1. EXECUTIVE SUMMARY

The aim of this Simplified Environmental Impact Statement (SEIS) is to examine the negative effects on the environment that undertaken by the proposed activity. Environment is defined as the natural and physical environment and the relationship of people with that environment. This means that the "environment" considered in an SEIS includes land, water, air, structures, living organisms, environmental values at the site, and the social, cultural, and economic aspects. The SEIS process is an important planning tool for the project proponent as it will inform on significant project effects and clearly define mitigation measures to avoid adverse impacts. Early identification of possible impacts promotes environmental sustainability, as anthropogenic factors are balanced with natural environmental needs.

The fuel filling station will be located at Aldeia Fatuk Francisco, Suco Camea, Post Administrative Cristo Rei, and Municipality of Dili, Timor Leste. The project area is nearby to the main road that connected Dili to Manatuto District. It is new business development proposed by CDFG Company, the purpose of supplying and delivering fuel directly to end users. Total land occupied by the CDFG Company and supporting facility is about 2,228 m^2, In which the fuel station with supporting facility for operation will be constructed.

. The main components of fuel development project compose of;

a. Pump Station
b. Storage tank
c. Discharge Area
d. Discharge Box
e. Oil Catcher
f. Fire Fighting
g. Office
h. Minimarket

The existing environmental component in the project location has been identified and collected the basic information such as:

- ✓ Physical condition consists of climate, topography, geology, surface water, underground water, coastal water, marine water and soil. Also, conducted several initial measurement for Air Quality, and soil in the project location
- ✓ Ecological condition consists of wetland area, Mangroves, coral, fisheries, protected area and national parks, flora and fauna, forest costal resources and others industry.

- ✓ Economic Component consists of employment sector, infrastructure facilities, Land use, use of forest and natural resources, fishing, agriculture and tourism
- ✓ Social components consists of Population and communities, health profiles of community, institution facilities, community and family structure, and land ownership Cultural Components Consist of cultural heritage, archeological site, sacred site, historical site, and unique landscape The potential environmental impacts during the pre-construction phase are community conflict on land status, disturbance on wild life habitats, negative perspective on community, unfair compensation, outside worker influx, and spread of diseases. Air and noise pollution, water and soil contamination, oil spills and leak, traffic management, workers and public health and safety are the identified environmental impacts during construction phase, operation and decommissioning phase to be concerned.

The Project has been classified as Category B by the *Autoridade Nasional Petrolium e Minerais* (ANPM) on 6 January 2021 (Letter ref. ANPM/DS/S/20/004). According to Timor-Leste law the project can be classified as Category B however the classification is based on the nature, size (Annex II), technical characteristic of the project as based on Decree-Law No. 5/2011, on Environmental License. Category B project to include projects that potentially cause environmental impacts and are subject to the procedure of Simplified Environmental Impact Statement (SEIS) developed based on the EMP in accordance with the Decree Law No. 5/2011.

The proposed project location close to tourism area and protected area the proponent considered these impacts during pre-construction, construction, operation and decommissioning phase within provides the environment management plan.

Potential impacts during pre-construction and construction period there are several vegetation's that will be removed, Increase air pollution , increase of noise level, Health & safety at work, Increasing of waste, Health and safety at work, Jobs Opportunities. Potential impacts during operation, maintenance and decommissioning phase soil contamination, increasing of waste (solid and liquid) Groundwater contamination may occur however all potential impacts will be prevented by proponent according to the mitigation measures in the Environmental Management Plan (EMP) document.

2. DETAILS OF PROJECT PROPONENT

The proposed project is an automotive fuel filling station, called CDFG Unip Lda which located at Aldeia Fatuk Francisco, Suco Camea, Post Administrative Cristo Rei, and

Municipality of Dili, and Timor-Leste. It occupies a total land of approximately 2,228 m^2, where the fuel station and its supporting facilities are built.

The contact detail of the project proponent and the principal contact is provided below.

OPERATOR	: CDFG Unipessoal Lda
Address	: Sagrada Familia, Bidau Santana, Cristo Rei, Dili, Timor Leste
Contact Person	: Mr. Cesario Dias Freitas Gusmão
Position	: Director (Owner)
Mobile	: (+670) 77285568/73392089
E-mail	: cesariodias04@gmail.co.id
Contact Person	: Mr. Luis Da Costa
Position	: Vice Director
Mobile	: (+670)77312268
E-mail	: -

3. DETAILS OF CONSULTANT WHO PREPARED SEIS

Consultant Name	:	HERSEGE LDA
Consultant TIN	:	12299016
Registered Address	:	Rua Taibessi, Alcrin, Lahane Oriental, Nain Feto, Dili
Telephone No. E-	:	(+670) 77522363 / 76717048 / 76641553
Email Address Type	:	hersegeconsultant10@gmail.com
of Company Status	:	Private Limited
of Company Place	:	Local Timorese
of Incorporation	:	Dili, Timor Leste
Date of Incorporation	:	13 July 2018

Experiences

Hersege Lda has involved in preparing Environmental Impact Assessment in several activities since it was established and has a qualified and experiences members in Environmental Engineering, Geological Engineering, Mining Engineering and Instrumentation Engineering (Oil and Gas Operation). Following are the experiences of the consultant and it member's qualification:

Table 1. Experiences of the Hersege Lda Consultant

NO	COMPANY	TYPE OF SERVICES	PROJECT ACTVITIES	PROJECT LOCATION	STATUS
1	Nananiu Unip. Lda	Mining And Environmental License	River Sand Mining	Matai, Suai	On Process
2	China Wu Yi Co.,Ltd	Mining And Environmental License	Quarry And River Sand Mining	Ulmera, Liquica	On Process
3	Montana Diak Unip Lda	Mining And Environmental License	River Sand Mining,	Hera, Dili	On Process
4	Jucostim Lda	Mining License	Quarry and River Sand Mining	Dato, Liquisa	On Process
5	Xirevo Unip Lda	Mining And Environmental License	Quarry and River Sand Mining	Dili, Liquica	On Process
6	Borala Lda	Environmental License	Fuel Filling Station	Dili, Viqueque	**COMPLETED**
7	Green Diamond Unip Lda	Environmental License	Fuel Filling Station	Oe-cussi	**COMPLETED**
8	Jesoria Unip Lda	Environmental License	Fuel Filling Station	Viqueque	**COMPLETED**
9	Tatoli Fuel Lda	Environmental License	Fuel Filling Station	Lospalos	**COMPLETED**
10	Queybubun Laco Conbustivel Lda	Environmental License	Fuel Filling Station	Maliana	**COMPLETED**
11	AdyPay Lda	Environmental License	Fuel Filling Station	Ossu	**COMPLETED**
12	Mekar Fuel Lda	Environmental License	Fuel Filling Station	Lurumata, Dili	**COMPLETED**
13	Nusabe III Unip Lda	Environmental License	Fuel Filling Station	Aileu	**COMPLETED**
14	Ergin Fuel	Environmental License	Fuel Filling Station	Metinaro	**COMPLETED**
15	Mega Petroleum	Environmental License	Fuel Filling Station	Fatuhada, Dili	**COMPLETED**
16	Super Fuel	Environmental License	Fuel Filling Station	Kuluhun, Dili	**COMPLETED**
17	Titer Unip Lda	Environmental License	Fuel Filling Station	Losaplos	**COMPLETED**
18	Klean Gas Lda	Environmental License	Retail Gas Station	Dili	On Process
19	Abom Kase Fuel	Environmental License	Fuel Filling Station	Maliana	**COMPLETED**
20	GSGP Petrol Station	Environmental License	Fuel Filling Station	Ainaro	**COMPLETED**
21	Vida Diak Petroleo	Environmental License	Fuel Filling Station	Aipelu	**COMPLETED**
22	Xalila Fuel	Environmental License	Fuel Filling Station	Dili	**COMPLETED**
23	Divita Fuel Unip Lda	Environmental License	Fuel Filling Station	Tibar	**COMPLETED**
24	Ai-dalau Furak Unip Lda	Environmental License	Fuel Filling Station	Same	**COMPLETED**
25	ETO Lda	Environmental License	Fuel Filling Station	Mandarin, Balide and Manatuto	**COMPLETED**
26	Global	Environmental License	Fuel Filling Station	Laga	**COMPLETED**

Qualification and Experiences of each member

- ✓ **Herculano Ivo. L. Granadeiro** is Mining Engineer with 5 years of experiences in preparing the mining license activities and Environmental Impact Assessment for fuel filling stations and mining activities for obtaining the Environmental License.
- ✓ **Geovanio Alves,** is Geological Engineer with 4 years of experiences in preparing the mining license activities and Environmental Impact Assessment for fuel filling stations and mining activities for obtaining the Environmental License. During the study in Indonesia, Geovanio has done several geological surveys for mineral in Kalimantan, Papua, Halmahera and Sumatera.
- ✓ **Sergio Valdano Pinto** is a Mining Engineer and has diploma of engineering in instrumentation (oil and gas operation), with 5 years of experiences in preparing the mining license activities and Environmental Impact Assessment for fuel filling stations, mining activities and involved in preparation of EIA for China Harbour Timor Temporary Jetty in Mota Ikun for obtaining the Environmental License. Also, Sergio has attended training for Oil and Gas Safety Passport and a safety briefing in Petronas Chemical Methanol Labuan, Malaysia.
- ✓ **Patricio de Oliveira Ximenes** is Environmental Engineer with 4 year of experiences in preparing the mining license activities and Environmental Impact Assessment for fuel filling stations and mining activities for obtaining the Environmental License and as an environmental officer in China Wu Yi, Co.,Ltd
- ✓ **Sergio Martires,** is Mining Engineer with 3 year of experiences in preparing the mining license activities and Environmental Impact Assessment for fuel filling stations and mining activities for obtaining the Environmental License

4. DESCRIPTION OF THE PROJECT

The CDFG Unip Lda is located at Aldeia Fatuk Francisco, Suku Camea, Cristo Rei and the geographic coordinates are 8°34’14.45”S Latitude and 125°37’09.80”E Longitude. It is an automotive fuel filling station that supplies gasoline and diesel fuel to the customers. CDFG Unipessoal Lda occupies a total land of approximately 2,228 m^2 where the facility’s components such as underground storage tanks with capacity of 20,000 L for each fuel products such as gasoline and diesel; two fuel dispensers where each of the dispensers has two nozzles, a simple canopy, minimarket and a supporting office are available.

The main activities during the operational stage of CDFG Unip Lda include tanker unloading, storage of fuel on site, dispensing fuel into vehicles' tankers, carrying repair or maintenance, and ensure fire safety during the operation. The fuel filling station operates from seven days in a week, Monday to Sunday from six in the morning till eight at night. It consists of two shifts that are attended by staffs/pump attendants for each shift.

The following map shows the respective features of the existing land pattern around the fuel filling station. There are small businesses and shops located in front of the fuel filling station, and other important existing features, such as the Public School, Public Clinic and others government institution office, (refer to the following map).

a. Identification of the Project

The fuel filling station will be located at Fatuk Francisco, Camea, Cristo Rei and Dili Municipality, The project area nearby national road is new business development proposed by CDFG Unip Lda, Company for the purpose of supplying and delivering fuel directly to end users. The geographic coordinates of the location is 8°34'14.45"S Latitude and 125°37'09.80"E Longitude. Total land occupied by the fuel storage and supporting facility is about 2,228 m2, in which the fuel station with supporting facility for operation will be constructed shown in Figure 1.

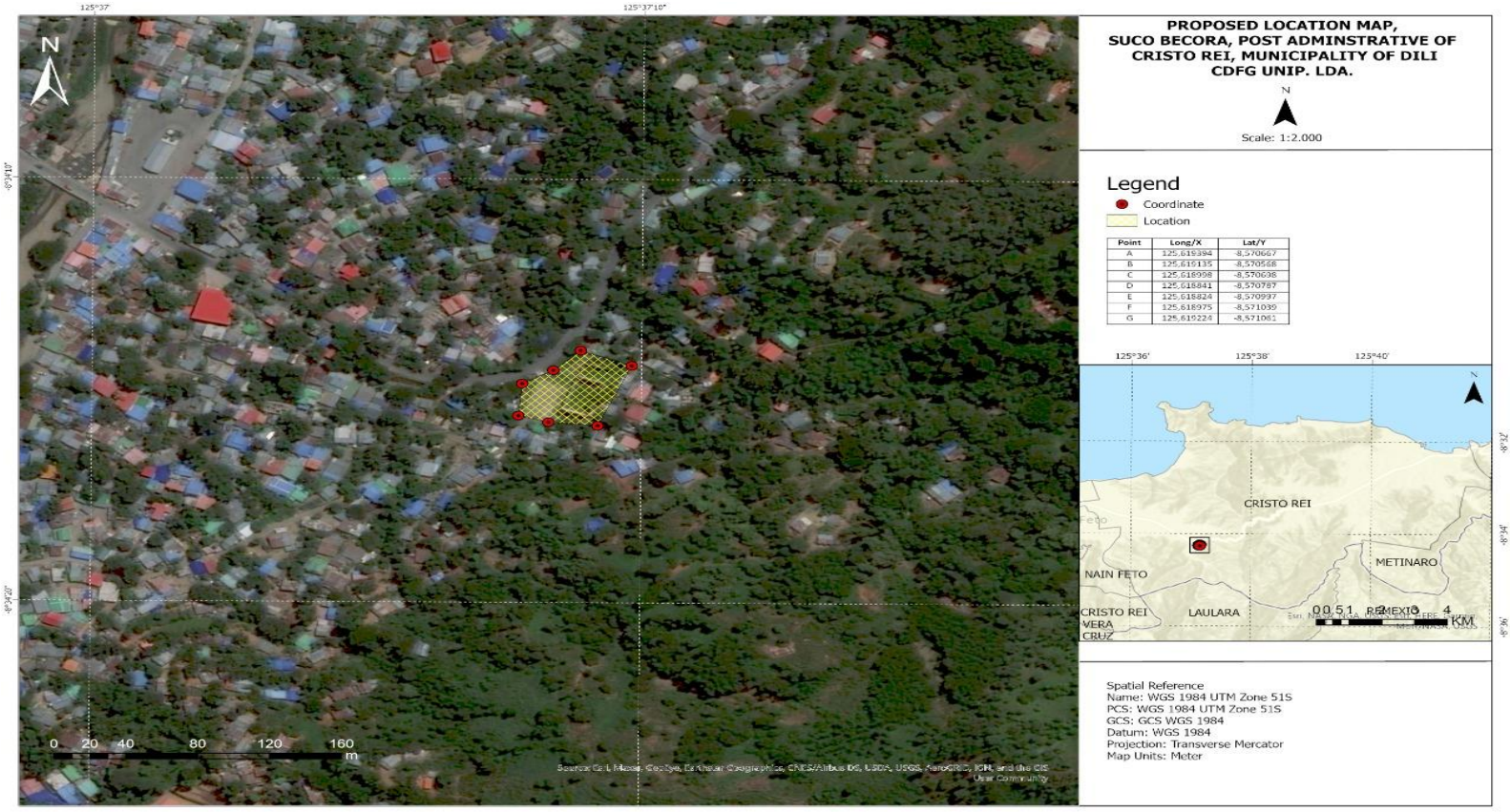


Figure 1. Proposed Location Map

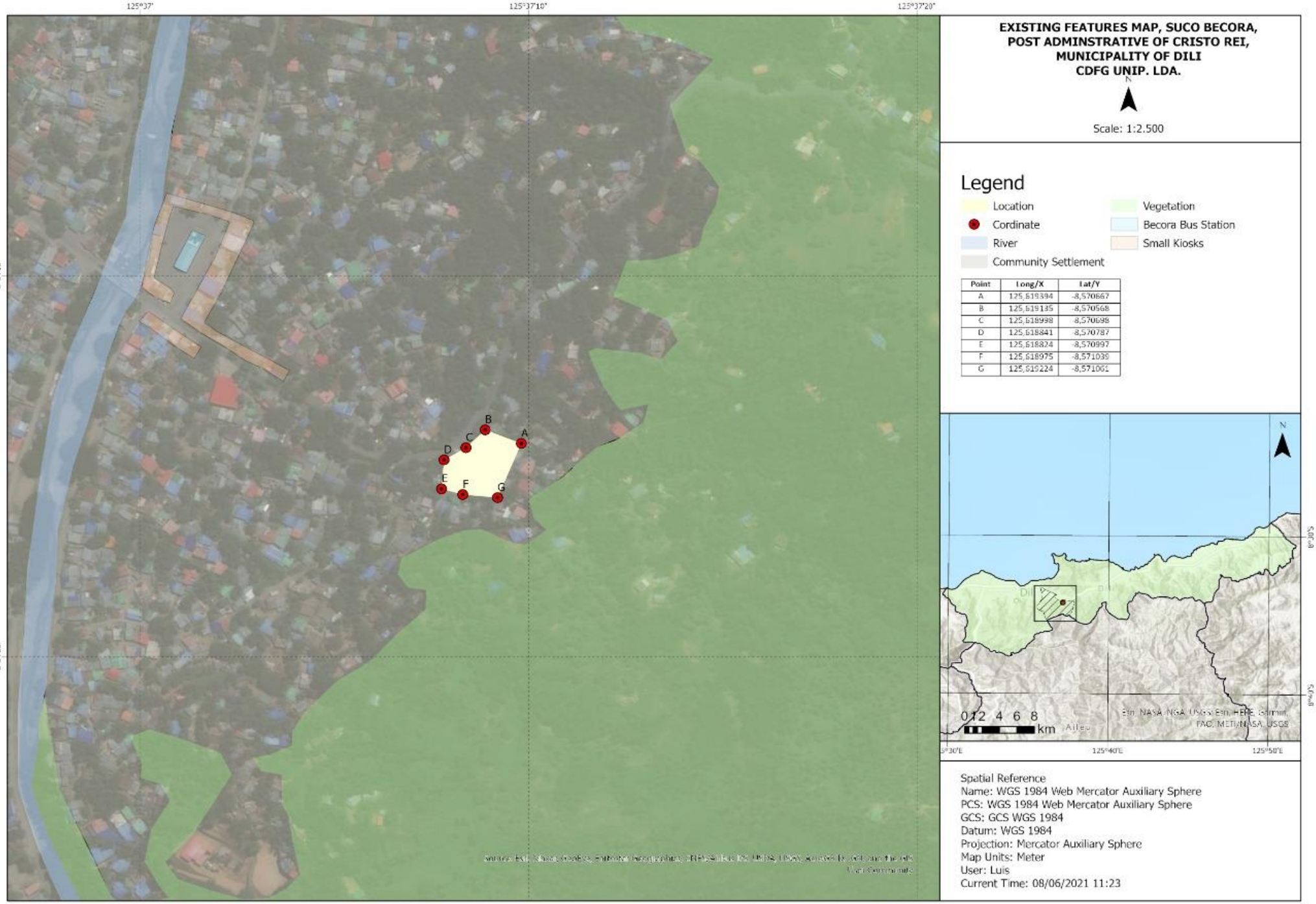


Figure 2. Existing Features Map

b. Category of the Project

In accordance to the definition of the project category set out in article 4 of the Decree Law no.5/2011 Environmental Licensing and Annexes 1 and 2 of the law, this project (Fuel Station and Storage) is defined as a category (B). The fuel station project components fall into the Petroleum Industry Sector (Storage sites for Oil / Natural Gas / Petrochemicals or Chemicals) and due to the environmental impact may occur during the activities.

c. Brief description of the Nature, size and Location of the Project

The CDFG is located at Aldeia Fatuk Francisco, Suku Camea, Cristo Rei and the Geographic coordinates are 8°34'14.45"S Latitude and 125°37'09.80"E (Longitude). It is an automotive fuel filling station that supplies gasoline and diesel fuel to the customers. CDFG occupies a total land of approximately 2,228 m^2 where the facility's components such as underground storage tanks with capacity of 20,000 L for each fuel products such as gasoline and diesel; and two fuel dispensers where each of the dispensers has four nozzles, a simple canopy, minimarket and a supporting office are available.

The main activities during the operational stage of CDFG include tanker unloading, storage of fuels on site, dispensing fuel into vehicles' tank, carrying repair or maintenance, and ensure fire safety during the operation. The fuel filling station operates from seven days in a week, Monday to Sunday from six in the morning till eight at night. It consists of two shifts that are attended by eight staffs/pump attendants for each shift.

Inter-Municipality and intra-Municipality public and private transportation are serviced by Motor bikes, Buses and others public transportation. This existing road is the main road that connects to Suco Hera and heading to Post Administrative Metinaro, Municipality Dili. The access road to the proposed project is good condition.

The proposed location is Government land, in the Northern part of the project the proposed project is bordered with Public Road, Eastern Part is Community residences, Western part is bordered with community residences and Southern is bordered with community residences.

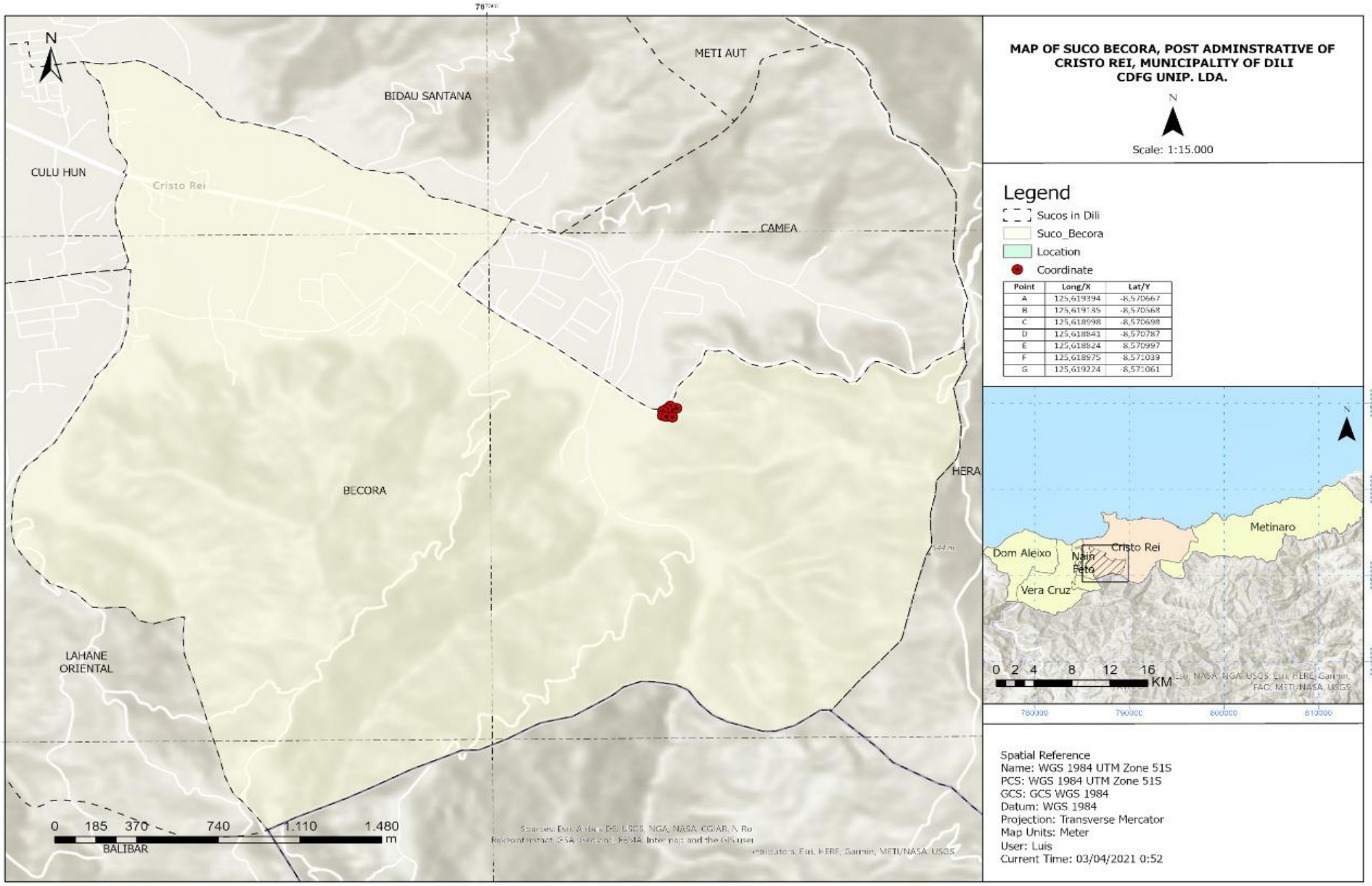
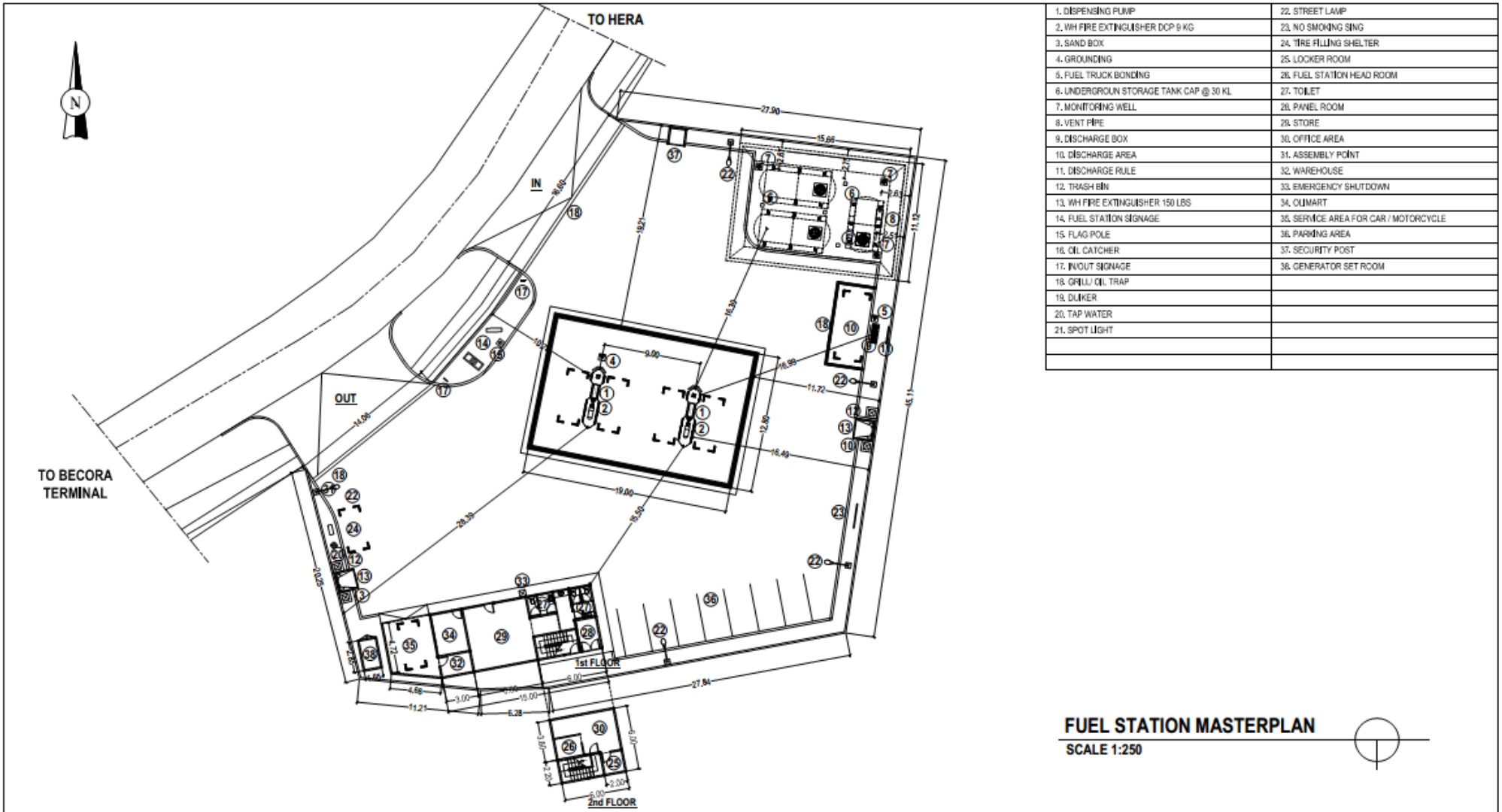


Figure 3. Suco Map



1. DISPENSING PUMP	22. STREET LAMP
2. WH FIRE EXTINGUISHER DCP 9 KG	23. NO SMOKING SING
3. SAND BOX	24. TIRE FILLING SHELTER
4. GROUNDING	25. LOCKER ROOM
5. FUEL TRUCK BONDING	26. FUEL STATION HEAD ROOM
6. UNDERGROUN STORAGE TANK CAP @ 30 KL	27. TOILET
7. MONITORING WELL	28. PANEL ROOM
8. VENT PIPE	29. STORE
9. DISCHARGE BOX	30. OFFICE AREA
10. DISCHARGE AREA	31. ASSEMBLY POINT
11. DISCHARGE RULE	32. WAREHOUSE
12. TRASH BIN	33. EMERGENCY SHUTDOWN
13. WH FIRE EXTINGUISHER 150 LBS	34. OLIMART
14. FUEL STATION SIGNAGE	35. SERVICE AREA FOR CAR / MOTORCYCLE
15. FLAG POLE	36. PARKING AREA
16. OIL CATCHER	37. SECURITY POST
17. IN/OUT SIGNAGE	38. GENERATOR SET ROOM
18. GRILL/ OIL TRAP	
19. DUIKER	
20. TAP WATER	
21. SPOT LIGHT	

PREPARED BY	PROJECT OWNER	PROJECT TITLE	DRAWING TITLE		SCALE	AUTORIDADE NACIONAL DO PETROLEO E MINERAIS TIMOR-LESTE		NOTE
	CDFG UNIPESSOAL, LDA	CDFG FUEL STATION	MASTERPLAN		1:250	CHECKED BY	APPROVED BY	
		PROJECT LOCATION	DRAWN BY	CHECKED BY	DRAWING NO			
		BECORA, DILI TIMOR - LESTE				CESALTINO BABO Downstream Project & Facility Appraisal	JUVENCIA MJDD COSTA Downstream Manager	
			DATE:	DATE:		DATE:	DATE:	

Figure 4. Site Layout Plan

- **Underground Tank**

The proposed storage of fuel on site consists of two underground storage tanks. The tanks can withstand a volume of 15,000 liters each. The indicated underground storage tanks will supply; diesel, Gasoline. The underground storage tanks are going to be installed as shown in the 'Underground Tank Cross-Section', as outlined in the 'Guidance for the Design, Construction, Modification and Maintenance of Fuel Filling Stations'. The bottom structure of the tank is going to be constructed from a 7-10 mm of asphalt coating and 500 mm of compacted fine sand. The underground tank is going to be anchored to ground with straps that are non-corrosive, and must offer good strength to hold the tank firmly. Proper care must be taken to ensure that the excavation does not collapse. Once the underground tank is in place, it is important that the gap between the wall and the tank shall be filled with the appropriate backfill up to the neck of the tank. The interstitial space is going to be continuously monitored by means of a leak detection system being of Class 2 system. Furthermore, tanks constructed from metal steel must be coated for the protection from corrosion. Such coating must be tested from the supplier according to the listed standard by ANPM.

The tanks are manufactured from coated steel. These are called composite tanks. The manhole section is fitted with a overfill protection device and self-contained manhole which is impervious to hydrocarbon and is sealed to prevent contamination to the surrounding environment. The materials used to make the tanks are corrosive free metals. A documented leak monitoring system will be put in place. All the installation and operation of fuel filling station should rely on Regulation No. 3 /2014 on Installation and Operation of Fuel Filling Station.

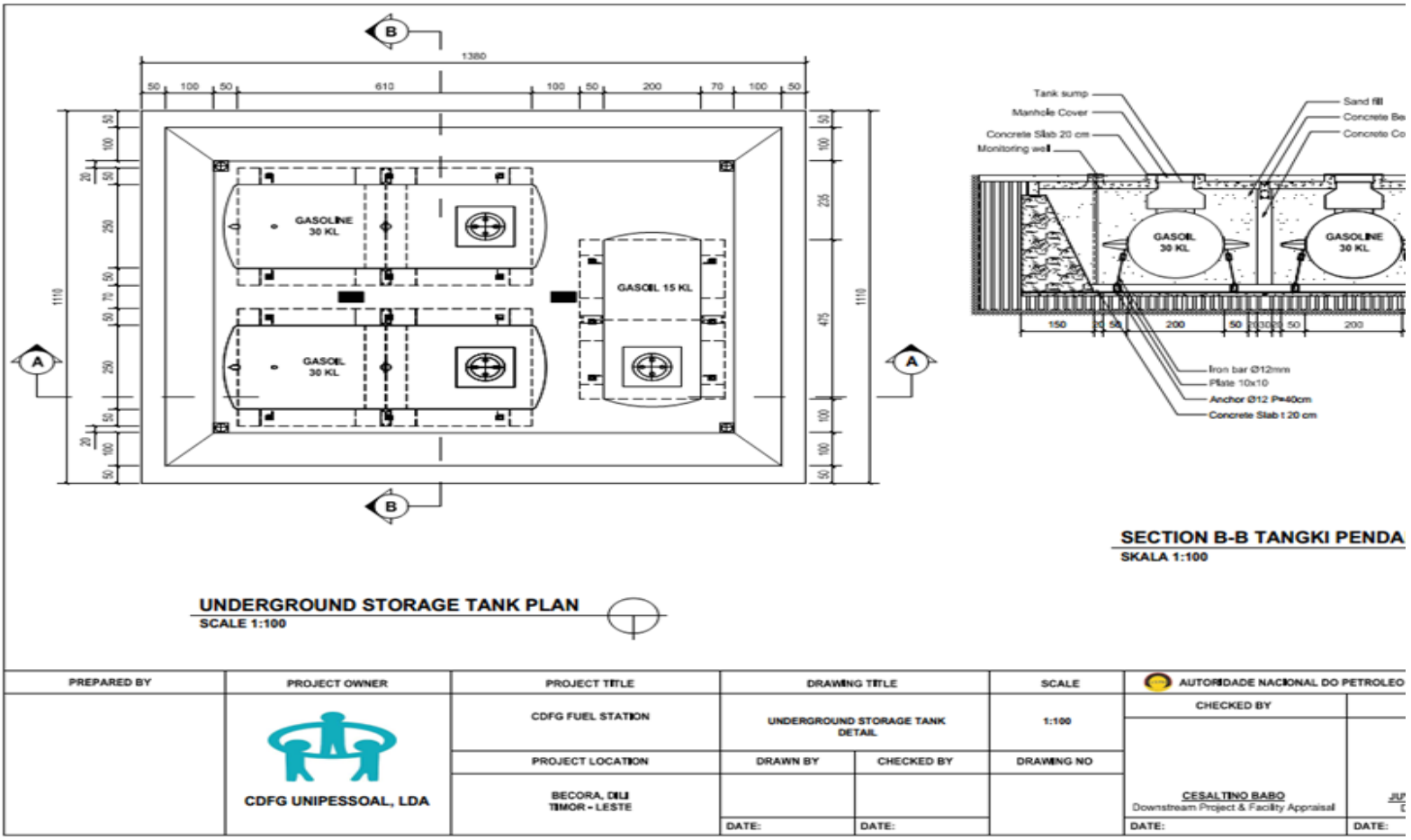
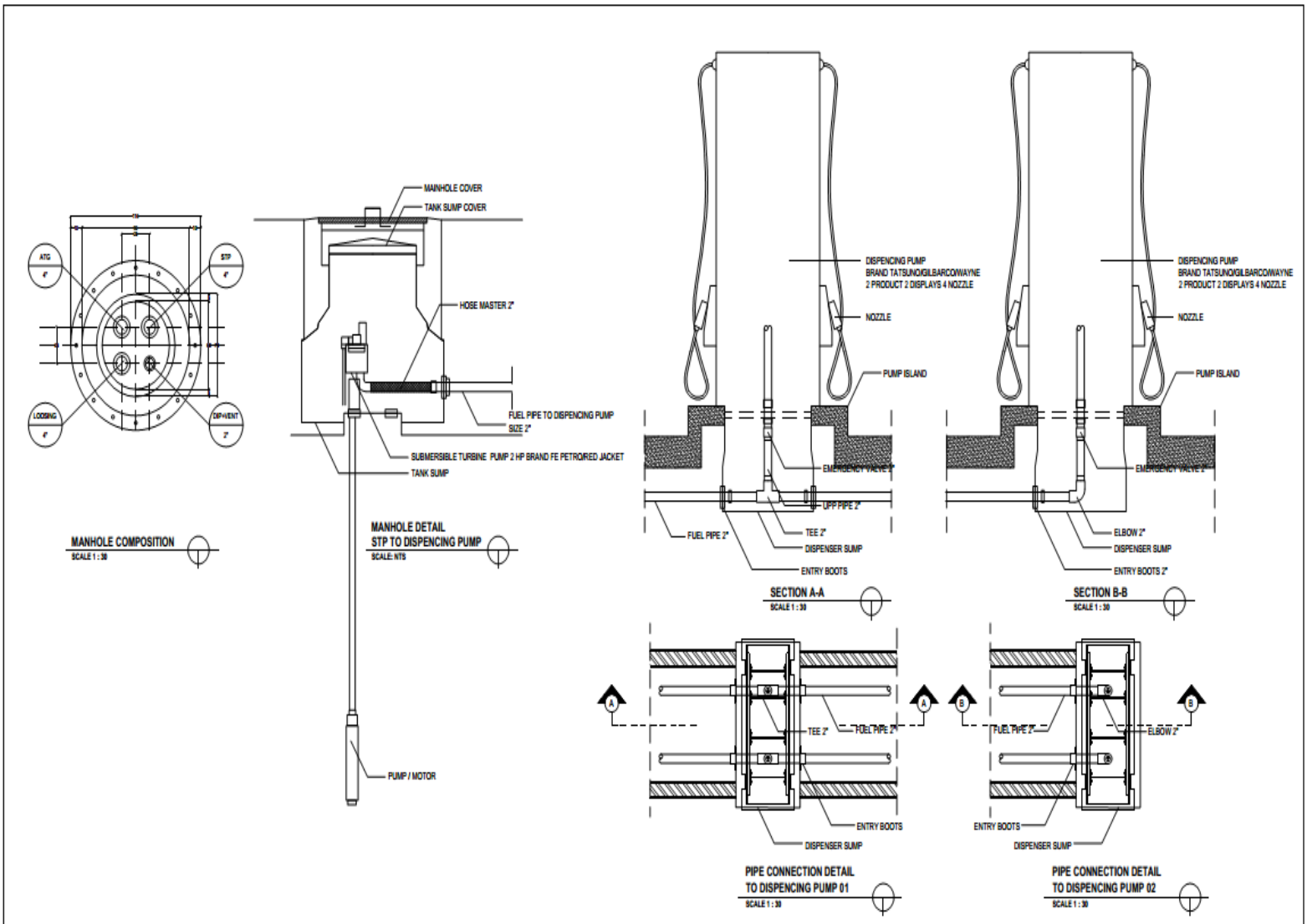


Figure 5. Underground Tank

- **Dispensers**

The fuel dispenser, pump, and piping system that connect to the storage tank are important components of the system. Automatic control mechanism and monitoring equipment will be applied including flow meter to measure flow and quantity of fuel from one place to the other as well as detecting leak from the difference between fuel flowing in and the volume recorded at the tank. The same principle is applied to monitor the flow of fuel out of the storage tank and the volume dispense at the dispenser facility. A fuel dispenser will be installed in the fuel filling station consists of four nozzle (two for gasoline and two for fuel diesel). Every dispenser has extinguisher and extinguishers are also located in the office and filling point area.

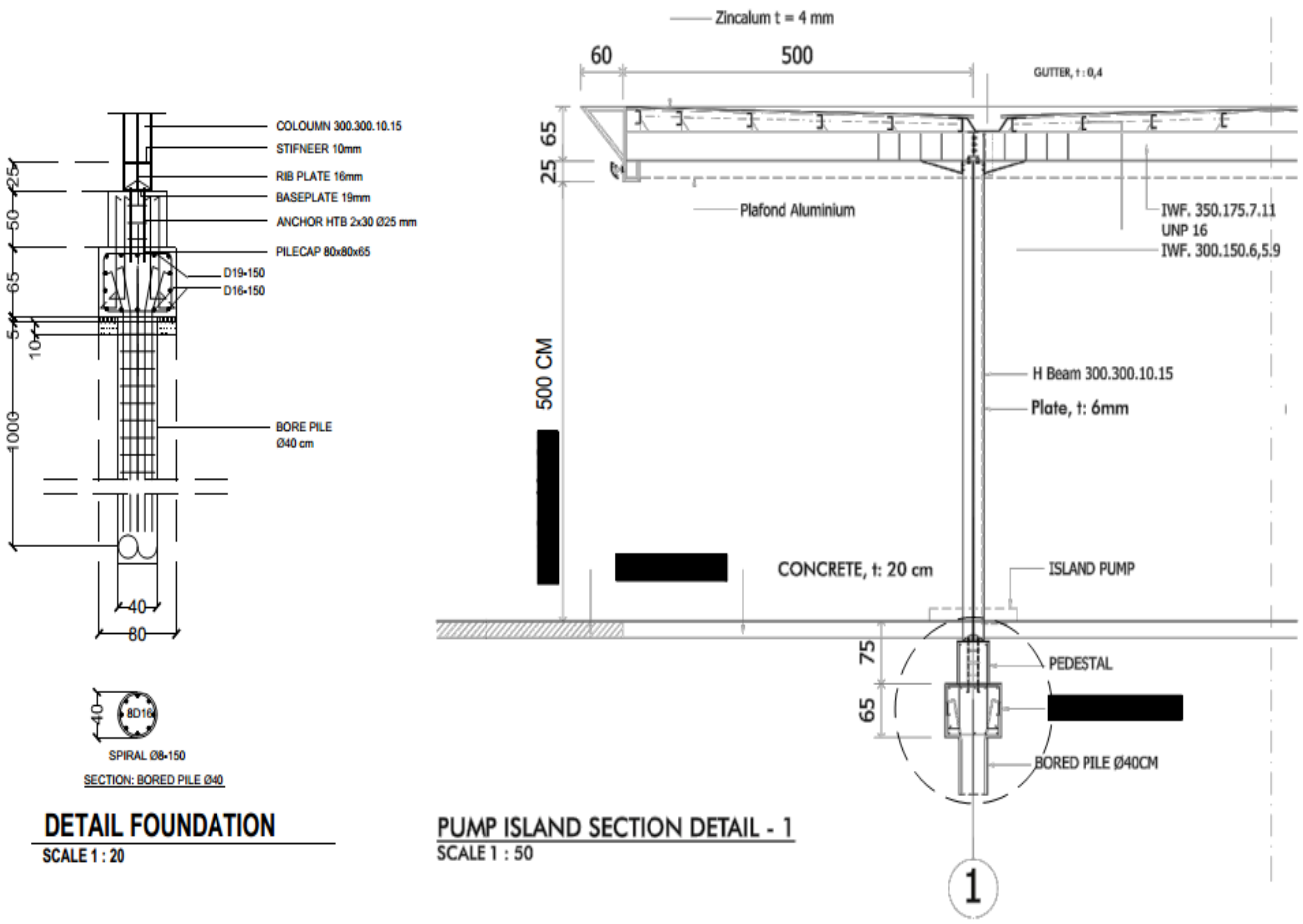


PREPARED BY	PROJECT OWNER	PROJECT TITLE	DRAWING TITLE		SCALE	AUTORIDADE NACIONAL DO PETROLEO E MINERAIS TIMOR-LESTE		NOTE
	CDFG UNIPESSOAL, LDA	CDGF FUEL STATION	PIPE CONNECTION		1 : 30	CHECKED BY	APPROVED BY	
		PROJECT LOCATION	DRAWN BY	CHECKED BY	DRAWING NO			
		BECORA, DILI TIMOR - LESTE				CESALTINO BABO Downstream Project & Facility Appraisal	CORNELIO RUSSINI PINTO Downstream Inspection Manager	
			DATE:	DATE:		DATE:	DATE:	

Figure 6. Fuel Dispenser

- **Pump Island**

Pump Island to set up dispensers on it, size of the pump island determine vehicle in fuel station, and determine the distance between the dispenser and the vehicle to refueled, dimension of pump island; the length is 5 meter, height of pump island is 0.2 meter, and the width is 1.4 meter.



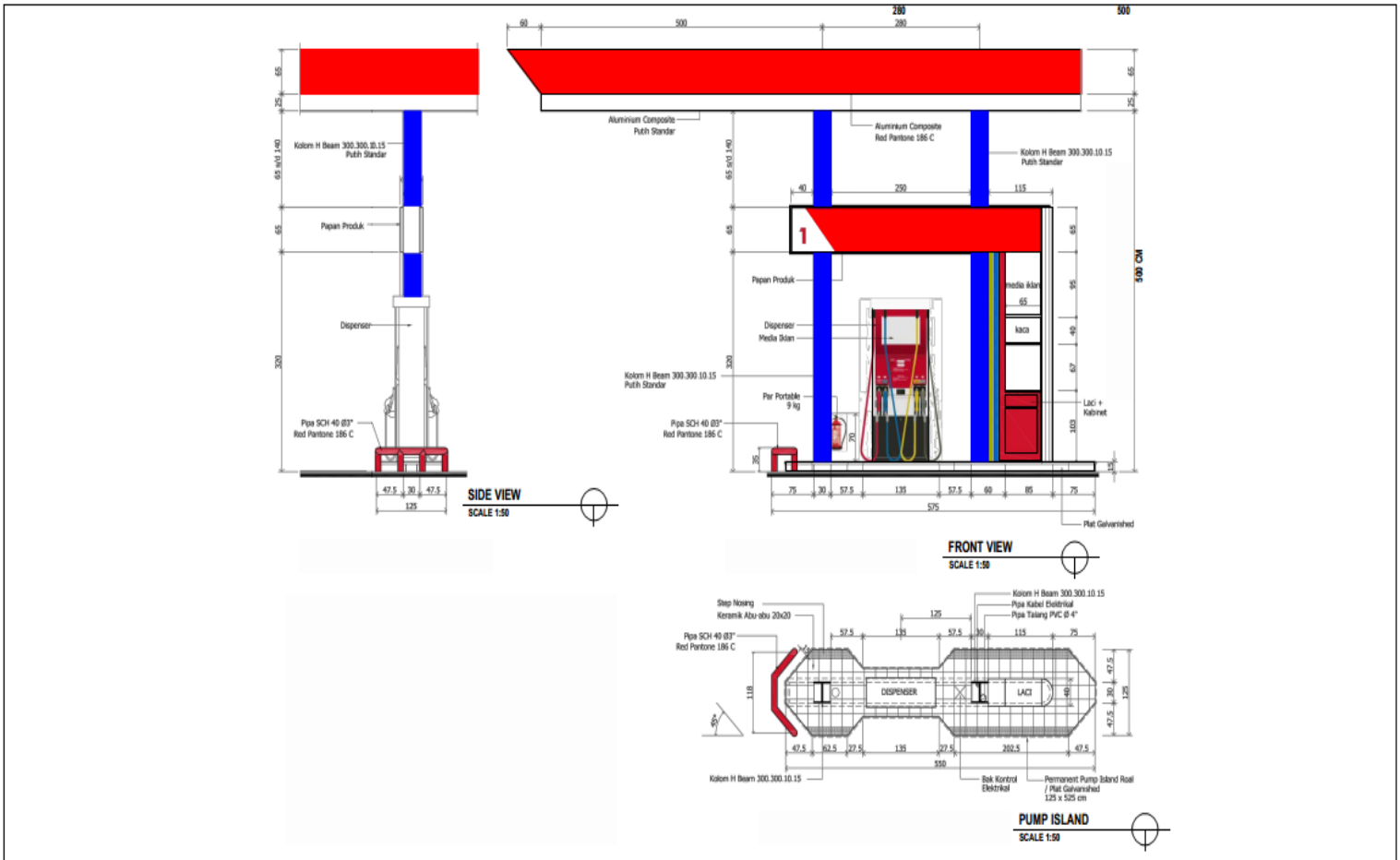
PREPARED BY	PROJECT OWNER	PROJECT TITLE	DRAWING TITLE		SCALE	AUTORIDADE NACIONAL DO PETROLEO E MINERAIS TIMOR-LESTE		NOTE
	CDFG UNIPESSOAL, LDA	CDFG FUEL STATION	PUMP ISLAND SECTION DETAIL		1:50	CHECKED BY	APPROVED BY	
		PROJECT LOCATION	DRAWN BY	CHECKED BY	DRAWING NO			
		BECORA, DILI TIMOR - LESTE				CESALTINO BABO Downstream Project & Facility Appraisal	JUVENCIA MJDD COSTA Downstream Manager	
			DATE:	DATE:		DATE:	DATE:	

Figure 7. Pump Island

- **Canopy**

Canopies structure shall be at a height of not less than 4.5 meters from the ground and should be fireproof type. Cladding installed shall be non-combustible and be according to ANPM standards. Such a standard also holds for price display pole signs. The function of a canopy is to:

- ✓ Provides a degree of weather protection; canopy can be a shelter;/shade from weather condition such as sun
- ✓ Withstand the elements such as wind and rain

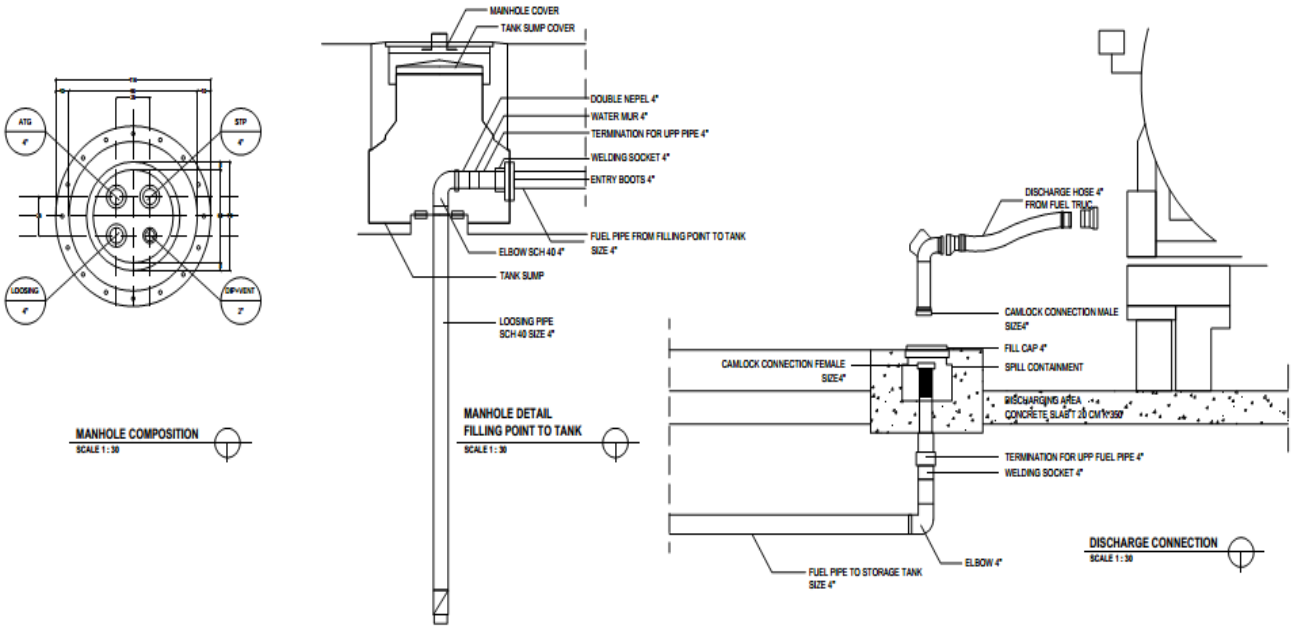


PREPARED BY	PROJECT OWNER	PROJECT TITLE	DRAWING TITLE		SCALE	AUTORIDADE NACIONAL DO PETROLEO E MINERAIS TIMOR-LESTE		NOTE
	CDFG UNIPESSOAL, LDA	CDFG FUEL STATION	CANOPY DESIGN		1:50	CHECKED BY	APPROVED BY	
		PROJECT LOCATION	DRAWN BY	CHECKED BY	DRAWING NO	CESALTINO BABO Downstream Project & Facility Appraisal	JUVENCIA MJDD COSTA Downstream Manager	
		BECORA, DILI TIMOR - LESTE	DATE:	DATE:		DATE:	DATE:	

Figure 8. Canopy

➢ **Underground Piping System**

The proponent shall use appropriate piping with fusion welded couplings terminated on either end with rubber boots within the pump and tank sumps. No joints are made between the tank and the pump thereby ensuring that if a leak occurs it is contained within the sumps, ensuring that if a breakage occurs in the inner skin, the fuel will run back to the tank containment sump where it is able to be removed.

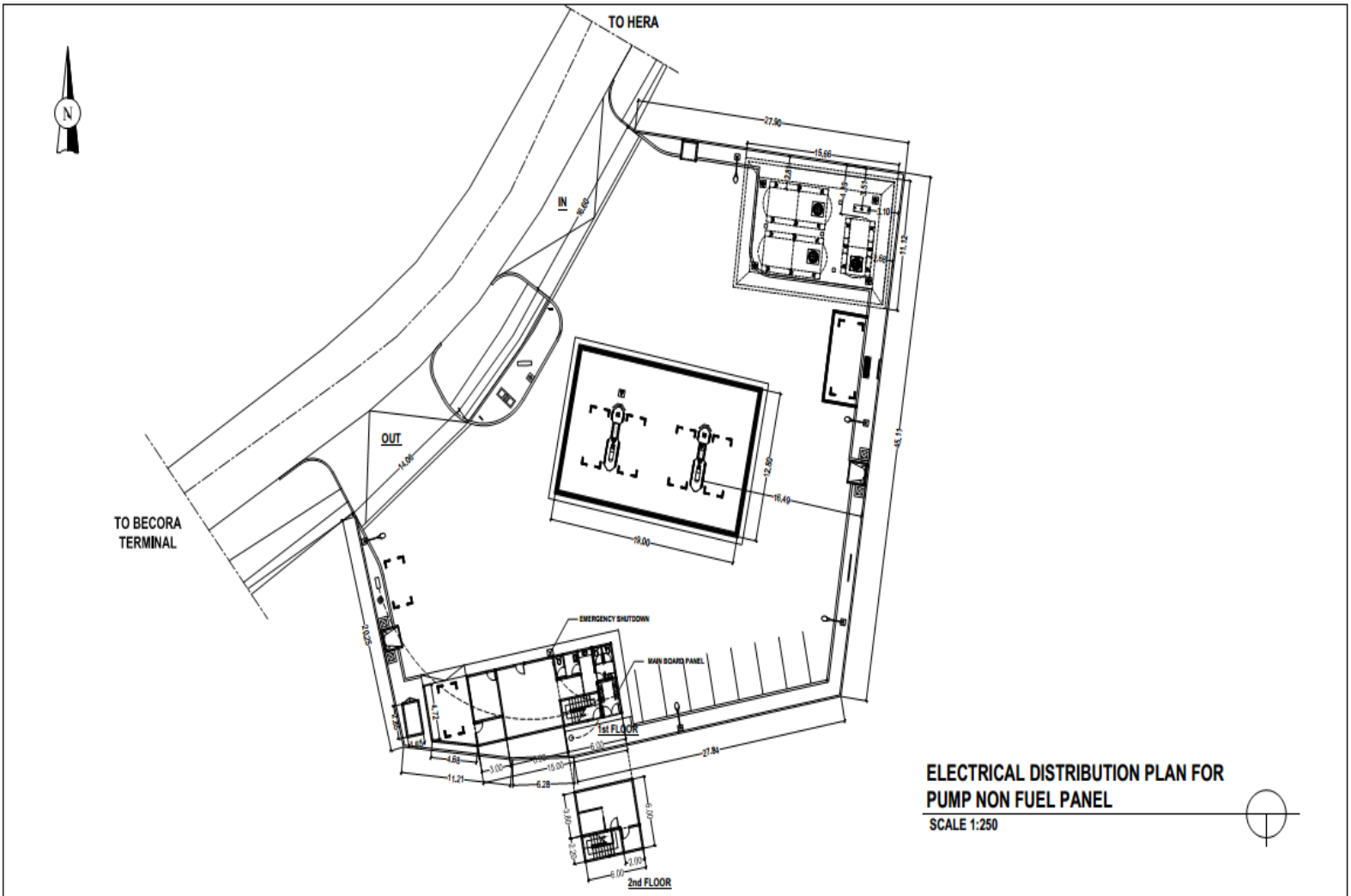


PREPARED BY	PROJECT OWNER	PROJECT TITLE	DRAWING TITLE		SCALE	AUTORIDADE NACIONAL DO PETROLEO E MINERAIS TIMOR-LESTE		NOTE
	CDFG UNIPESSOAL, LDA	CDGF FUEL STATION	DISCHARGE CONNECTION		1 : 30	CHECKED BY	APPROVED BY	
		PROJECT LOCATION	DRAWN BY	CHECKED BY	DRAWING NO	CESALTINO BABO Downstream Project & Facility Appraisal	CORNELIO RUSSINI PINTO Downstream Inspection Manager	
		BECORA, DILI TIMOR - LESTE	DATE:	DATE:		DATE:	DATE:	

Figure 9. Pipe Distribution Plan

- **Electrical System**

The electrical system at the filling station will be designed by a quality engineer and in accordance with the electric power regulations in Timor-Leste (EDTL) and other electrical standards such as National Electric Code Fuel Filling Station regulation based opn the standard that adopted by ANPM (National Electrical Code (NEC), or NFPA 70). The electrical system will include power supply to the mechanical pumps, underside of the steel canopy, the offices, and Machine/compressor room and security systems. On completion of the electrical works, it is expected that Timor Leste (EDTL) Power will approve the electrical works and issue a power connection certificate to the proponent.



PREPARED BY	PROJECT OWNER	PROJECT TITLE	DRAWING TITLE		SCALE	AUTORIDADE NACIONAL DO PETROLEO E MINERAIS TIMOR-LESTE		NOTE
	CDFG UNIPESSOAL, LDA	CDFG FUEL STATION	ELECTRICAL DISTRIBUTION PLAN		1:250	CHECKED BY	APPROVED BY	
		PROJECT LOCATION	DRAWN BY	CHECKED BY	DRAWING NO			
		BECORA, DILI TIMOR - LESTE				CESALTINO BABO Downstream Project & Facility Appraisal	JUVENCIA MJDD COSTA Downstream Manager	
			DATE:	DATE:		DATE:	DATE:	

Figure 10. Electrical Plan

- **Water Treatment System**

Water treatment is any process that improves the quality of water to make it more acceptable for a specific before disposal to the environment. The fuel filling station is facility with a water treatment system for treating wastewater that may be contaminated with oil or fuel and separating oil from water. The floor areas where there is likely spillage, such as area dedicated to unloading liquid fuels from the fuel tanker into the storage tanks and the forecourt area are made impermeable (cemented) and allow for drainage into the water treatment system.

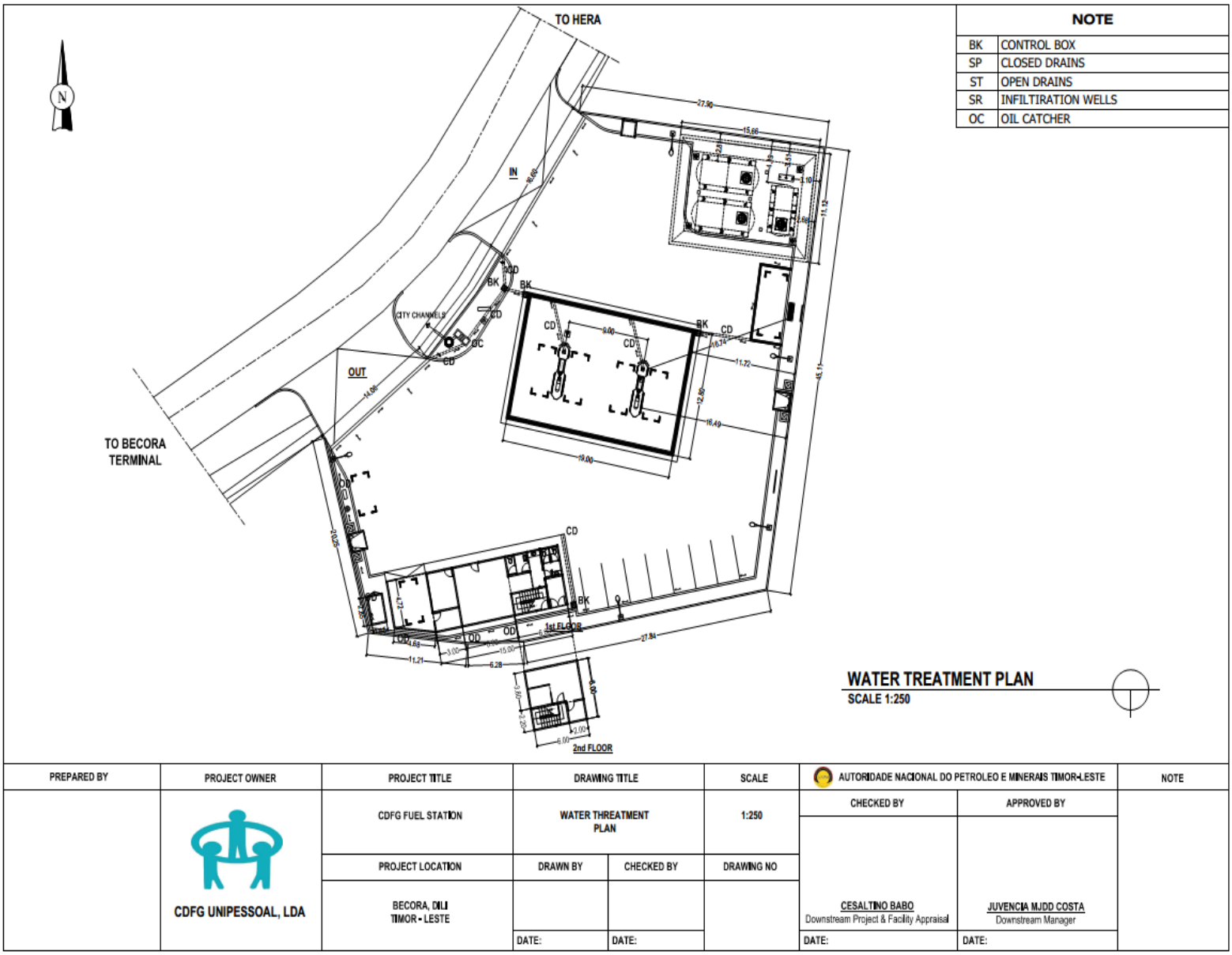


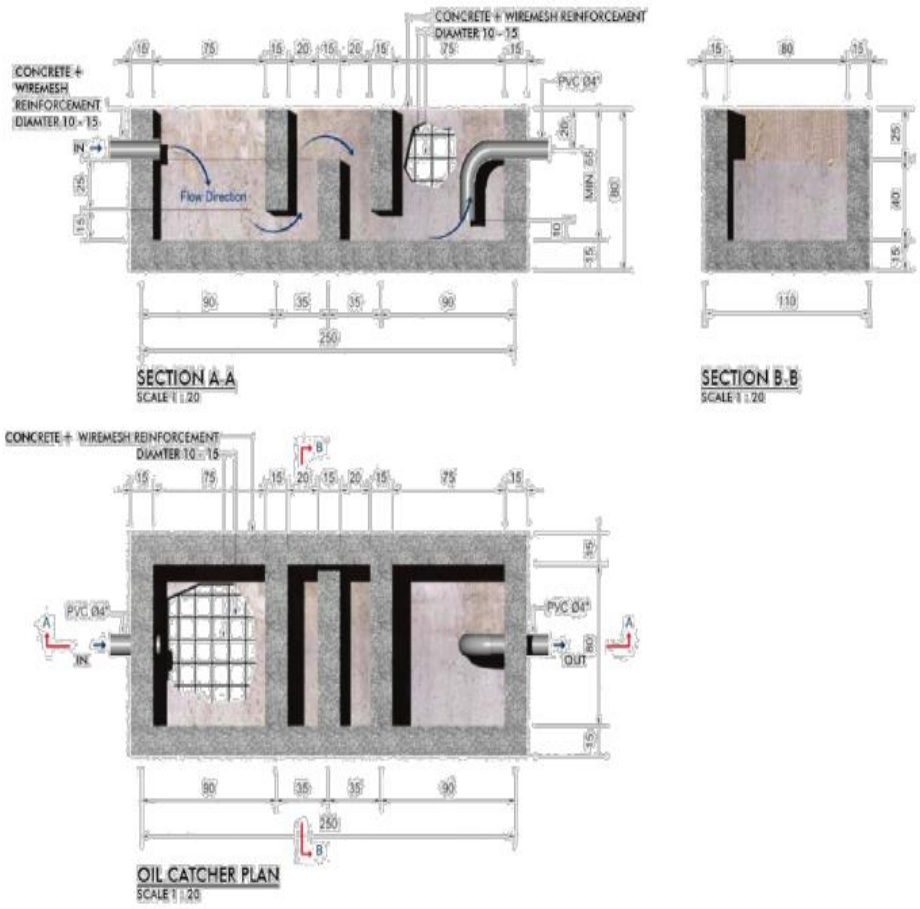
Figure 11. Water Treatment Systems

- **Petrol Interceptor/Oil Catcher**

A petrol interceptor is a trap used to filter out hydrocarbon pollutants from rainwater Runoff, oil spills and leak as well. It is typically used in road construction and on Petrol Station forecourts to prevent fuel contamination of streams carrying away the runoff.

Petrol interceptors work on the premise that some hydrocarbons such as petroleum and diesel float on the top of water. The contaminated water enters the interceptor typically after flowing off roads or forecourts and entering a channel drain before being deposited into the first tank inside the interceptor. The first tank builds up a layer of the hydrocarbon as well as other scum. Typically petrol interceptors have 3 separate tanks each connected with a dip pipe, as more liquid enters the interceptor the water enters into the second tank leaving the majority of the hydrocarbon behind as it cannot enter the dip pipe, whose opening into the second tank is below the surface of the water.

However some of the contaminants may by chance enter the second tank. This second tank will not build up as much of the hydrocarbon on its surface. As before, the water is pushed into the third tank, by fluid dynamics, as more water enters the second. The third tank should be practically clear of any hydrocarbon floating on its surface.



PREPARED BY	PROJECT OWNER	PROJECT TITLE	DRAWING TITLE		SCALE	AUTORIDADE NACIONAL DO PETROLEO E MINERAIS TIMOR-LESTE		NOTE
	CDFG UNIPESSOAL, LDA	CDFG FUEL STATION	OIL CATCHER		1:20	CHECKED BY	APPROVED BY	
		PROJECT LOCATION	DRAWN BY	CHECKED BY	DRAWING NO	CESALTINO BABO Downstream Project & Facility Appraisal	JUVENCIA MJDD COSTA Downstream Manager	
		BECORA, DILI TIMOR - LESTE				DATE:	DATE:	
			DATE:	DATE:				

Figure 12. Oil Catcher

d. Affected Area

The following map shown are indicates the affected area in the proposed site. Having mentioned the affected area, the proponent considered these impacts during pre-construction, construction, operation and decommissioning phase within provides the environment management plan. During the construction period there are several vegetation's that will be removed such as Delonix Regia, Hudi, Has, Ai Kaisote, Tamarin Tree (*Sukaer*), Ailok, Ai Cafe and a bar house that will be removed and build a supporting office other facilities according to new drawing and minimarket for CDFG Unipessoal Lda.

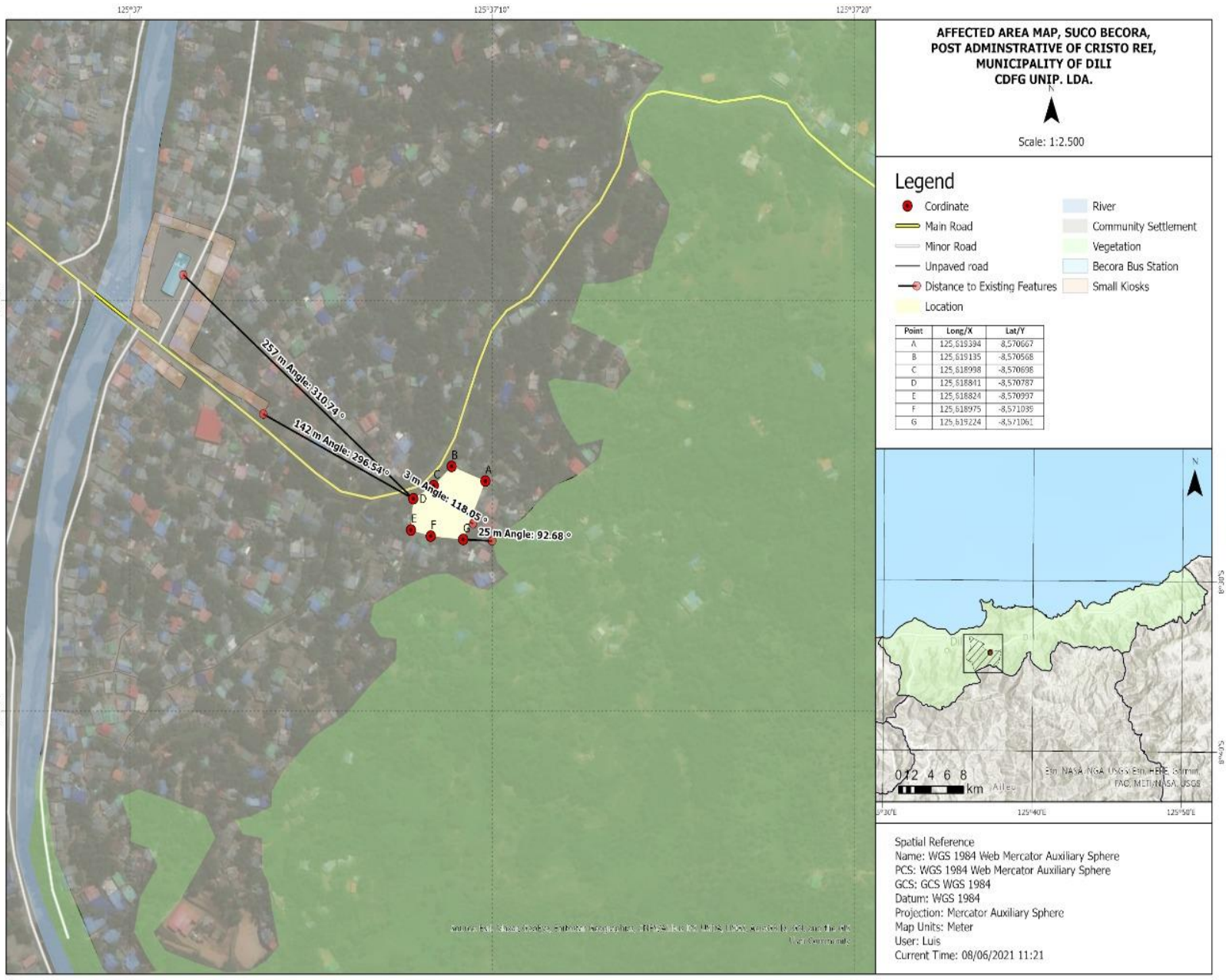


Figure 13. Affected Area Map

e. Justification and Need for The Project

There are a number of factors considered as motives why the proposed development should be implemented in this particular site which draw the attention to support Camea development project. Some of the validating factors considered include:

- Accessibility: The accessibility of the site is relatively favorable where the site is located adjacent to the inter-municipality road of Becora to Hera
- Demand for Petrol Station Services: The demand of petroleum and related services in this area is highly required, due to the motorized traffic in this post Suco is high and the actual condition of Fuel station in Camea doesn't fulfill the need of the costumer in Camea, Terminal and others place.
- The proper standard. There are several retail sellers in the streets, which may not be sufficient to response domestic demand. With this facility in place, the motorists will have a shorter distance to obtain the products and services.

Low Risk to the Locals: The area with the site for the proposed fuel station and gas oil storage is far to the community settlement, approximately 100 meters to 1km or so, this makes the project suitable for the area since there are very few people at risk from the activities of the project.

Figure 14. Photographs of the Proposed Location (*Source: Hersege Consultant 2020*)

f. The Proponent's Endorsement of The SEIS

CDFG is fully responsible to endorse and implement all the requirements of this Simplified Environment Impact Statement (SEIS); including implementation of requisite legal frameworks. Monitoring of the fuel filling station activities will be carried out by the CDFG as the project's proponent and will be responsible for day-to-day management of the project's activities. "Endorsement Letter Attached".

g. The Structure of The SEIS

This document has been structured to describe the new, project-related facilities and their likely impacts - positive, neutral or negative - on the existing environment (including the community, the natural environment and local cultural heritage) in the context of prevailing government policies and law:

Section 1: Executive Summary - provides a summary of the key findings and conclusion of the SEIS in each phase such as; preconstruction phase, construction phase, and operation phases.

Section 2: Details of Proponent - provides an information of proponent including; information of project director, information of project manager and information of project coordinator.

Section 3: Details of Consultant - provides details information of consultant who prepare and written the SEIS and EMP report.

Section 4: Project Description - provides a description of the project including infrastructure, the various phases of development, their location and an outline of likely construction activities.

Section 5: Regulatory Framework - describes the relevant environmental policies, legislation and international conventions to regulate the project, and acknowledges that these policies represent the aspirations of the Go TL and what it aims to achieve for the people of Timor-Leste should the project proceed.

Section 6: Description of Environment - provides a preliminary assessment including a description of the prevailing climate, topography, geological, air quality, surface water, soil, socio-economic, and cultural heritage conditions within Metiaut development area as whole and the Fuel Station and Diesel Storage development area.

Section 7: Alternative – provides a baseline description of the alternative project location, size, design, technology and methods.

Section 8: Climate Change – describes an information of climate changes which occur during the each phases; preconstruction, construction and operation

Section 9: Impact Assessment – outlines the findings of the impact assessment and mitigation measures through identification of environment impacts, mitigation measures, monitoring measures and responsibility.

Section 10: Summary of EMP – provides summary impact, mitigation measures to minimize potential adverse impact to the environment

Section 11: Public Consultation and Information Disclosure - addresses the requirements for undertaking public consultation under the of Timor-Leste Decree Law No. 5/2011, and sets out the stakeholders and consultation activities that were undertaken for this stage of the project.

Section 12: Difficulties Encountered – provides information of difficulties encountered in collecting or assessing the information presented in the SEIS Chapter 13: Conclusions and Recommendations – provides the overarching conclusions, and recommendations for further action to be taken

Section 13: **Conclusion and Recommendation**- Provide the conclusion and recommendation of Simplified Environmental Impact Statement

Section 14: Non-Technical Summary – provides information in simple language so as to be understood by the average person.

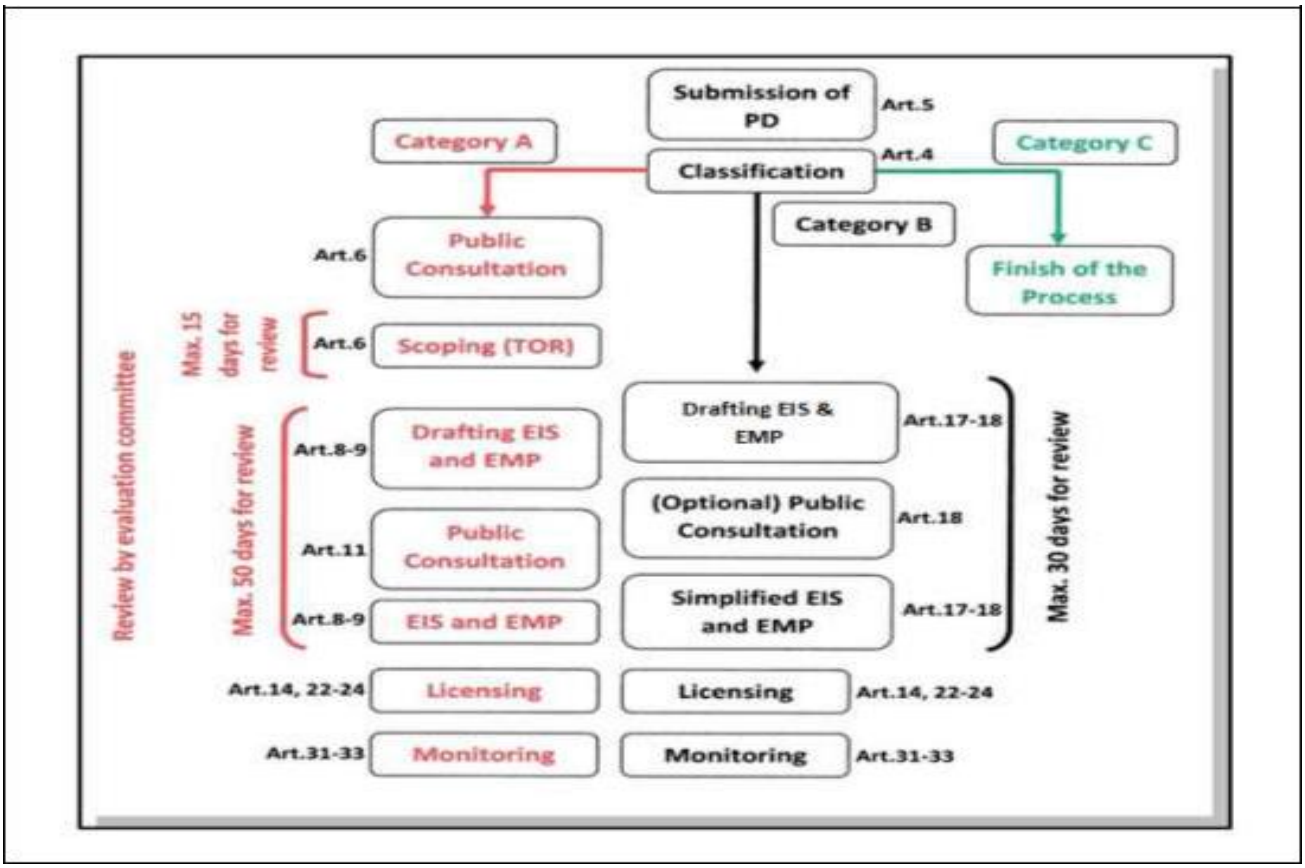


Figure 15. EIA Process Required for Category A, B and C Project

5. LEGAL FRAMEWORK

This environmental impacts assessment as a basis to prepare the report SEIS and EMP has been conducted by taking the reference from the legal framework of environmental safeguard policy, as well as the Timor Leste regulation of petroleum and mineral resources management. The following table, show the main regulation related to EIA and petroleum activity in Timor Leste.

Table 2. Regulation Related EIA

Agency	Relevant Laws
Ministry of Commerce and Environment	Decree Law No. 5/2011
	Decree Law No. 26/2012 on Environmental base law
	(Draft) Law on Biodiversity (March 2012)
	(Draft) Law on Protected Area (May 2013)
	UNTAET Law No. 19/2000 on Protected Area
Ministry of Agriculture and Fisheries (MAF)	Law No. 12/2004 on Crimes related fisheries
	Law No. 6/2006 on legal Basis for management and Regulation of Fisheries and Agriculture

National Petroleum and Mineral Authority	1. ANPM Regulation no.2/2014, of 24, October 2014, first Amendment of ANPM regulatory No. 1/2012 on the downstream petroleum activity. 2. Amended By ANPM Regulation No. 3/2014, 24 October 2014. Regulation No. 1/2020, Of 19 June 2020 Second Amendment To ANPM Regulation No. 1/2013, Of 18 September 2013 On Installation And Operation Of Fuel Filling Stations As Amended By ANPM Regulation No. 3/2014, 24 October 2014.
International	1. Convention on the Prevention of Marine pollution by Dumping of Wastes and other Matter (London Dumping Protocol) 2. Indonesian Petroleum Regulation

Other relevant regulation required in absence of local regulation are also applicable such WHO, IFC, USEPA, where some standard parameters of the environmental indicator was used. The following table shows the most applicable international standards parameter of the environmental indicators:

Table 3. Applicable International standards in Absence of Timor Leste's Standards

Environmental Standard	**TL National Standard**	**International Standard**
Drinking water Quality standards	Adopted WHO Standards	WHOs
Waste water effluent	None	WHO/USEPA
Ambient Air Quality Standards	None	IFC/WHO
Heavy Metal Standards	None	WHO
Noise	Leq55dB(A) per UNTAET Regulation	Word Bank
Vibration	None	USEPA
Soil	None	IFC/World Bank
Ambient receiving water Quality Standards	None	IFC/WHO
OHS	None	IFC/ISO-81001

- **Downstream Regulations**

  Regulation No. 1/2020, Of 19 June 2020 Second Amendment To ANPM Regulation No. 1/2013, Of 18 September 2013 On Installation And Operation Of Fuel Filling Stations As Amended By ANPM Regulation No. 3/2014, 24 October 2014.

  This regulation serves as a legal instrument necessary to efficiently manage the procedures for reviewing existing installations, installing new Fuel Filling Stations, renovating or making alterations to existing Fuel Filling Stations, as well as their operation.

- ***General Principles for Installation of Fuel Filling Station***

  Section I of this regulation covers the *location, project and licensing approvals*.

  (a) The approval of the location of a new or an existing Fuel Filling Station is done prior to the presentation and approval of a project for the construction of a Fuel Filling Station. It must be made through the completion and submission of the form included in annex I in this regulation, called "*Application for Approval of Location of a Fuel Filling Station*" to the ANPM.

  (b) After obtaining a Certificate of Approval of Location for Fuel Filling Station, operators of new or existing Fuel Filling Station shall present to the ANPM an "*Application for the Approval of a Project for a Fuel Filling Station*", in the form included in Annex II to this

  Regulation.

  (c) The License Application shall follow the rules set forth in ANPM Regulation No.1/2012, of 24 October 2012, and the License is issued in the form set out in Annex I to Decree Law No.1/2012, of 1 February 2012, on the Downstream Sector.

First Amendment to ANPM Regulation no.1/2014 on Fuel, Biofuel, and Lubricant Quality Standards and Specifications. This regulation sets the minimum quality standards for Fuel, Biofuel, Lubricants and similar products available in the domestic market and minimum standards of consumer protection.

6. DESCRIPTION OF THE ENVIRONMENT

a. Physical Components

i. Climate (including any implication of the climate change)

The climate is tropical in Camea. The summers here have a good deal of rainfall, while the winters have very little. The Köppen-Geiger climate classification is Aw. In Post Administrative Cristo Rei, the average annual temperature is 27.0 °C. In a year, the average rainfall is 1,307 mm. The project could affect the annual climate in the area, but did not experience major changes because the duration of the project to be implemented did not require much time.

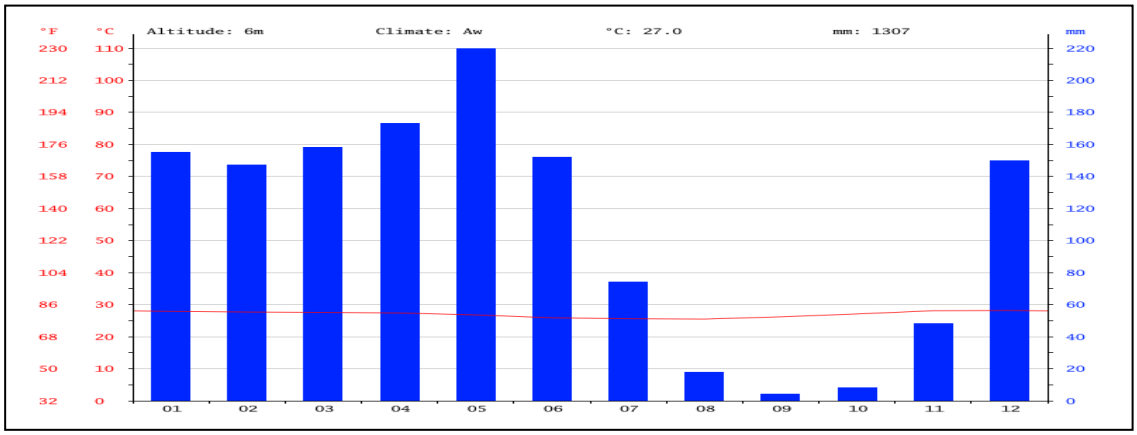


Figure 16. Climate Graph / Weather by Month Dili (*source: https://en.climate-data.org/asia/china/gansu/dili-855768/)*

The driest month is September. There is 4 mm of precipitation in September. Most of the precipitation here falls in May, averaging 220 mm. With an average of 28.2 °C, December is the warmest month. August is the coldest month, with temperatures averaging 25.5 °C. The precipitation varies 216 mm between the driest month and the wettest month. Throughout the year, temperatures vary by 2.7 °C.

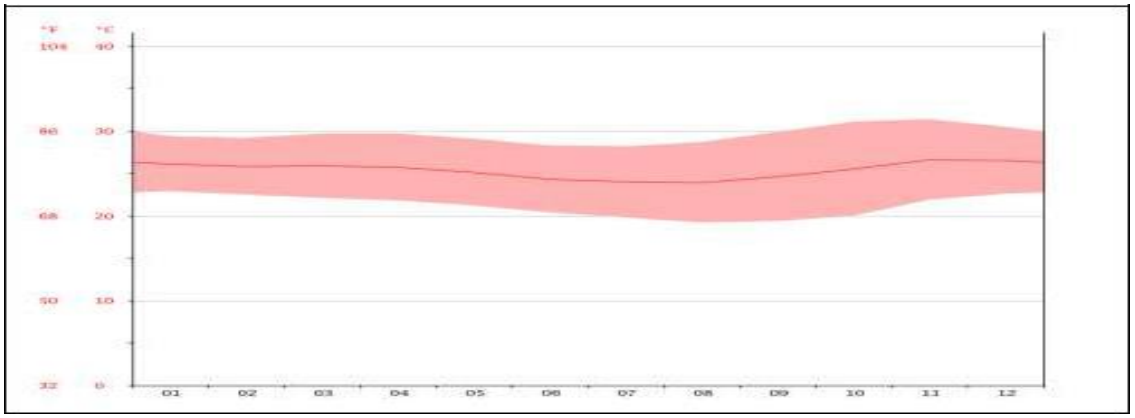


Figure 17. Average Temperature Dili (*source: https://en.climate-data.org/asia/china/gansu/dili-855768/)*

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	27.9	27.7	27.6	27.4	26.8	25.9	25.6	25.5	26.2	27.1	28.1	28.2
Min. Temperature (°C)	24.4	24.1	23.7	23.5	22.8	21.9	21.3	20.7	21	21.8	23.4	24.1
Max. Temperature (°C)	31.4	31.3	31.5	31.4	30.8	30	29.9	30.3	31.5	32.5	32.9	32.4
Avg. Temperature (°F)	82.2	81.9	81.7	81.3	80.2	78.6	78.1	77.9	79.2	80.8	82.6	82.8
Min. Temperature (°F)	75.9	75.4	74.7	74.3	73.0	71.4	70.3	69.3	69.8	71.2	74.1	75.4
Max. Temperature (°F)	88.5	88.3	88.7	88.5	87.4	86.0	85.8	86.5	88.7	90.5	91.2	90.3
Precipitation / Rainfall (mm)	155	147	158	173	220	152	74	18	4	8	48	150

Figure 18. Weather Average Dili (*source: https://en.climate-data.org/asia/china/gansu/dili-855768/)*

ii.Topography

Timor-Leste's topography is dominated by a massive central mountainous backbone that rises to 3,000 meters and is dissected by deep valleys. On the northern side the mountains extend almost to the coast, but on the southern part the mountains taper off some distance from the coast, which provides areas of coastal plain. Up to 44% of the area has a slope of 40%.

The topography within 2 km of Dili contains very significant variations in elevation, with a maximum elevation change of 1,391 feet and an average elevation above sea level of 1,024 feet. Within 10 miles contains very significant variations in elevation (2,570 feet). Within 50 miles contains large variations in elevation (7,689 feet).

The morphology of the observed area is in the flat plain area. The land used around the research site is an abandon land and the project will establish in 6 msl.

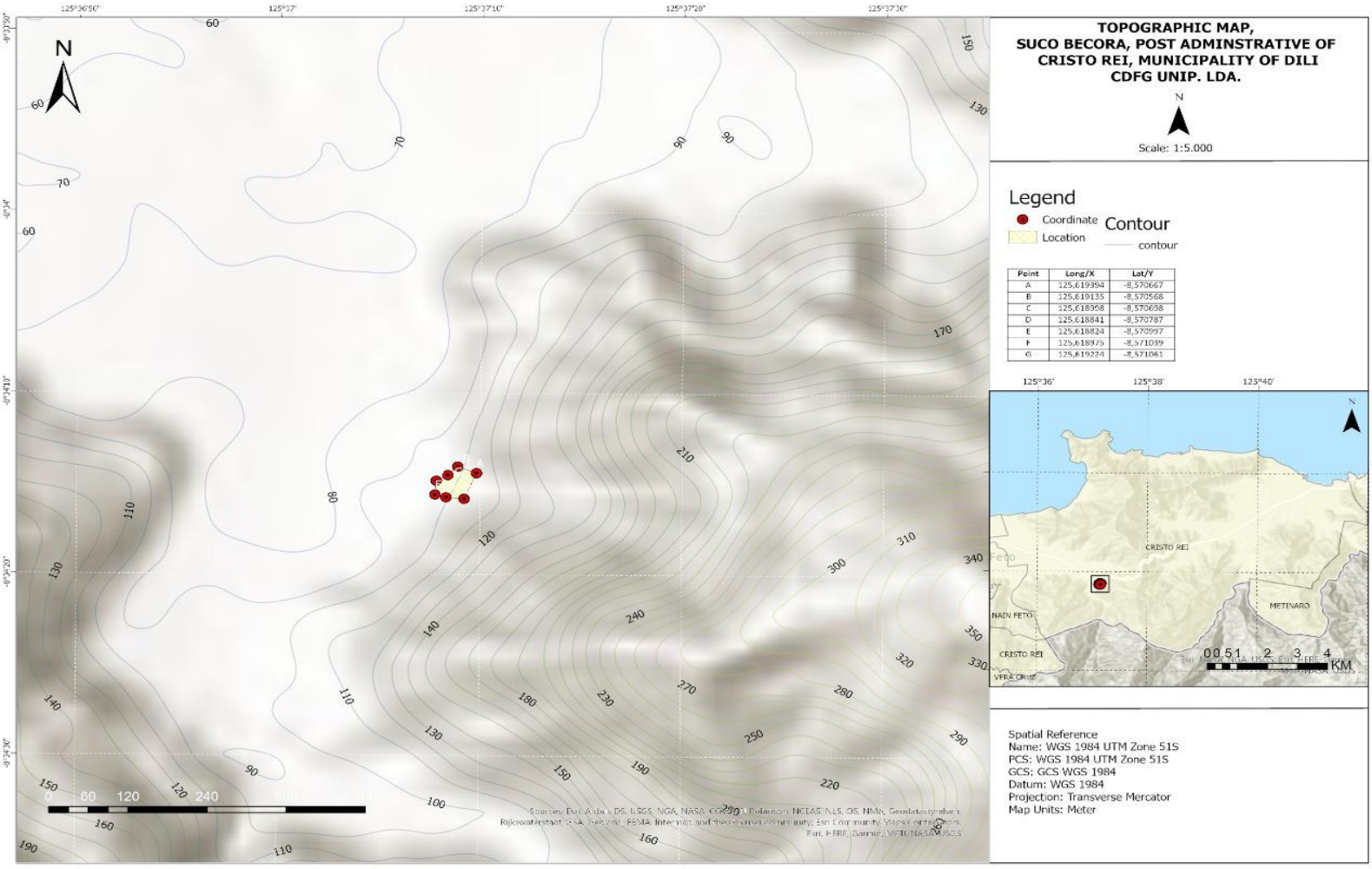


Figure 19. Topography Map (*source: Hersege Lda)*

iii. Geology

The tectonics of the island of Timor occurred due to the collision between the Australian micro plate and the afhanitic asia plate resulting in a fault, namely is thrust fault. This geomorphological results in very steep slopes that represent a balance between geological uplift and erosion and also in very high sediment loads in the river leading to broad and thick alluvial fans and floodplains along the river basin and across the coastal plain.

The project location is underlined by Alluvial which consists of loose sediment, clay to the size of a boulder, tens of meters thick. In fact in Timor-Leste, climate and, more importantly, soil relief and therefore excessive soil erosion and movement, will be one of the most important factors controlling soil development.

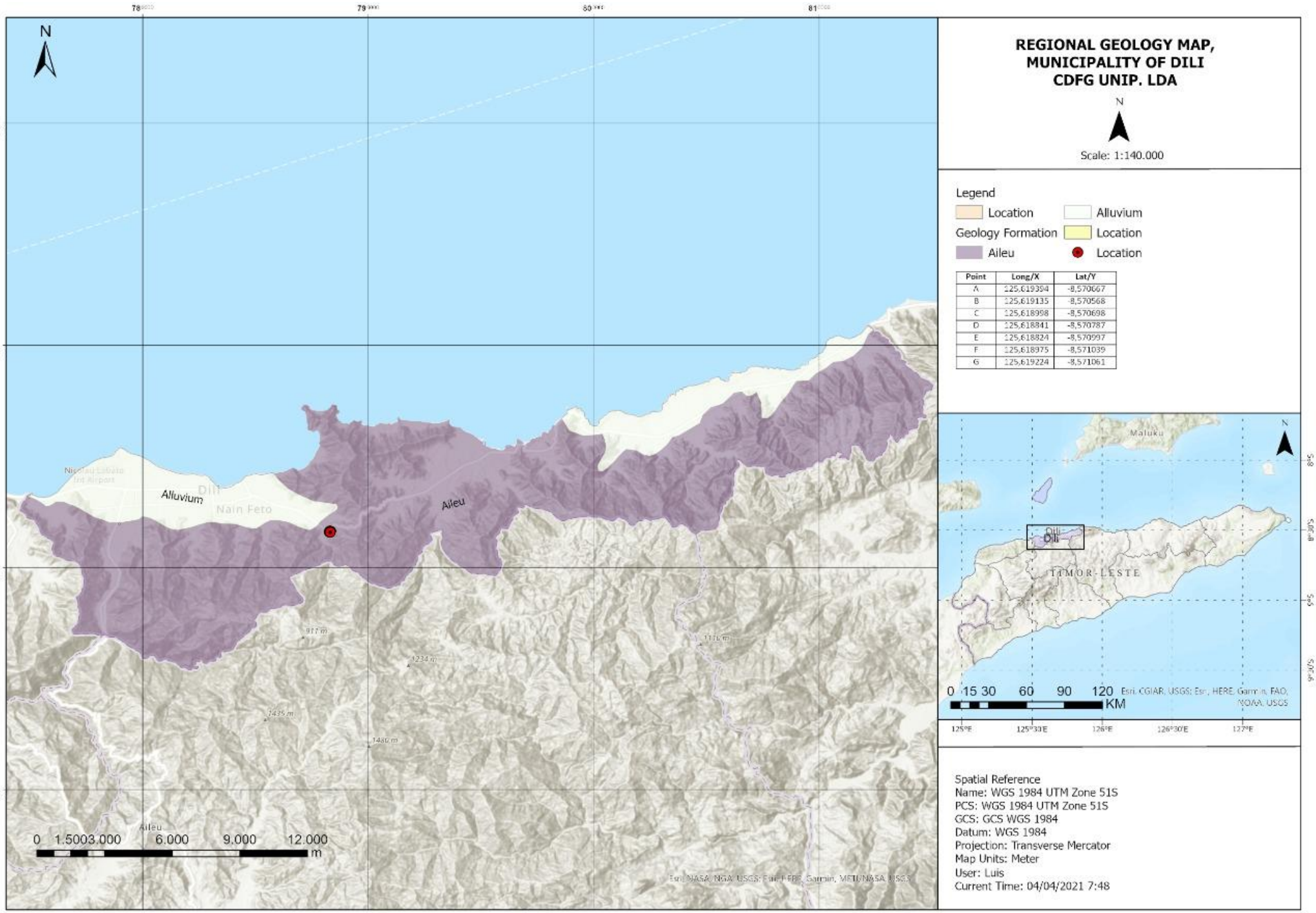


Figure 20. Geology Regional Map (*Source: Hersege Lda 2021*)

iv. Air Quality

Air quality potentially is impacted from volatile Organic Compound (VOC) associated with low hydrocarbon chain compound easily evaporated in to the air. Gasoline contains benzene that is easily evaporated into the atmosphere during handling of product. Large amount of VOC transferred into the atmosphere will cause pollution and can be harmful to those expose to it. Given the capacity and the closed handling system, the nature of this impact is localized and can be significantly mitigated.

Potential for air pollution from the use of product (vehicle emission) can come in the form of release of NOx SOx Cox and particulate Matter (PM) from the combustion. Pollution from vehicle emission depends on several factors including:

- Specification of fuel for example, in the case of gasoline, use of lower RON could lead to higher emission of NOx and Cox.
- Engine maintenance
- Traffic congestion

Air pollution from use of product has great potential to spread nationally even trans boundary to the neighboring nations. Most appropriate mitigation measures for this type of pollution, however, depend on local policy and regulatory framework in relation to the quality of the petroleum products allowed to be imported in, engine maintenance as well as traffic planning and management. Potential mitigation measures that can be implemented by CDFG Unipessoal Lda.

Based on the measurement in the field that conducted by company with the support of consultant. By using Airradio to measure the air quality in the project location, there are two points that had been chosen as measurement points: the first point is inside the project area and the second point is the access road that connected Dili to Hera. The results of measurement are shown in the PM 2.5 is 6 ug/m3 in the project location, and 8 ug/m3 in second point both results describe below the threshold recommended by International Ambient Air Quality Standard WHO 2001, 25 ug/m3–24 hours mean And PM 10 in the both is almost similar 11.1 ug/m3 and 12.1 ug/m3 respectively both results describe below the threshold recommended by International Ambient Air Quality Standard WHO 2001, 50 ug/m3 – 24 hours mean. CO2 in the both points are 680 and 788 ppm. The temperature in the both points is 32^{oC} and 34^{oC}, the humidity in the both points is 98 and 99 %RH, the wind speed is 0.7 – 3.5 m/s and the win direction is from North to

South. According to the data at the project site shows that CO, SOx and NOx are zero it means no exist in project location.

v. Surface Waters

In the project area there is surface water in the form of a main river, which is often called Mota Ulun Becora, a river channel from the upstream of the mountains of the Mota Ulun area. for the needs of the river, sometimes it is used by local people to wash clothes and cars for drivers of public transportation such as trucks, microlets, taxis and private vehicles.

From observations in the field at a radius of approximately 1 kilometer there are no private drilled springs owned by the surrounding community, because the Camea area is located in an area high above sea level and it is very difficult to source groundwater, and in this observation the Hersege Consultant Team found installation of clean water pipes from clean water government institutions, namely from (DNSAS) for the needs of the surrounding community.

Community Water Pipe (DNSAS Water Supply)

Camea River

Figure 21. Surface Water

vi. Groundwater

Dili has a tropical monsoon climate with annual precipitation of aproximately 1,200 mm that mostly occurs during the annual wet season from November to April. Prolonged dry seasons attributed to climate change may cause additional pressure on groundwater stress.

Close to the Project area there is no groundwater, as a from government institutions or drilled wells from the surrounding community, from field observations no groundwater is found within a 1 kilometer radius of the project area. Until now, the surrounding community still uses the provision of clean water from government institutions (DNSAS) for their daily needs.

Meanwhile, for the purposes of the Fuel Station construction project, the CDFG company plans to provide its own water from the supply of tanker trucks from the company during the project. for domestic purposes, CDFG is also committed that it will use clean water which will be installed by the government in the future

Based on the observation in the field, there is water pipe that installed by government for community in Camea. The existing of the proposed project will not affect the groundwater.

Figure 22. Water Pipe (DNSAS Clean Water)

vii. Coastal Water

Importance of Coastal Waters. As the interface between terrestrial environments and open oceans, coastal waters encompass many unique habitats and serve important human

needs. Coastal habitats include estuaries, coastal wetlands, sea grass meadows, coral reefs, mangrove forests, kelp forests, and upwelling areas.

The *condition* of coastal waters reflects a group of interrelated physical, chemical, biological, and ecological characteristics. Coastal water condition can be affected by a variety of stressors.

- **Nutrients and pathogens** can come from storm water, agricultural runoff, and sewage discharge or overflows. Excess nutrients can cause algal blooms that result in low dissolved oxygen levels, which harm aquatic life. Pathogens (e.g., bacteria and viruses) can affect the health of people who use waters for recreation or eat contaminated fish or shellfish.
- **Chemical contaminants** can come from sources such as agricultural runoff, industrial activities, and atmospheric deposition of airborne pollutants. Of particular concern to human health are toxic chemicals in consumable fish and shellfish.
- **Changes in temperature and salinity** can be influenced by weather patterns or the condition of freshwater inputs. These changes can affect habitat quality and the status of native plant and animal populations, and can also influence algal blooms.
- **Non-indigenous species** can affect the status of native communities. In particular, invasive species can kill or crowd out native populations or otherwise alter coastal watersheds.
- **Overharvesting** can affect populations of fish, shellfish, marine mammals, and other species.
- **Changes in the extent of coastal waters** can also affect their condition. For example, beach erosion and wetland loss can affect contaminant and sediment levels. Wetland loss can also affect the condition of the wetlands that remain.

The eastern coasts are mainly characterized by the steep mountains falling directly into the Road side, making for rocky and steep coast along most of the shoreline. Municipality Dili offers a wide coastline with attractive beaches, ideal for swimming and other water sports, and fishing. The proposed location will not affect the coast area in Bidau Santana.

viii. Marine Waters

Marine water quality refers to the presence or absence of any number of pollutants in ocean waters. Some of the more important pollutants include oil, sedimentation, sewage, nutrients, heavy metals, and thermal pollution. However, due to the use of standardized equipment and method, leakage can be kept into the minimum and when there is a leak, it is being diverted into the oil catcher to separate water and oil.

Figure 23. Marine Water

ix. Soil

Soil is also an important receiving environment that can be affected by the project, if there shall be transport of contaminant to the soil and that percolate further to eventually reach groundwater aquifer. Pollutant transfer depends on the type of soil and distance between the surface and the aquifer. Potential for leaks into the soil is especially high during the unloading and distribution of petroleum product during tank maintenance cleaning usually happen every five (5) years. Maintenance cleaning requires the removal of sludge usually formed at the bottom of diesel fuel tanks. Temporary pilling of the sludge at the facility also has the potential to leach contaminant into soil

Soils are the thin layer covering the entire earth's surface, except for open water surfaces and rock outcrops. The properties of soil are determined by environmental factors including climate, parent materials, relief, organisms and age factor. There are significant number of different soils, a result of the different kinds and degrees of soil forming factors and their combinations. The geotechnical assessment shows that the alignment traverses several soil types; scaly clay, river terrace deposits and alluvial sediments, through very condensed gravel and sand sequences. The fluvial fan is mainly composed of coarse (gravel and sand) granular deposits.

The type of soil in the proposed project is *Tropofluvents* are a soil order in USDA soil taxonomy. They form quickly through alteration of parent material. They are more developed than Entisols. They have no accumulation of clays, iron oxide, aluminum oxide or organic matter. They have an ochric or umbric horizon and a cambric subsurface horizon. Further test for the soil will be conducted when the construction is begun and the result of the test will be submitted after obtaining the result from the laboratory.

On and across steep slopes soil profiles are chaotic and rock strewn without obvious profile development as in the soil section below, above Camea Dili (nearby proposed project). In reality, such soils are better called 'Regolith', defined in the 'Dictionary of Geological Terms' as: 'The layer or mantle of loose, incoherent rock material, of whatever origin, that nearly everywhere forms the surface of the land and rests on the hard or 'bed' rocks. It comprises rock waste of all sorts, volcanic ash, glacial drift, alluvium, windblown deposits, vegetal accumulations and soils.


Figure 24. Soil and Rock nearby Project Location

Soil permeability is the property of the soil to transmit water and air and is one of the most important qualities to consider for proposed project of Fuel filling station. Many

factors affect soil permeability. Sometimes they are extremely localized, such as cracks and holes, and it is difficult to calculate representative values of permeability from actual measurements. A good study of soil profiles provides an essential check on such measurements. Observations on soil texture, structure, consistency, color/mottling layering, visible pores and depth to impermeable layers such as bedrock and clay pan form the basis for deciding if permeability measurements are likely to be representative.

According to the data of soil permeability in project location shows that more than 25 cm/hour and according to the soil permeability class included in class very rapid it means if there is any oil spill, the ground water will be quickly polluted.

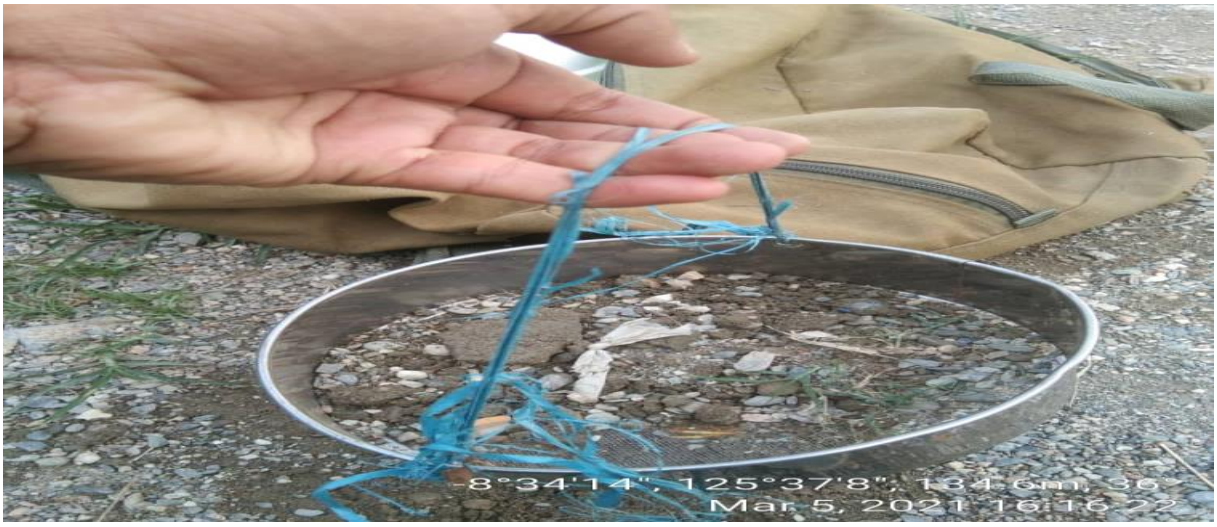


Figure 25. Soil Permeability Test

Soil permeability classes for agriculture and conservation

Soil permeability classes	Permeability rates[1]	
	cm/hour	cm/day
Very slow	Less than 0.13	Less than 3
Slow	0.13 - 0.3	3 - 12
Moderately slow	0.5 - 2.0	12 - 48
Moderate	2.0 - 6.3	48 - 151
Moderately rapid	6.3 - 12.7	151 - 305
Rapid	12.7 - 25	305 - 600
Very rapid	More than 25	More than 600

Sources : USDA

The proponent hasn't done a test for TPH (Total Petroleum Hydrocarbon) because of the Covid-19 situation and conditions, we will provide after normal situation.

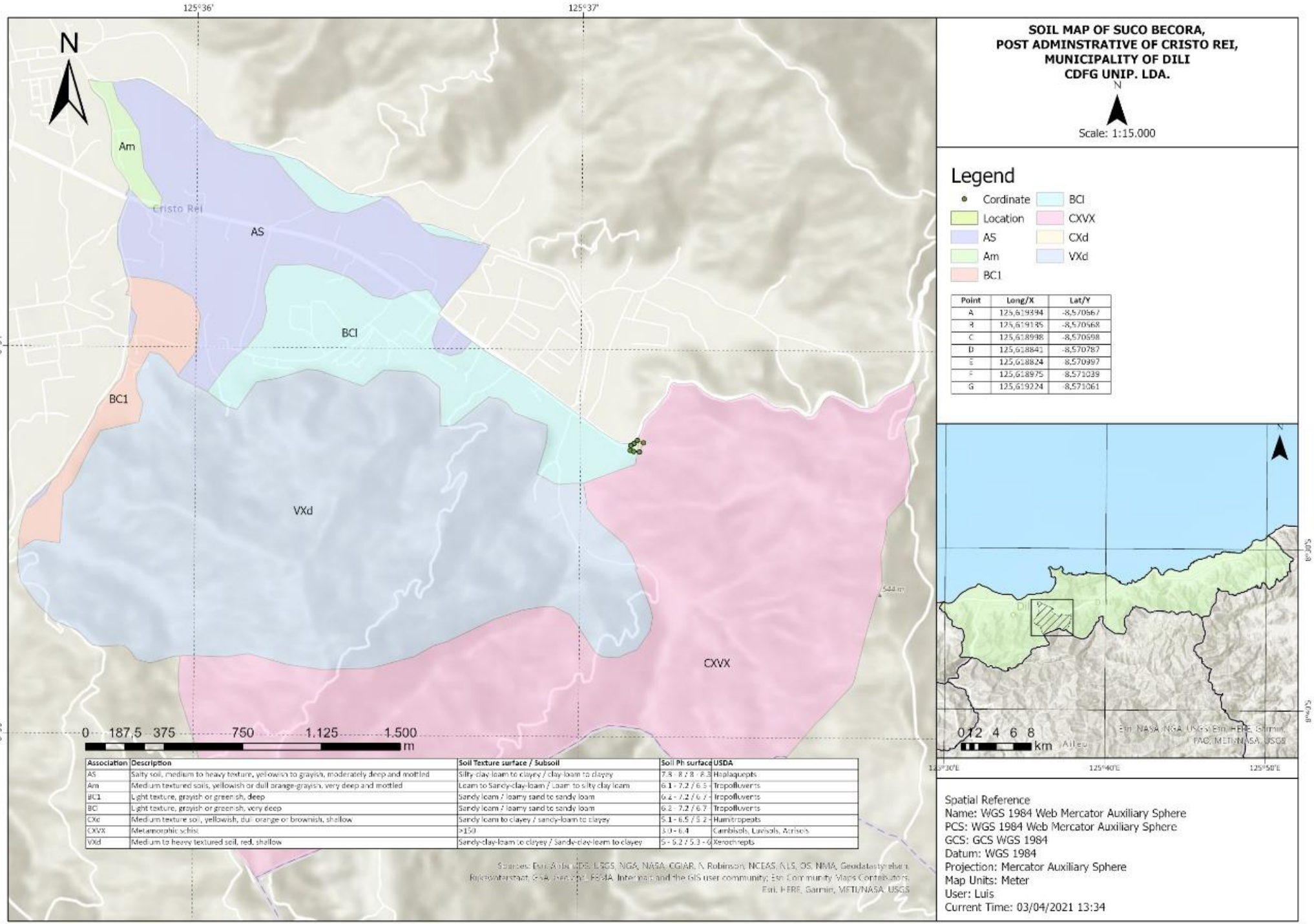


Figure 26. Soil Map (*Source : Hersege Lda 2021*)

x. Noise Level

Sound level meters are commonly used in noise pollution studies for the quantification of different kinds of noise, especially for industrial, environmental, mining and aircraft noise.

The current international standard that specifies sound level meter functionality and performances is the IEC 61672-1:2013. The first noise measurement point is inside the project area. Noise source is from the operated motor vehicle that passes through the main road and to the fuel filling area. Total of the 120 data collected from the noise level meter within the 10 minutes time frame. By using formula based on the "*Lampiran II Keputusan Menteri Negara Lingkungan Hidup No. : KEP-4/MENLH/11/1996 Tentang Baku Tingkat Kebisingan Tanggal 25 Nopember 1996*, the result of measurement is **42.48 dBA**. This number does not exceed the IFC Noise Level Guidelines for industrial activity (70 dbA) see Table 11.

Table 4. IFC Noise Level Guidelines

	One Hour L_{Aeq} (dBA)	
Receptor	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00
Residential; institutional; educational[55]	55	45
Industrial; commercial	70	70

In addition the temperature at the project location when conducted the measurement is 34^{o}C, the humidity is 99% RH, with the wind speed is 0.8 to 3.9 m/s and the wind blows from North to South.

b. Ecological Components

i. Wetlands

A wetland is a distinct ecosystem that is inundated by water, either permanently or seasonally, where oxygen-free processes prevail. The primary factor that distinguishes wetlands from other land forms or water bodies is the characteristic vegetation of aquatic plants, adapted to the unique hydric soil. There is no wetland that can be found surrounding the project area.

ii. Mangroves

Mangroves are salt-tolerant trees, also called halophytes, and are adapted to life in harsh coastal conditions. They contain a complex salt filtration system and complex root system to cope with salt water immersion and wave action. They are adapted to the low oxygen conditions of waterlogged mud. A coral reef is an underwater ecosystem characterized by reef-building corals. Reefs are formed of colonies of coral polyps held together by calcium carbonate. Most coral reefs are built from stony corals, whose polyps cluster in groups. There is no mangrove that close to the proposed project location.

Figure 27. Metiaut/Fatucama Mangroves (*Source; Hersege Lda*)

iii. Corals

Based on the survey that conducted by NOAA-CREP, the Average percent cover (standard error) of the reef benthos and benthic substrate ratio (hard and soft coral and CCA/turf and microalgae) are shown in table below:

Table 5. Average Percent Cover of Coral

District	Sites (#)	Hard coral % (SE)	Soft coral % (SE)	CCA % (SE)	Macroalgae % (SE)	Turf algae % (SE)	Sand % (SE)	Benthic Substrate Ratio
Oecusse	16	17.2 (3.0)	13.7 (3.9)	0.7 (0.3)	1.8 (0.5)	47.9 (4.6)	12.2 (2.5)	0.9
Bobonaro	16	14.0 (2.5)	17.8 (3.8)	2.4 (0.7)	1.5 (0.7)	54.5 (4.3)	4.7 (1.8)	0.8
Liquica	26	10.7 (1.6)	22.9 (3.6)	1.8 (0.7)	2.4 (0.6)	46.7 (4.7)	9.0 (1.6)	1.4
Atauro	22	20.5 (2.0)	10.7 (1.9)	7.7 (1.4)	5.2 (0.9)	39.8 (4.0)	4.4 (1.7)	1.2
Dili	14	13.2 (1.3)	24.0 (3.5)	4.6 (0.8)	2.1 (0.6)	35.4 (4.8)	13.6 (2.7)	1.5
Manatuto	13	17.0 (3.6)	8.9 (2.1)	2.9 (1.0)	2.2 (1.0)	51.8 (4.6)	8.7 (3.6)	0.7
Baucau	13	10.4 (1.8)	13.8 (4.4)	2.8 (0.7)	1.9 (0.6)	51.3 (5.0)	10.3 (3.9)	0.7
Lautem	19	20.3 (2.1)	6.0 (1.3)	7.2 (1.4)	9.2 (3.4)	43.7 (4.3)	7.1 (2.1)	0.8

iv. Fisheries

Timor-Leste is surrounded world-renowned marine resources. Fishing licenses are available to off-shore foreign operators to fish for export in the exclusive economic zone. Private sector investment has introduced prawn, grouper, and sea-cucumber farming for export markets. Many individual, small-scale operators catch a range of fish including tilapia, milkfish, groper, shrimp, seaweed and crabs. The fisheries are in Bidau Santana is located approximately 5 km to the northern part from the proposed project.

Figure 28. Fisheries Area

v. Protected Areas and National Parks

In the project area, there is *Cruz Jovem* which is located in the middle of the CDFG Fuel Station project area, *Cruz Jovem* is the Sacred Symbol of all Catholics in Timor Leste, the purpose of establishing *Cruz Jovem* is believed to be able to bring love of peace, cure diseases, repentance for the mistakes of fellow human beings as well as for mass ceremonies and cultural events.

The Bedois Grave that near to the proposed location is public grave approximately 800 m to northtern part, and the Bekusi Grave approximately 1,8 km of the proposed location on, that grave considerate sacred for East Timorese, they celebrates the souls day "Finado" every 2nd of November.

According to decree law 5/2011, that of all project activities to be carried out, basically they must obey and respect all aspects related to holy places that exist in a project area prior to the project activity. There is protected area that close to the proposed project location. The protected area is the place where the Cruz Jovem is now located in the project area, more details can be seen in the explanation and picture number 7 below.

The CDFG company itself has coordinated with chefe aldeia Santo Francisco to move the Cruz Jovem from the project area, before moving the cruz jovem, CDFG and the Local Authority there have agreed and are committed to completing various sacred and traditional cultural events so that it is easy to move the sacred object from the area. the project to the new location has been assigned by the Local Authority of Santo Francisco.

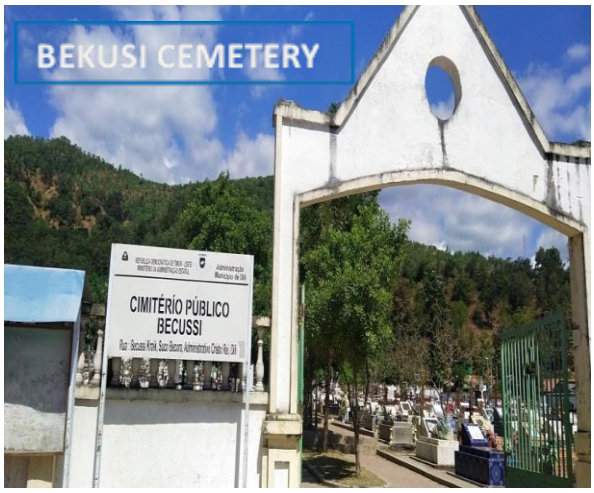


Figure 29. Protected Area (Graves & *Cruz Jovem*), *Source; Hersege Consultant 2021*

vi. Flora and Fauna

Based on the observation in the field the flora within the project area such as: *Metroxylon* (*sagu*), *Eucalyptus* (*Aibubur*), *Ai Amare Fuik*, *Ai bein Mutin*, and *Cocos nucifera*, Hudi (*Banana Tree) has, Ai Kaixote, Ai Ru no Duut fuik*.

The existing plants in the project area mentioned above, the impact of the project greatly affects the life of the existing plants. The CDFG company also has a detailed plan to create or preserve plants that can help the environment for living things and humans in maintaining the beauty of nature.

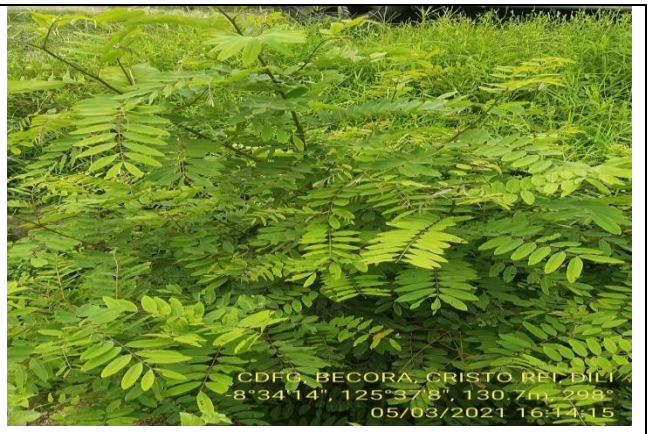


Figure 30. Flora within the Proposed Location

Meanwhile the impact of the project on wild animals that existed before the project took place, among others; Manu lin, manu lakateu and manu pikapau, are types of wild animals that can be tame and can survive with the environment around humans, if their lives are not disturbed by development and hunting activities by humans, and the existing domesticated animals that are kept by humans are Dogs, Local Chickens, and Pigs. Based on the observation in the field the Fauna within the project area such as: Sus (Fahi), Gallus gallus domesticus (Manu), Manu lin, manu lakateu, manu pikapau, and dog.

Based on the observation in the field the Fauna within the project area such as: *Artiodactyla* (*Bibi*), *Bubalus bubalis (Karau)*, *Gallus gallus domesticus (Manu)*, and dog.

Figure 31. Fauna within the Proposed Location

vii. Forest

Timor Leste's lush rain forests and hardwoods have long been a major resource for its communities. Mirroring similar trends across the world, however, the island's forest cover has decreased by an estimated 50-70%, - or by almost 30 percent between 1972 and 1999 alone. This leaves around 41 percent of Timor-Leste's land forested, with the occasional small pocket of primary forest still intact.

And yet, depletion of the country's forests is continuing. Precious hardwoods such as sandalwood or teak have been almost completely eliminated, while agricultural expansion is adding undue pressure on the remaining forest cover. Slash-and-burn farming, a practice where farmers prepare the field by burning incumbent vegetation, frequently results also in forest fires and forest degradation. Cleared land along the slopes, on the other hand, has exposed upland farming communities to landslides and soil erosion, further fueling the need to clear more land for farming.

viii. Coastal Resources

The coastal zone is essential to marine life and supports a large part of the world's living marine resources, certainly more than the open sea. Its wetlands, lagoons, sea grass beds, coral reefs and shallow bays are nursery or feeding areas for most coastal and many oceanic species.

c. Economic Components, Including

i. Employment Sector

According to the census results, there were 383,331 employed persons in 2015, against 341,694 in 2010, representing an average annual growth rate of roughly 4.8 percent. This result shows that employment grew faster than the working age population during the five-year period from 2010 to 2015. The apparent growth of employment has, however, been achieved through the growth of self-employment and particularly own-account employment. The share of own-account workers in total employment increased from 50.2 percent in 2010 to 57.3 percent in 2015, while the share of employees in total employment has remained essentially unchanged at about 31.1 percent in 2010 and 30.6 percent in 2015.

In terms of branch of economic activity, the data show that there has been a net relative decline of agriculture employment in favor of services during the period. The share of agriculture employment in total employment decreased from 68.8 percent in 2010 to 59.3 percent in 2015.

Correspondingly, the share of employment in services increased from 26.1 percent in 2010 to 35.9 percent in 2015. Industrial employment remained almost unchanged at 4.9 percent in 2010 and 4.1 percent in 2015. The occupational composition of employment has slightly changed in favor of more skill-demanding occupations, although it remains heavily dominated by agriculture and services. The data show a net increase of the share of managers from 2 percent in 2010 to 4 percent in 2015, and a significant increase in the share of professionals from 2 percent in 2010 to 6 percent in 2015. Correspondingly, the data show a decrease in the share of agriculture workers in total employment from 65 percent in 2010 to 60 percent in 2015 but a relative increase in the share of services and sales workers from 12 percent in 2010 to 15 percent in 2015.

The educational attainment of the employed population in the core age group, 15 to 64 years old, has generally increased during the five-year period. The share of employed persons with secondary education increased from 18.8 percent in 2010 to 20.3 percent in 2015. Similarly, the share of employed persons with university education increased from 5.6 percent in 2010 to 9.0 percent in 2015. The share of employed persons with primary education remained essentially constant at 19.9 percent in 2010 and 20.2 percent in 2015.

The data below also show that the share of employment in agriculture is Lower Dili as compared with the others industries in Dili. The presence of this project will create the job opportunity to the community that lives surrounding the project.

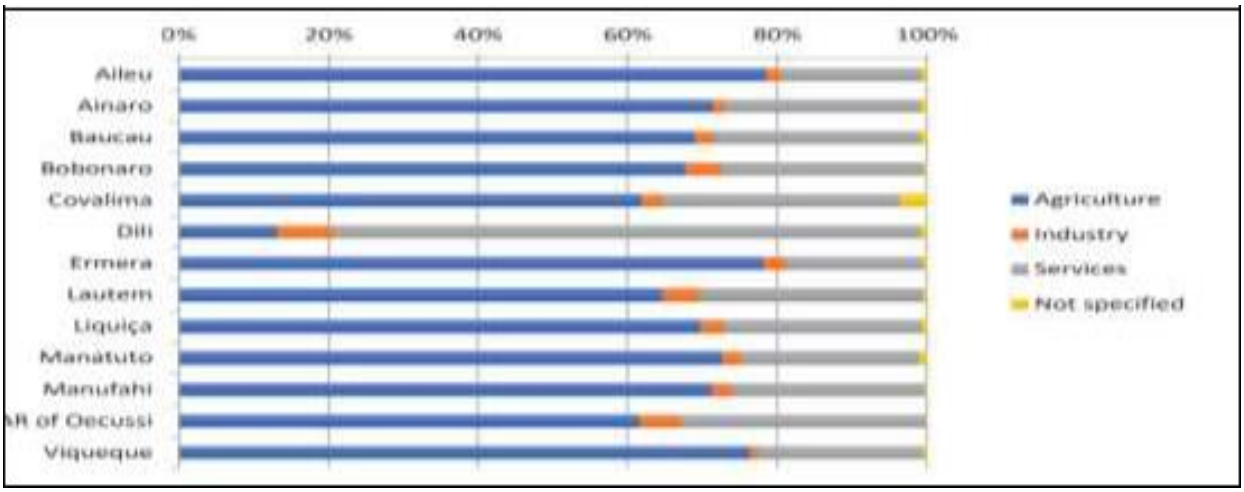
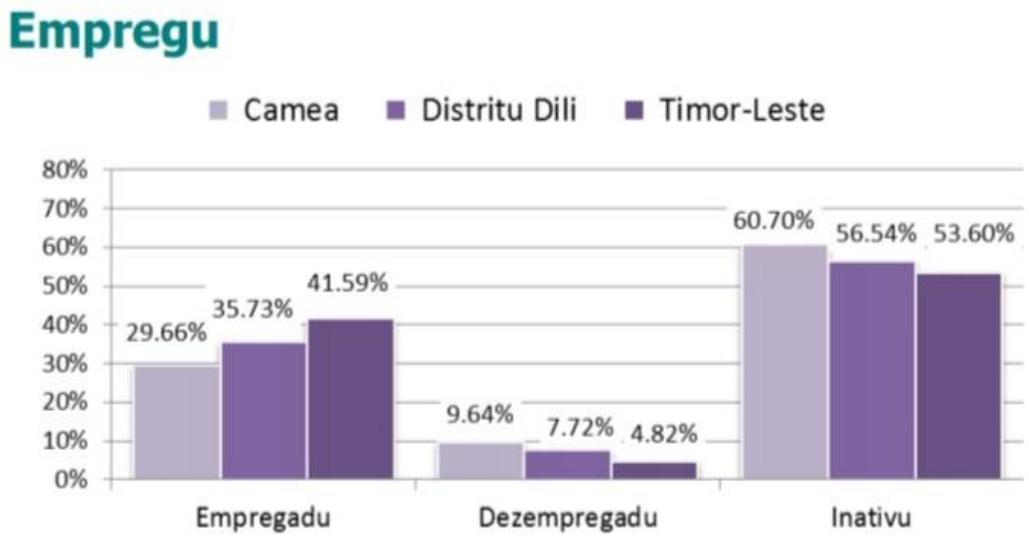


Figure 32. Composition of Employment (Source: https://timor-leste.unfpa.org/sites/default/files/pub-pdf/2015%20Census%20Labour%20Force%20Report.pdf

Following figure shows that Suku Camea has employed 41.59 %, unemployed 9.64% and inactive employed 60.70% (source, Census fo fila 2010);



ii. Infrastructure Facilities

Public investments in infrastructure sectors have an important role and one of the vital drivers of the economic growth and sustainability for a long term period. The development strategy of the VIII Constitutional Government identifies the infrastructure as one of the key elements of agricultural productivity, poverty reduction, rural development and public accessibility to the markets and services.

The Infrastructure Fund (IF) was established by the Government of Timor-Leste in 2011 as a vital financial instrument for the infrastructure development to support the country in achieving its national goals, as it is underlined in the Strategic Development Plan 2011 – 2030 to increase employment and to ensure sustainable economic growth, social transformation and to improve a quality of life, to achieve strategic objectives and to become a prosperous and strong nation.

Based on the survey in the field the type of infrastructure shows following pictures.

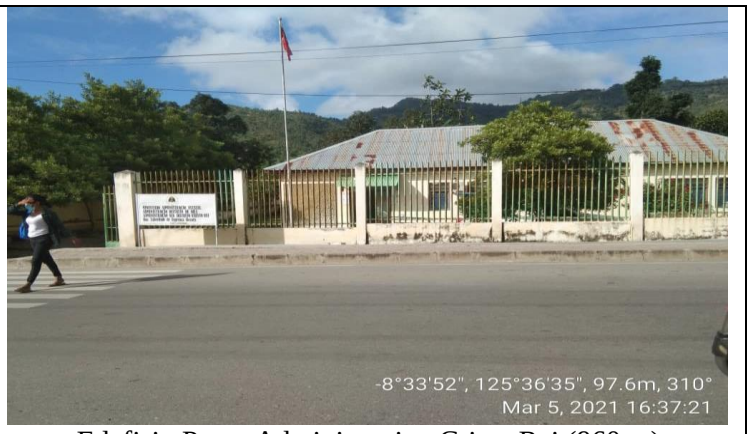
Access Road (4.5 m)

Sede Suco Camea (Access Road 950 m)

Becora Health Clinic (600 m)

Terminal Becora (100 m)

Prizaun Becora (200 m)



Edefisiu Posto Administrativu Cristo Rei (960 m)

Estalasaun Ambulansia (800 m)

Becora Police Office (1 km)

Iniversidade Unital (1,1 km)

Igreja Becora (1,5 km)

Escola STM Becora (1,7 km)

Electric Pole (350 m)

Figure 33. Infrastructure Facilities

iii. Land Use

Dili is the capital city of Timor-Leste and comprises six administrative posts, 31 sucos and 241 aldeias. The Dili Municipality accommodates a population of 234,026 (2010 Census) with annual population growth rate at 4.1% which is far above the national average growth rate (2.45%). The urban population is expected to share 30% of the national population in 2020.

According to the Land Use Survey for DMA by the JICA Project Team (hereinafter JPT) in August 2014, its result reveals that natural area including forest and natural bush covers around 74.5% of the total DMA and other predominant land use is residential and mixed residential use with other uses sharing 12.5% of total DMA land.

Based on the spatial character of DMA by the urban block, the land use of Urban Center block is occupied mainly by residential areas and government land followed by commercial & business use. The majority of land use is mountain or other natural area in the urban blocks of Center Fringe, Suburban, Hera, and Tibar as large sucos with large natural lands shared by 50%.

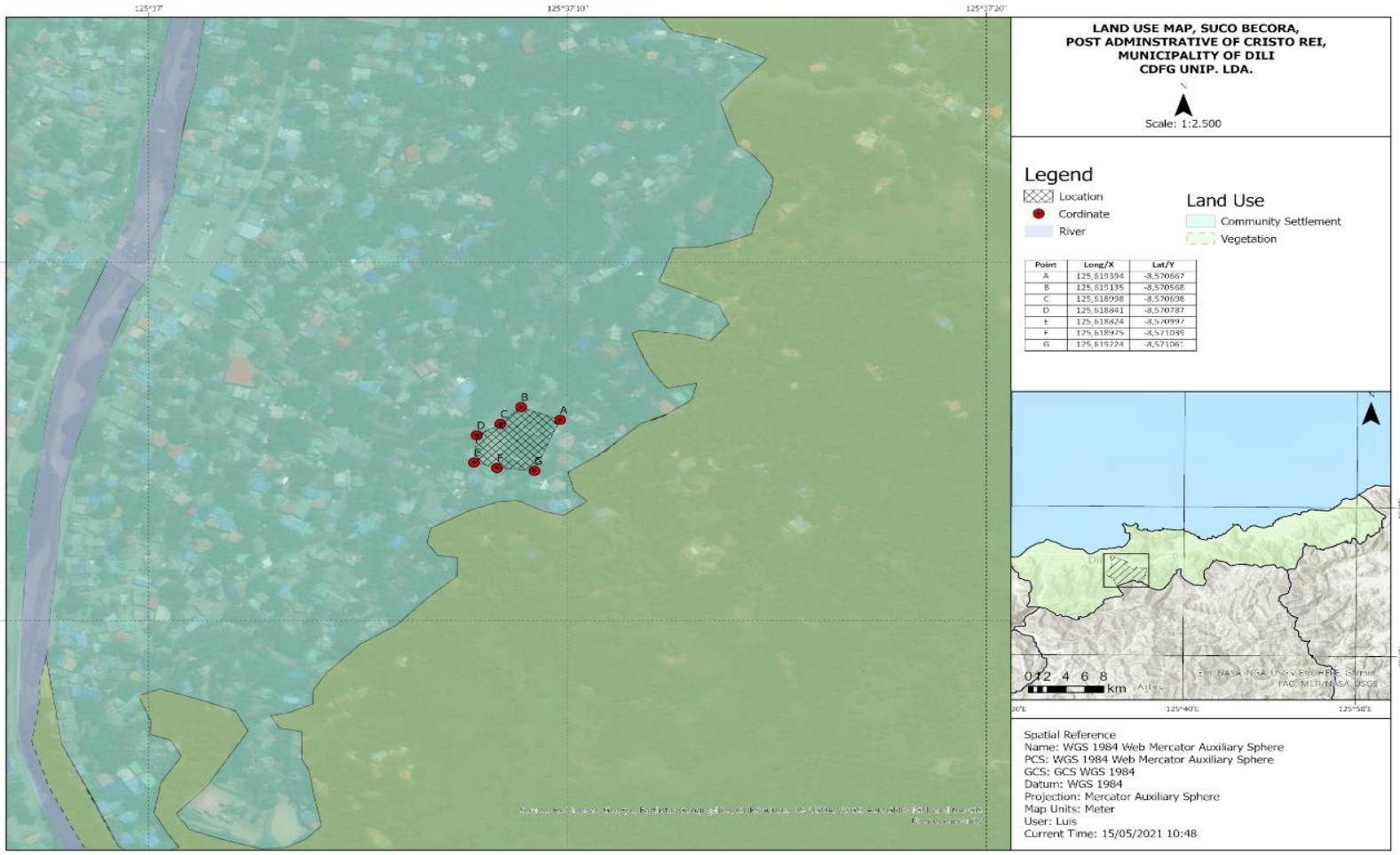


Figure 34. Land Use Map

iv. Use of Forest and Natural Resources

Besides agriculture, Timor Leste's growing population also depends on non-wood forest products, such as bamboo, rattan and grasses for housing; honey for food and medicine; palm wine; and medicinal plants. Over the last decades, the loss of forest cover has increasingly resulted in extensive soil erosion and landslides, leaving farming communities highly vulnerable and food insecure. The GEF Small Grants Programme in Timor Leste, which received a grant budget of USD 1.1 million for the current operational cycle, aims at helping communities preserve the environment and its ecosystem services upon which they rely for their livelihoods (https://www.thegef.org/news/conserving-timor-leste%E2%80%99s-rich-forest-land).

Proposed project will use natural resources such as sand, stone, backfill, water and local wood.

v. Fishing

Timor-Leste is surrounded world-renowned marine resources. Fishing licenses are available to off-shore foreign operators to fish for export in the exclusive economic zone. Private sector investment has introduced prawn, grouper, and sea-cucumber farming for export markets. Many individual, small-scale operators catch a range of fish including tilapia, milkfish, groper, shrimp, seaweed and crabs. The fisheries are in Bidau Santana is located approximately 5 km to the northern part from the proposed project.

Figure 35. Fishing Area

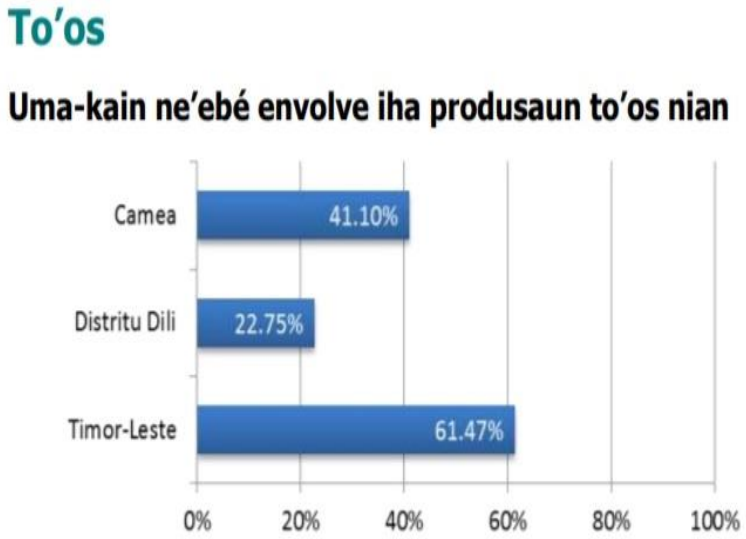
vi. Agriculture

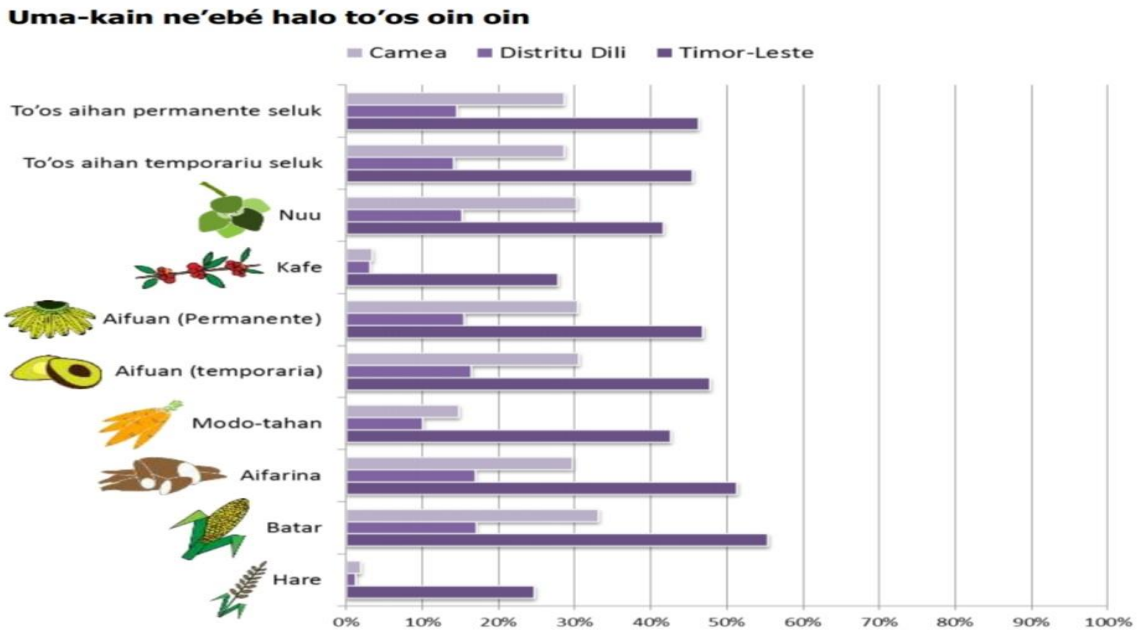
Agriculture is the main activity in Timor-Leste, providing subsistence to an estimated 80 percent of the population. It also generates an average of 90 percent of the country's exports, mainly due to coffee. Most farmers practice subsistence farming, planting and harvesting what they need for a simple life-style, collecting wild foods and traditional medicines, and the animals are very much left free to grow and reproduce. There are almost no large-scale farms except for missions. Most Timor-Leste farmers have limited access to the technologies and practices needed for sustainable and efficient agricultural production. Subsistence and commercial producers face significant constraints, including limited access to quality inputs, low yields, and limited access to markets.

Agriculture continues to be the second largest single sector in the Timor-Leste economy, after the mining and quarrying sector. In recent years its contribution to the country's Gross Domestic Product (GDP) has ranged between 6.4 percent in 2011 to 10.9 percent in 2014 and was 9.1 percent in 2015 (Timor Leste Agricultural Census 2019).

According to the Census fo fila 2010 percentage of agriculture in suku Camea in picture bellow.

Liu metade uma-kain iha Timor-Leste kuda batar no um quarto kuda hare.





vii. Tourism

Dili municipality life's in the northtern part of Timor-Leste and includes its Capital or first largest city in Timor Leste. Set on a breezy plateau overlooking the sea, Dili has a oldest town centre with bustling sprawling market and an older center with a much more sedate air.

The attractive older part of town derives a decidedly Portuguese flavour from the *Edefisiu Do Governador de Portugues em Dili* and other colonial buildings, some restored such as the beautiful old market square and office. This area is backed by steep limestone outcrops and shaded by large banyan tree and rustling palms. A clear freshwater spring feeds the large municipal Areia Branca Beach–a great place to enjoy a refreshing dip. beside the winding road from Dili, there is the small village of Fatucama-Areia Branca, Cristo Rei, and Dolok Oan and an absolutely breathtakingly beautiful coastline of white sand coves and beaches, stretching both east.

From the Dili plateau impressive mountain ranges including Mt Cameia Ulun in Cristo Rei Post Administrative (1848m) dominate the skyline. This 'Mountain of Spirits' is protected and considered sacred by the Timorese people. Climbing towering Mountain Cameia Ulun nuous undertaking. Towards the summit stunted alpine vegetation gives way to wind sculptured fluted rock pinnacles and hikers are rewarded with stunning views of the northtern part of Timor-Leste.

Driving through the rolling Dili City some areas seem almost untouched while others are used for Big Buildings Fisheries Area, and Rest Area such as Fish Shop, Shoping Center and beautifull of the Beach. Wonderful fresh fruit and vegetables are available selling roadside in Bidau Lecidere.

Very famous tourist attractions on the outskirts of Dili are White Sand Beach and Cristo Rei, some of these tourist icons are very famous for their beautiful beaches, and for religious tourism purposes for Christians, it is the statue of Cristo Rei. Destinations to these tourist attractions are not so far from the city center of Dili, can be reached using motor vehicles, bicycles, or public transportation or cars. For the CDFG Unipessoal Lda Station project it is located on the side of the road to the public road, the distance from the project area to the tourist attractions is about 10kilometers.

Mt. Cameia Ulun | Cristo Rei

Figure 36. Tourism in Dili

d. Social Components

i. Population and Communities

✓ **Numbers**

Suco Camea is one of seven Sucos in the post Administrative of Cristo Rei. Suco Camea is classified as urban Suco in Cristo Rei Post Administrative. Based on census in 2015, the total population in Suco Camea is 13,481, the total area is 2.31 km^2 and density is 351.3/km^2.

✓ **Locations**

Post Administrative Cristo Rei is one of six posts Administrative in Dili Municipality. Post Administrative Cristo Rei is 5 Km of Dili Municipality. Post Administrative Cristo Rei consists of seven Sucos such as: Balibar, Becora, Bidau Santana, Camea, Culu Hun, Hera and Metiaut.

✓ **Composition**

Dili is the first largest district in Timor Leste with a population of about 175,541 inhabitants (2015 Census). Local languages spoken in Dili include Tetum for the majority. A number of people above 80% understand Portuguese and most of the others, including the younger population generally understand Bahasa Indonesia. Portuguese is being taught in all schools and some English in the secondary.

ii. Health Profiles of Communities

Becora Hospital is a public hospital located in the Becora area close to 744 Football Field or Suco Kulau. The Becora Hospital was also built by the government in order to facilitate the people living in the Becora and Camea areas for treatment and hospitalization.

Becora Hospital can also handle labor problems for pregnant women, regular check-ups, treatment for seasonal illnesses such as flu, fever, headaches and other minor ailments.

For serious illness operations, they are usually transferred to a central hospital or commonly called the Guido Valadares National Hospital (Hospital Toko Baru) which is located in the Bidau area.

Figure 37. Becora Health Center

iii. Institution, Schools and Health Facilities

Taking both public and private schools, there are 92 primary schools, 32 junior high schools and 17 secondary schools. With regard to health facilities, there are 33 health posts and six community health centers and a hospital in Dili town. Access to facilities, based on average traveling times and average distance, is good with both the nearest health center and secondary school being between half and three-quarters of an hour away and the nearest primary school being half an hour away.

The district has the lowest malnutrition rate for children under five years old, but the morbidity rate is one of the highest in the country at 24% (*IPP691 Compliance with World Bank's Operational Policy 4.10 on Indigenous People).*

iv. Community Structure, Family Structure

The traditional Timorese culture - so well defended during the resistance period, and that served to help defend the argument for independence, due to the cultural difference regarding the occupying people – is based on the complexity of the family structure practiced in Timor-Leste.

It is a very particular structure, often misunderstood by the malae (foreigners). It is no accident that even people that do not know each other, in Timor-Leste – and that which is already being used by the malae - call themselves by mana or mao (if age or social situation is similar for women and men, respectively), tia or tio (whether it is someone older, a generation or two), avó or avô (if of an advanced age).

In practice, children, godchildren, cousins or persons from the same connection in the traditional structure, are considered immediate family, a situation that reflects the central structuring role of family ties in the Timorese society.

"The bond of kinship provides a long-term perspective, which lacks in other relationships. The permanence of family relationships, usually guaranteed by a biological link, allows, in a greater extent, to build trust and mutual commitment. Anchors are created - material and emotional - between individuals and their families. This means that a strong bond exists in society, which has guaranteed the well-being of families, in extended families such as the ones that exist in the Timor-Leste traditional structure.

v. Land Ownership (including informal or customary land ownership, and other rights over the land)

The designed land for the proposed project of CDFG Unipessoal Lda is a Government land and the project owner rented the land from the government for the long term. For details information and legal documents attached.

e. Cultural Components, Including non-physical Resources and Elements, Including

i. Cultural Heritage

Timorese cultural heritage is multi-layered–a fascinating combination of traditional Timorese, Portuguese, Chinese and Indonesian influences. This permeates their local architecture, cuisine, clothing styles and artistic endeavors.

Timorese culture continues to evolve in local arts and handicrafts, as well as in dance and music. Cultural motifs, both old and modern, are incorporated into the design of tais – hand-woven textiles, basket work and wood carving. Cultural groups still perform traditional dances and songs and also are entertaining in new ways. Talented Timorese bands and dance groups perform in local venues and at festivals.

Traditional culture in all its forms is still evident in everyday life in the Districts of Timor-Leste, despite colonization, war and invasion. Handed down by the ancestors these traditional beliefs and practices maintain social order, define kinship relationships and maintain a close and personal link with the land and the sea.

They also serve to maintain a sense of identity and belonging for the different ethnic groups. Whilst there is a degree of commonality amongst these beliefs and practices each clan has its own unique culture and language, making Timor-Leste a fascinating place to visit. Uma *luliks*, sacred houses, are at the center of traditional belief; they are the spiritual and ancestral home of the Timorese and hold the sacred objects that have been passed down from the ancestors. Sacred altars containing ancestral remains and places for animal sacrifice are often all that remain of many original *Uma Lulik* sites.

Traditional culture in all its forms is still evident in everyday life in the Districts of Timor-Leste, despite colonization, war and invasion. Handed down by the ancestors these traditional beliefs and practices maintain social order, define kinship relationships and maintain a close and personal link with the land and the sea. They also serve to maintain a sense of identity and belonging for the different ethnic groups.

Whilst there is a degree of commonality amongst these beliefs and practices each clan has its own unique culture and language, making Timor-Leste a fascinating place to visit. Uma *luliks*, sacred houses, are at the center of traditional belief; they are the spiritual and ancestral home of the Timorese and hold the sacred objects that have been passed down from the ancestors. Sacred altars containing ancestral remains and places for animal sacrifice are often all that remain of many original *Uma Lulik* sites

During pre-colonial times Timor-Leste society was organized into chiefdoms maintained by a complex system of marital and economic alliances. Liu Rai, kings ruled over these territories. There are numerous recorded and relayed instances of feuds and wars relating to land and marriage disputes during this time.

'Ai toos', sacred timber markers mark territorial clan boundaries and locations where ancient treaties were enacted, older clan members still respect these boundaries The importance of the Liu Rai was strengthened during Portuguese times when their authority was reinforced by the Portuguese who ruled through them, thus preserving this aspect of Timorese culture.

Catholicism, while introduced during Portuguese colonial times, only became an integral part of Timorese culture following the invasion by Indonesia. The reason for this has been explained as the advocacy and promise of protection afforded by the church. (Molnar A. 2005).

Since that time Catholicism has coexisted alongside traditional spiritual beliefs, the Catholic Church has pragmatically tolerated this duality. With an estimated 98% of Timorese being Catholic, religious ceremonies, churches and artifacts are important aspects of Timorese culture that are likely to attract cultural tourism of a religious nature. Local languages spoken in Dili include Tetum for the majority, a number of people above 40 understand Portuguese and most of the others, including the younger population generally understand Bahasa Indonesia. Portuguese is being taught in all schools and some English in the secondary.

ii. Archeological Sites

An archaeological site is a place (or group of physical sites) in which evidence of past activity is preserved (either prehistoric or historic or contemporary), and which has been, or may be, investigated using the discipline of archaeology and represents a part of the archaeological record. Sites may range from those with few or no remains visible above ground, to buildings and other structures still in use. There is no archeological site that founded around the project location.

iii. Historical Sites

Cristo Rei of Dili (Christ the King of Dili) is a 27.0 m high (88.6 ft) statue of Jesus located atop a globe in Dili, Timor Leste. The statue was designed by Mochamad Syailillah, who is better known as Bolil. The statue was officially unveiled by Soeharto in 1996 as gift from the Indonesian Government to the people of Timor Leste, the then Indonesian province. The statue is one of the main tourist attractions in Timor Leste.

The statue, and the globe on which it rests, are situated at the end of the Fatucama peninsula, facing out to the ocean and can be reached by climbing some 597 steps.

The idea of raising the *Cristo Rei* statue was proposed by the East Timor governor José Abílio Osório Soares to President Suharto. It was intended as a present for the 20th anniversary of East Timor's integration into Indonesia.

Suharto appointed the director of national airline Garuda Indonesia to lead the project. Garuda was given the responsibility to find capital for funding the project, and raised 1.1 billion rupiah (US$123,000). However, that was not sufficient to erect the statue, and contributions from East Timorese civil servants and businessmen were needed to complete the project, which eventually cost more than 5 billion rupiah (US$559,000).

It took almost a year of working to create the body of the statue, which was fabricated by 30 workers in Sukaraja, Bandung. It was made of 27 separate copper sections, which were then loaded onto three trailers and shipped to Dili. Reconstruction of the statue, including the globe and a 10-meter-high cross, took three months.

It was unveiled on 15 October 1996. Roman Catholic bishop Carlos Filipe Ximenes Belo, together with President Suharto and Timor Leste Governor José Abílio Osório Soares, directly witnessed the revelation of this statue from the air using a helicopter.

iv. Sacred Sites

Cristo Rei considered as Sacred Sites by Catholic people, The Catholic Church in Timor Leste is part of the worldwide Catholic Church, under the spiritual leadership of the Pope in Rome. Since its independence from Indonesia, East Timor became only the second predominantly Catholic country in Asia (after the Philippines), a legacy of its

status as a former Portuguese colony. About 98.3% of the population is Catholic in East Timor as of 2006, which means over 900,000 faithful.

The country was divided into three dioceses: Dili, Baucau and Maliana (erected in 2010). These dioceses are immediately subject to the Holy See.

The Apostolic Nuncio to East Timor is concurrently the nuncio to Indonesia. The position has been vacant since 11 October 2019, and the Nunciature is located in Jakarta.

v. Unique Landscape

No unique landscape near proposed location

7. ALTERNATIVES

a. Alternative Location

Alternatives to the project location will be presented in this section, as well as the historical use of the overall area in which the project site is located. These alternatives will be discussed from environmental and socio-economic perspectives.

Based on the preliminarily identification of feasibility study for the proposed location, there is no project alternative and the alternative locations are not the applicable alternatives to the project. In fact, the current location for the proposed fuel filling station is most reasonable aspect as it has been setup with the feasibility study assessment which concludes that the current location for the project site is acceptable.

b. Different Project Sizes or Design

Based on the current project design that submitted to the ANPM is a suitable design that company proposed due to the condition in the field.

c. Alternative Technologies/ Methods

Automated payments technology could invite consumers to link their debit or credit cards in a once-off registration process, and then fill up at any time.

8. CLIMATE CHANGE

a. Description of Historic Weather

The climate is tropical in Dili. The summers here have a good deal of rainfall, while the winters have very little. According to Köppen and Geiger, this climate is classified as Dwb. The Köppen climate classification divides climates into five main climate groups, with each group being divided based on seasonal precipitation and temperature patterns.

The five main groups are A (tropical), B (dry), C (temperate), D (continental), and E (polar). In Dili, the average annual temperature is 27.0 °C. In a year, the average rainfall is 1307 mm.

b. Details of Future Projection Under Projected Climate Change

The proposed project would emit carbon dioxide (CO2) from during construction and operation period. The emission emitted during the time of construction is directly through fuel use in construction vehicles and equipment, and there is in direct emission from generator usage when electrical power off. These are the future projection for climate change.

Future climate predictions for the course of the 21st Century (BoM CSIRO, 2011) include the following:

- Surface air temperature and sea-surface temperature are projected to continue to increase (very high confidence);
- Wet season rainfall is projected to increase (moderate confidence);
- Dry season rainfall is projected to decrease (moderate confidence); • Little change is projected in annual mean rainfall (low confidence);
- The intensity and frequency of days of extreme heat are projected to increase (very high confidence);
- The intensity and frequency of days of extreme rainfall are projected to increase (high confidence);
- Little change is projected in the incidence of drought (low confidence);
- Tropical cyclone numbers are projected to decline in the broad region surrounding Timor Leste (0–20ºS and 100ºE–130ºE) (moderate confidence);
- Ocean acidification is projected to continue (very high confidence); and
- Mean sea-level rise is projected to continue (very high confidence)

c. Implication for the Proposed Project

The project will be implemented after the proponent obtain license from government including environmental license.

d. Adaptation measures required to mitigate any potential adverse impacts

The impacts of the proposed alteration project on the environmental elements are both positive and negative. The magnitude of each impact is described in terms of being significant, minor or permanent, short-term or long term, specific (localized) or widespread, reversible or irreversible. Most of the impacts have been addressed in the proactive design of

the project and other mitigations can only be guaranteed through active and responsible management committed to the propositions of the environmental management plan.

9. IMPACTS ASSESSMENT AND MITIGATION MEASURES

Table 6. Impacts Assessment and Mitigation Measures

Pre-Construction

	Impacts	Parameter / particular concerns	Preventive actions	Control and responding actions	Corrective actions
• Land clearing • Vehicles movements • Use of heavy of machinery for land clearing and excavation • Wastes production and burning	**Air quality**	*Dust (particulate matter) and Flue gasses/ exhaust gasses impact on air quality*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Proper pilling of soil from earth work 3. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers. 4. Stop the work when it is windy if required to 5. Regularly conduct maintenance to vehicles and equipment to avoid emission to the air 6. Reduce vehicle's speed to minimise flue gasses emission and dust from suspend in the air 7. Turn off unnecessary idling of vehicles and machineries' engines 8. Inspect vehicles condition before using them 9. Wastes should not be burnt in the project area, but managed properly and disposed of at the designated location 10. Proper wastes management sign must be displayed at project site 11. Maximum supervision from project manager on the activities	1. Stop the activities if it generates a lot of dust 2. Stop using vehicles and equipment that emit too much flue gasses 3. Conduct maintenance to construction's equipment and vehicles when they emit gasses too much 4. Clean the wastes and disposed at the designated location 5. Maximum supervision from project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Install fence around the project site to isolate dust to spread to surround. This could be one of the corrective actions to isolate the dust to spread to surround. 3. Maximum supervision from project manager on the activities

• Land clearing • Vehicles movement and excavation • Use of heavy machinery for land clearing and excavation • Wastes production and burning	**Workers' Occupational health and Safety (OHS)**	*Dust (particulate matter) impact on Workers* *Flue gasses/ exhaust gasses impact on Workers*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Proper pilling of soil from earth work 3. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers. 4. Stop the work when it is windy 5. Prepare and provide Proper PPE and ensure they are worn by the Workers 6. Regularly conduct maintenance to vehicles and equipment to avoid emission into the air 7. Workers should spend less time next to idling engines 8. Turn off unnecessary idling of vehicles and machineries' engines 9. Inspect vehicles and machineries condition before using them 10. Wastes should not be burnt in the project area, but managed properly and disposed of at designated location 11. Proper wastes management sign must be displayed at project site 12. Maximum supervision from project manager on the activities	1. Stop the activities if it generates a lot of dust 2. Stop using vehicles and equipment that emit too much flue gasses 3. Conduct maintenance to construction's equipment and vehicles when they emit gasses too much 4. Clean the wastes and disposed at the designated location 6. Maximum supervision from project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Install fence around the project site to isolate dust to spread to surround. This could be one of the corrective actions to isolate the dust to spread to surround. 3. Maximum supervision from project manager on the activities
• Land clearing and excavation		*Workers exposure to extreme heat*	1. Workers must adjust exposure until body is acclimated to the heat 2. Do not ignore possible symptoms of heat stress 3. Provide water to Workers 4. Set up schedule for workers to rest and ensure workers take break according to working schedule 5. Provide and ensure workers to wear proper PPE 6. Emergency contact numbers should be provided and displayed in the working area 7. Maximum supervision from project manager on the activities	1. Notify supervisor of any personal risk factors 2. Treat Workers suffer from unserious heat stress 3. Evacuate the workers suffer from serious heat stress to hospital or clinic close by or call ambulance for evacuation 4. Maximum supervision from the project manager on the activities and sick Workers	1. Let the Workers recover completely before resume to work 2. Compensate the workers if necessary 3. Reassess the existing preventative measures and implement the result 4. Maximum supervision from the project manager on the activities
• Land clearing using heavy machineries • Vehicles movements during land clearing and excavation		*Workers injury related to accident (vehicles, heavy duty equipment, etc.)*	1. Only allow experienced drivers to drive company's vehicles 2. Only allow experienced Workers operate heavy machineries 3. Prepare and provide PPE to Workers and ensure the PPE are used by the workers 4. Ensure Workers are fit prior to undertake any works 5. Hiring healthy Workers 6. First aid kids should be placed at strategic locations and easy to reach out 7. Direct away community movement from project site using appropriate sign 8. Assigned tasks to Workers based on their skill and knowledge 9. Provision of training for proper equipment handling and safety precaution for equipment handling	1. Cease the work temporarily when there is accident or incident 2. Treat the unserious injured Workers 3. Evacuate the serious injured Workers to nearest hospital or clinics or call ambulance for evacuation assistance 4. Maximum supervision from the manager on the activities and the injured Workers	1. Let Workers recover completely before resume to work 2. Compensate the Workers if necessary 3. Reassess the existing preventative measures and implement the result 4. Maximum supervision from the manager on the activities

			10. Emergency contact numbers should be provided and displayed in working area. 11. Maximum supervision from the project manager on the activities		
• Use of heavy machinery during land clearing and excavation		*Workers mechanical related works accident or incident*	1. Hiring people with related work experiences 2. Workers must understand mechanical hazard 3. Prevent body from contacting hazardous moving parts of equipment 4. Prepare and provide PPE to Workers and ensure the PPE are used by the workers 5. Ensure no objects fall into moving parts of equipment 6. First aid should be prepared at the site 7. Maximum supervision from the project manager on the activities	1. Cease the work temporarily when workers are injury 2. Apply first aid to treat the unserious injured Workers properly 3. Evacuate the serious injured Workers nearby hospitals or clinics or call ambulance for evacuation 4. Maximum supervision from the project manager on the activities and injured Workers	1. Let the injured Workers recover completely before resume to work 2. Compensate the Workers if necessary 3. Reassess the existing preventative measures and implement the result 4. Maximum supervision from the project manager on the activities
• Use of heavy machinery during land clearing and excavation		*Noise impact to Workers*	1. Provide PPE to workers and ensure the PPE are worn by workers 2. Mechanical equipment with lower sound power levels will be selected to ensure that the permissible occupation noise-rating limit of 85 dBA is not exceeded. 3. All equipment to be adequately maintained and kept in good working order to reduce noise. 4. Control noise level to not exceed the limit 5. Maximum supervision from the project manager on the activities	1. Stop the work temporarily if it generates noise that exceed the limit 2. Maximum supervision from the project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Maximum supervision from the project manager on the activities
• Vehicles movements during land clearing and excavation • Land clearing • Use of heavy of machinery for land clearing and excavation • Wastes production and burning	**Social impact (community health and safety)**	*Dust (particulate matter) and Flue gasses/ exhaust gasses impact on community*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Proper pilling of soil from earth work 3. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers. 4. Stop the work when it is windy if needed 5. Prepare and provide PPE to community surround the project if required 6. Regularly conduct maintenance to equipment and vehicles to avoid emission to the air 7. Reduce vehicle speed to minimize flue gasses emission and dust from suspend in the air 8. Turn off the unneeded idling of vehicles and machineries' engines 9. Inspect vehicles and equipment condition before use them 10. Wastes should not be burnt in the project area, but managed properly and disposed at designated location 11. Proper wastes management sign must be displayed at project site 12. Maximum supervision from project manager on the activities	1. Cease the work temporarily if it generates a lot of dust and if there is complaint 2. Record and resolve the complaint before resume to work 3. Stop using vehicles and machineries that emit flue gasses too much 4. Conduct maintenance to construction's equipment and vehicles when they emit gasses too much 5. Call the police if physical confrontation is involved during the complaint 6. Clean the wastes and dispose of at the designated location 7. Maximum supervision from project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Install fence around the project site to isolate dust to spread to surround. This could be one of the corrective actions to isolate the dust to spread to surround. 3. Maximum supervision from project manager on the activities

• Vehicles movements inside and outside project area during site preparation • Land clearing • Excavation		*Traffic Jam and Traffic accident (general traffic)*	1. Co-ordination of movement of vehicles on and off site to reduce risks and prevent congestion on the roads in the vicinity of the site. 2. Project owner shall ensure the driver has valid driving license and if project owner hire its own driver, it shall ensure to hire competent and experienced drivers 3. Signs should be installed near the project area to inform general traffic 4. Designate personnel to help smoothing the traffic during vehicles movements in and out of the project and in cases the movement may obstruct traffic especially in the peak hours, local traffic officials/police officer must be contacted. 5. Reduce number of construction vehicle leaving the site during peak hours 6. Clear markings to set apart vehicle and pedestrians routes right outside the project site 7. Provide designated safe zones for drivers to stand when unloading/loading material is being undertaken. 8. Driver should follow established traffic rules 9. Driver should not be under alcohol influence when driving companies' vehicles 10. Encourage drivers to walk the route and plan for manoeuvrability on sites 11. Manage the work hours and duration for drivers to minimize fatigue. 12. Establish a speed limit to the driver driving outside the project area. 13. Established parking area outside of the project area should not cause traffic jam 14. If project owner uses its car for the construction work then it shall ensure first aid kit is available inside the car. 15. Provide emergency contact number in the vehicles and make driver aware of it 16. Maximum supervision from the project manager on the activities	1. Drivers should stop the vehicles immediately if vehicles cause traffic accident or incident 2. Other activities shall be stop temporarily 3. Driver or worker should immediately contact relevant emergency contact number for assistance 4. Driver should let project manager know right away 5. Apply first aid to treat small injured 6. Evacuate serious injured to hospital or clinics or call ambulance for evacuation 7. Maximum supervision from project manager on the activities	1. Compensate the vehicle accident victims if necessary 2. Reassess the existing preventative measures and implement the result 3. Maximum supervision from project manager on the activities
• Vehicles movements in the project area during site preparation • Land clearing and excavation		*Noise and vibration impact to community*	1. Neighbouring landowners must be informed prior to any loud work 2. Work should occur during day hours only between 08:00Am-5:00Pm, on week days only. 3. Mechanical equipment with lower sound power levels will be selected to ensure that the permissible occupation noise-rating limit of 85 dBA is not exceeded. 4. All equipment to be adequately maintained and kept in good working order to reduce noise. 5. Use low noise and vibration equipment 6. Maximum supervision from the project manager on the activities	1. Cease the work temporarily when there is complaint from the community 2. Resolve complaints from the community in a proper manner 3. Call the police if there is physical confrontation involved during the complaint 4. Maximum supervision from the project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Maximum supervision from the project manager on the activities
• Leaking of fuels and lubricants from the heavy machinery and vehicles	**Soil quality, Water quality (both groundwater and surface water)**	*Soil, surface and groundwater pollution*	1. Inspection to construction vehicles and heavy machineries should be regularly done 2. All construction vehicles and heavy machineries should be properly maintained to prevent leaks. 3. Spillage or leakage of oil and lubricants should be cleaned promptly using proper procedure and equipment and	1. Project manager should be notified when construction vehicles or heavy machineries leak 2. Leaking construction vehicles or heavy machineries should	1. Remediation must be undertake by the company when contamination is detected 2. Reassess the existing preventative measures and

			should be disposed of at the designated location. 4. Provide basic clean up material such as sand or any type of absorbents 5. Maximum supervision from the project manager on the activities	undergo maintenance right away when it is found. 3. Clean up the spill using basic clean up material and dispose in the appropriate location 4. Maximum supervision from the project manager on the activities	implement the result 3. Maximum supervision from the project manager on the activities
• Poor management during excavation and land clearing		*Soil and surface water pollution*	1. Install sediment retention structure around the project site to capture sediments in the raining season 2. Limit vehicles movement during raining season 3. Maximum supervision from the project manager on the activities	1. If the sediments from excavation and land clearing overload to public road, proponent shall immediately do the clean up 2. Maximum supervision from the project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Maximum supervision from the project manager on the activities
• Land clearing	**Ecology impact**	*Impact on animals Vegetation and animals*	1. Avoid cutting to trees that are not in the project area and that do not interfere with the site preparation 2. Avoid removing grasses that are not in the project area and that do not interfere with the site preparation 3. Avoid killing any animal during site preparation 4. Maximum supervision from the project manager on the activities	-	1. Replant appropriate grass and trees in the project area after the construction 2. Maximum supervision from the project manager on the activities
• Land excavation • Land clearing	**Geological impact**	*Disturbance of soil and rock*	1. Using appropriate excavation equipment 2. Excavation should only be done in the designated location 3. When find any minerals, relevant authority should be notified 4. Relevant authority should be notified if company plans to excavation soil or rock in other location for levelling the surface 5. The stock pile of soil and rock should be put at designated location 6. Stop the work when it is raining 7. Maximum supervision from the project manager on the activities	1. Cease the work temporarily when a mineral is found while excavating and notify the relevant authority 2. Resume the work if an investigation to the location is done 3. Maximum supervision from the project manager on the activities	1. Maximum supervision from the project manager on the activities
	Economic and agricultural impacts	*Impact on economic and agriculture activities*	1. Asking for permission from the landowners before dumping soil or rock and other materials on lands 2. Avoid dumping soil or rocks and other material on community agricultural land 3. Proper sign must be displayed at project site 4. Wastes should be managed properly and disposes at designated location 5. Maximum supervision from the project manager on the activities	1. Cease the work temporarily when these is complaint 2. Resolve the complaint in a proper manner 3. Call police if there is physical confrontation involved during the complaint 4. Clean the wastes and disposed at the designated location 5. Maximum supervision from the project manager on the activities	1. Let the police investigate people of involve in physical confrontation 2. Compensate if needed 3. Reassess the existing preventative measures and implement the result 4. Remind the workers to manage and dispose wastes at designated location 5. Maximum supervision from the project manager on the activities

CONSTRUCTION

Activities	Impacts	Parameter/ particular concerns	Preventive action	Control and responding action	Corrective action
• Vehicles movements in and out of the project area • Concrete mixture • Use of heavy machineries • Use of backup generator • Wastes production and burning	**Air quality**	*Dust (particulate matter) and Flue gasses/exhaust gasses from activities impact on air quality*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Reduce vehicle speed to minimize flue gasses emission and dust from suspend in the air. 3. Stock piles and spoil heaps must be covered with tarpaulins or straw to prevent fugitive dust. 4. Stop the work if it is windy 5. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers. 6. Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. 7. Regular maintenance for construction vehicles and equipment to avoid emission to the air 8. Turn of the unnecessary idling engines of vehicles and machineries 9. Waste should not be burnt in the project area, but managed properly and disposed of at designated location 10. Proper wastes management sign must be displayed at project site 11. Maximum supervision from project manager on the activities	1. Cease the work temporarily if it generates a lot of dust 2. Stop using vehicles and machineries that emit flue gasses too much 3. Clean the wastes and disposed at the designated location 4. Maximum supervision from project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Conduct maintenance to construction's equipment and vehicles when they emit gasses too much 3. Install fence around the project site to isolate dust to spread to surround. This could be one of the corrective actions to isolate the dust to spread to surround 4. Ensure that necessary measure has been put in place prior to resume the construction activities 5. Maximum supervision from project manager on the activities

• Vehicles movements in and out of the project area • Use of concrete mixer • Use of heavy machinery • Use of backup generator • Wastes production and burning	**Workers' Occupational Health and Safety (OHS)**	*Dust (particulate matter) and Flue gasses/exhaust gasses impact on workers*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Proper pilling of soil from earth work 3. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers. 4. Stop the work when it is windy 5. Prepare and provide PPE to workers and ensure they are worn by workers 6. Regularly conduct maintenance to vehicles and equipment to avoid emission into the air 7. Turn off unnecessary idling of vehicles and machineries' engines 8. Inspect vehicles and machineries condition before using them 9. Wastes should not be burnt in the project area, but managed properly and disposed of at designated location, 10. Proper wastes management sign must be displayed at project site 11. Maximum supervision from project manager on the activities	1. Cease the work temporarily if it generates a lot of dust 2. Stop using vehicles and machineries that emit flue gasses too much 3. Conduct maintenance to construction's equipment and vehicles when they emit gasses too much 4. Clean the wastes and disposed at the designated location 5. Maximum supervision from project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Install fence around the project site to isolate dust to spread to surround. This could be one of the corrective actions to isolate the dust to spread to surround. 3. Ensure that necessary measure has been put in place prior to resume the construction activities 4. Maximum supervision from project manager on the activities
• Construction and installation of the project's components		*Electrical related work accident or incident*	1. Only allow professional and experienced people install the electrical system 2. Proper PPE must be worn when installing electrical system 3. Install specific cable only for the electrical system 4. Inspect wiring of equipment before each use. 5. Use safe work practices every time electrical equipment is used. 6. Minimize the potential for water or chemical spills on or near electrical equipment. 7. Only suitable electrical equipment provided are used 8. First aid kits much be made available at project site 9. Maximum supervision from the project manager on the activities	1. Cease the activities temporarily when there is accident on incident related to electricity 2. Treat the minor injured Workers if possible 3. Evacuate the serious injured Workers to nearest hospital or clinic or contact emergency number for evacuation assistance 4. Electrical system installations should be installed by a competent person 5. Maximum supervision from the project manager on the activities	1. First aid kits much be made available at project site 2. Let the injured Workers fully recover before resume to work 3. Compensate the Workers if necessary 4. Do proper record and make the record available in the project for audit purpose 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure has been put in place prior to resume the construction activities 7. Maximum supervision from the project manager on the activities
		Expose to heat extreme heat	1. Workers must adjust exposure until body is acclimated to the heat 2. Set up schedule for workers to rest and ensure workers take break according to working schedule 3. Do not ignore possible symptoms of heat stress 4. Use proper PPE 5. Water should be provided in the work site for the workers 6. Maximum supervision from the project manager on the activities	1. Notify supervisor of any personal risk factors 2. Applied first aid to treat Workers that suffer from mild heat stress 3. Evacuate Workers that suffer from moderate or severe heat stress to nearest hospital or clinic or contact emergency number for evacuation	1. Let the worker fully recover before resume to work 2. Compensate the Workers if necessary 3. Do proper record and make the record available to the ANPM. 4. Reassess the existing preventative measures and implement the result 5. Ensure that necessary

				4. Maximum supervision from the project manager on the activities	measure has been put in place prior to resume the construction activities 6. Maximum supervision from the project manager on the activities
		Accident or incident related to installation of components (underground storage, canopy, pump island, pipework, wall/fence, office etc.)	1. Project manager should ensure that all Workers are fit prior to undertake the work 2. The installation and construction of the project component should be done by professional and experienced Workers only. The information (CV) on staff to undertake the installation of critical equipment such as tanks, pumps, piping system and fuel dispensers shall be provided to ANPM before the construction begins. 3. Workers shall wear proper PPE and project manager should ensure that all contractors, consultants and labourers must wear appropriate personal protective equipment (PPE) on site. 4. First Aid kits must be made available at workplace 5. The construction site must be fenced off to prohibit unauthorized access and site access must be strictly controlled. 6. Open excavations must be clearly marked. 7. Appropriate health and safety signage must be displayed on site. 8. Emergency contact numbers should displayed in the project area and construction worker should be made know of it 9. All visitors must report to the site office. 10. Sign for the hazardous zones should be displayed on site 11. Barricade hazardous zones 12. Maximum supervision from the project manager on the activities	1. Cease the work temporary when there is serious accident or incident 2. Only certified first aid worker are allowed to apply first aid to unserious injured workers 3. Evacuate serious injured Workers to nearest hospital or clinic or contact emergency number for evacuation 4. Maximum supervision from the project manager on the activities	1. Let the injured Workers recover completely before resume to work 2. Compensate the Workers if necessary 3. Do proper record and make the record available to the ANPM. 4. Reassess the current prevention measures and implement it 5. Ensure that necessary measure has been put in place prior to resume the construction activities 6. Maximum supervision from the project manager on the activities
		Accident or incident related to work in Confined space	1. Proper procedure for Confine Space entry shall be established and shall be made available anytime to the authority 2. Work related to Confined Space must follow the established procedure 3. Ensure that only certified Workers can perform confined space work 4. Appropriate protective equipment shall be used during perform confined space work 5. Make sure work to in a team of two or more 6. Maximum supervision from the project manager on the activities	1. Cease the temporarily when accident or incident happen 2. Rescue the injured workers from the confined space 3. Apply first aid to treat non serious injury 4. Evacuate the serious injured Workers to nearest hospital or clinic or call ambulance 5. Maximum supervision from the project manager on the activities	1. Let the work recover completely before resume to work 2. Proper record on the incident and investigation result and shall make record available to the ANPM 3. Compensate the Workers if necessary 4. Reassess the current prevention measures and implement it 5. Ensure that necessary measure has been put in place prior to resume the construction activities 6. Maximum supervision from the project manager on the activities
• Vehicles movements in		*Risk injury related to*	1. Only allow experienced drivers to drive company's vehicles	1. Cease the work temporarily when there is	1. Let the injured Workers recover completely before

and out of the project area • Working with heavy machineries • Work at height		*accident (vehicles, heavy duty equipment, working in height, etc.)*	2. Only allow experienced Workers operate heavy machineries 3. Install proper traffic sign in the project area and outside the project area 4. Provide safety briefing to the workers 5. Provide First aid kits at project site 6. Hold frequent safety meeting 7. Wear proper PPE for working at height 8. Trying a less risky option 9. Organizing work to reduce exposure to the hazard. 10. Preventing access to the hazardous zones. 11. Workers must make sure that every time other Workers are on roofs and scaffolding, fall-prevention countermeasures are in place. 12. Prevent falling objects 13. Do proper risk assessment before performing the work specially work at height 14. Maximum supervision from project manager on the activities	serious accident or incident 2. Rescue the injured work 3. Apply first aid to treat unserious injury 4. Evacuate serious injured Workers to nearest hospital or clinic or contact ambulance for evacuation assistance 5. Notify the ANPM on the accident. 6. Maximum supervision from the project manager on the activities	resume to work 2. Proper record on the incident and investigation result and shall make the record available to the ANPM. 3. Compensate the Workers if necessary 4. Reassess the current prevention measures and implement it 5. Ensure that necessary measure has been put in place prior to resume the construction activities 6. Maximum supervision from project manager on the activities
• Welding • Installation of project's components • Maintenance of cars and heavy machineries		*Workers Mechanical related works accident or incident*	1. Hiring people with related work experiences and knowledge so that they understand hazards and associated risks 2. Proper PPE must be worn before starting work 3. Prevent body from contacting hazardous moving parts 4. Ensure no objects can fall into moving parts 5. First aid kits shall be made available on site 6. Do proper risk assessment before performing the work specially work at height 7. Maximum supervision from project manager on the activities	1. Cease the work temporarily when there is accident or incident 2. Evacuate injured Workers to safe place 3. Apply first aid to treat unserious injury 4. Evacuate serious injured Workers to nearest hospital or clinic or call ambulance 5. Notify the ANPM on the accident. 6. Maximum supervision from project manager on the activities	1. Investigate what causes the fire or explosion 2. Proper record on the incident and investigation result and make the result available to the ANPM. 3. Let the Workers recovery completely before resume to work 4. Compensate the Workers if necessary 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure has been put in place prior to resume the construction activities 7. Maximum supervision from the project manager on the activities
• Welding • Installation of electricity • Leaking of fuels from vehicles and heavy machineries		*Impact of fire or/and explosion in the project site on Workers*	1. Hiring people with related knowledge and work experiences to do welding and instal electricity system so that they understand fire hazards and associated risks 2. Do proper risk assessment before performing welding and electrical work 3. Investigate surroundings before welding begins 4. Keep flammable materials far from welding areas 5. Practice good housekeeping 6. Any leakage from vehicle or heavy machinery should be cleaned immediately before carry out the activities 7. Establish emergency procedure and ensure it is well understood by Workers. 8. Provide emergency contact number in the project and make the Workers aware of it	1. Cease the work temporarily when there is fire in the project area and Extinguish with fire extinguisher 2. If the fire is out of control, call Fire department for assistance 3. Evacuate Workers in the project site 4. Treat the unserious injured Workers 5. Contact emergency numbers to evacuate the	1. Investigate what causes the fire or explosion 2. Proper record on the incident and investigation result and make the record available to the ANPM 3. Let the workers recover completely before resume to work 4. Compensate the Workers if necessary 5. Reassess the existing preventative measures and implement the result

			9. Routine inspections of escape routes & fire safety signage 10. Always keep a fire extinguisher nearby 11. Provide First aid kits 12. All worker should wear proper PPE 13. Maximum supervision from the project manager on the activities	serious injured Workers to nearest hospital or clinic, 6. Notify the ANPM on the accident. 7. Maximum supervision from the project manager on the accident or incident	6. Ensure that necessary measure has been put in place prior to resume the construction activities 7. Maximum supervision from the project manager on the activities
• Vehicles movement in and out of the project area • Movement and use of heavy machinery • Excavation		*Noise and vibration impact on workers*	1. Provide proper PPE to Workers and ensure the PPE are used by workers 2. Use low noise and vibration machineries 3. Schedule resting time properly 4. Mechanical equipment with lower sound power levels will be selected to ensure that the permissible occupation noise-rating limit of 85 dBA is not exceeded. 5. All equipment to be adequately maintained and kept in good working order to reduce noise. 6. Maximum supervision from the project manager on the activities	1. If the noise and vibration exceed the limit, stop the activities temporarily 2. Check the equipment and do proper maintenance if required. 3. Maximum supervision from the project manager on the activities	1. Do proper record and make it available in site 2. Reassess the existing preventative measures and implement the result 3. Ensure that necessary measure has been put in place prior to resume the construction activities 4. Maximum supervision from the project manager on the activities
• Vehicles movements in and out of the project • Use of concrete mixer • Working with heavy machineries • Use of backup generator • Wastes production and burning	**Social impact (community's health and safety)**	*Dust (particulate matter) and Flue gasses /exhaust gasses impact on community*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Stock piles and spoil heaps must be covered with tarpaulins or straw to prevent fugitive dust. 3. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project area to remind the drivers. 4. Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. 5. Regular maintenance for construction vehicles, equipment and backup generator to avoid emission to the air 6. Turn off unnecessary idling of vehicles and machineries' engines 7. Stop using heavy flue gasses emitter vehicles, machineries and back-up generator 8. Wastes should not be burnt in the project area, but managed properly and disposed of at designated location 9. Proper wastes management sign should be displayed at the project site 10. Maximum supervision from project manager on the activities	1. Cease the work temporarily if it generates a lot of dust and if there is complaint 2. Record and resolve the complaint before resume to work 3. Stop using vehicles and machineries that emit flue gasses too much 4. Call the police if physical confrontation is involved during the complaint 5. Clean the wastes and dispose at the designated location 6. Maximum supervision from project manager on the activities	1. Let the police investigate people who involve in physical confrontation 2. Re planting trees or grass after construction at appropriate and designated location 3. Conduct maintenance to construction's equipment and vehicles when they emit gasses too much 4. Reassess the existing preventative measures and implement the result. 5. Install fence around the project site to isolate dust to spread to surround. This could be one of the corrective actions to isolate the dust to spread to surround. 6. Ensure that necessary measure has been put in place prior to resume the construction activities 7. Maximum supervision from project manager on the activities

• Vehicles movements in and out of the project site • Movement of people outside the project site		*Traffic Jam and traffic accident (general traffic)*	1. Co-ordination of movement of vehicles on and off site to reduce risks and prevent congestion on roads in the vicinity of the site. 2. Project owner shall ensure the driver has valid driving license and if project owner hire its own driver, it shall ensure to hire competent and experienced drivers 3. Signs should be installed near the project area to inform general traffic 4. Designate personnel to help smoothing the traffic during vehicles movements in and out of the project area and in cases the movement may obstruct traffic especially in the peak hours, local traffic officials/police officer must be contacted. 5. Reduce number of construction vehicle leaving the site during peak hours 6. Clear markings to set apart vehicle and pedestrians routes right outside the project site; 7. Unloading of materials should be performed inside the project area 8. Established parking area outside of the project area should not cause traffic jam. 9. Driver should follow established traffic rules and signs on the roads 10. Driver should not be under alcohol influence when driving company's vehicles 11. Manage the work hours and duration for drivers to minimize fatigue. 12. Make sure visitors report to the site office 13. Provide warning signs at all entrances and exits to the site. 14. Establish a speed limit to the driver driving outside the project area. 15. Time deliveries for quiet times of the day to reduce the number of people who are likely to be near the vehicle being unloaded. 16. Maximum supervision from the project manager on the activities	1. Drivers shall stop the vehicles immediately if the vehicles cause traffic accidents or incidents 2. Other activities within the site shall be stop temporarily 3. Driver or worker should immediately contact relevant emergency contact number for assistance 4. Driver should let project manager know right away when there is accident or incident 5. Apply first aid to treat small injured 6. Evacuate serious injured to hospital or clinics or call ambulance for evacuation 7. Maximum supervision from project manager on the activities	1. Let the police investigate the accident 2. Proper record on the incident and accident, and investigation result and make the record available to the ANPM 3. Compensate the victims if necessary 4. Reassess the existing preventative measures and implement the result 5. Ensure that necessary measure has been put in place prior to resume the construction activities 6. Maximum supervision from project manager on vehicles movement outside the project area
• Vehicles movements in and out of the project area • Working with heavy machineries • Construction of project's components		*Noise and vibration impact to community*	1. Community around the project location should be notified regarding the project and impact related to the project 2. Work should occur during hours only between 08:00Am-5:00Pm, on week days only. 3. Mechanical equipment with lower sound power levels will be selected to ensure that the permissible occupation noise-rating limit of 85 dBA is not exceeded. 4. All equipment to be adequately maintained and kept in good working order to reduce noise. 5. Mechanically isolate the vibrating source or surface to reduce exposure. 6. Ensure that equipment is well maintained to avoid excessive vibration. 7. Inspect and maintain machinery tools regularly to identify damage that could increase vibration. 8. Follow manufacturer instructions for use and	1. Cease the activities temporarily when there is complaints 2. Resolve complaints from the community in a proper manner 3. Call the police if there is physical confrontation involved during the complaint 4. Perform monitoring for equipment that presents a vibration risk 5. Maximum supervision from the project manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Ensure that necessary measure has been put in place prior to resume the construction activities 3. Maximum supervision from the project manager on the activities

			maintenance. 9. Use high-quality, low-vibration tools. 10. Maximum supervision from the project manager on the activities		
• Welding • Leaking of fuels from vehicles • Electrical workds		*Impact of fire or/and explosion to community*	1. Hiring people with related knowledge and work experiences to do welding and instal electricity system so that they understand fire hazards and associated risks 2. Do proper risk assessment before performing welding and electrical work 3. Investigate surroundings before welding begins and keep flammable materials far from welding areas 4. Practice good housekeeping and if there is any leakage from vehicle or heavy machinery, it should be cleaned immediately before carry out the activities 5. Establish emergency procedure and ensure it is well understood by Workers. 6. Notify neighbours prior to perform any work associated with fire hazards 7. Develop a grievance procedure to ensure fair and prompt resolution of problems arising from the project. 8. Maintain full written records of each grievance case and the associated processes of resolution and outcome for transparent, external reporting. 9. Routine inspections of escape routes & fire safety signage 10. Always keep a fire extinguisher nearby and ensure workers are aware to use fire extinguishers 11. Provide emergency contact number in the project and make the Workers aware of it 12. Provide First aid kits 13. All worker should wear proper PPE 14. Maximum supervision from the project manager on the activities	1. Cease the work temporarily when there is fire 2. Use proper fire extinguisher when there is fire in the project 3. Contact emergency numbers for assistance when fire is out of control before it spread to community house or facilities 4. Evacuate community to safe place 5. Treat the unserious injured Workers 6. Evacuate the serious injured Workers to nearest hospital or clinic or contact emergency number for evacuation assistance 7. Notify the ANPM 8. Maximum supervision from the project manager on the accident or incident	1. Investigate what causes the fire or explosion 2. Compensate the Workers if necessary 3. Maintain full written records of each grievance case and the associated process of resolution and outcome for transparent, external reporting. 4. Maximum supervision from the project manager on the activities
• Leaking of fuels and lubricant from movement of vehicles and use of heavy machineries	**Soil quality, Water quality (both groundwater and surface water)**	*Soil, surface water and groundwater pollution due to leaking of fuel and lubricant from vehicles and heavy machinery*	1. Inspection to construction vehicles and heavy machineries should be regularly done 2. All construction vehicles and heavy machineries should be properly maintained to prevent leaks. 3. Any accidental spill or leak of substances (e.g. oil and lubricants) has to be cleaned promptly using proper procedure and equipment and should be disposed of in designated location 4. Provide basic clean up material such sand, wood powder or other basic material 5. Maximum supervision from the project manager on the activities	1. Project manager should be notified when construction vehicles or heavy machineries leak 2. Clean the area contaminated using appropriate cleaning material and Notify environmental authority for any contamination 3. Dispose the waste in the appropriate location 4. Maximum supervision from the project manager on the activities	1. Do proper record and make the record available on site 2. Leaking construction vehicles or heavy machineries should undergo maintenance right away when it is found and should not be used unless it has undergone maintenance 3. Remediation must be undertaken when contamination is detected 4. Ensure that necessary measure has been put in place prior to resume the construction activities 5. Maximum supervision from the project manager on the activities
• Poor management of the		*Soil, surface water and groundwate*	1. Install sediment retention structure around the project site to capture sediments in the raining season 2. Limit vehicles movement during rainy day	1. If the sediment from excavation and land clearing	1. Reassess the existing preventative measures and implement the result

construction site		*r pollution due construction*	3. Avoid working during raining 4. Maximum supervision from the project manager on the activities	overload to public road, proponent shall immediately do the clean up 2. Maximum supervision from the project manager on the activities	2. Ensure that necessary measure has been put in place prior to resume the construction activities 3. Maximum supervision from the project manager on the activities
• Construction activities	**Ecological Impact**	*Impact on Vegetation and animal*	There might be very low or zero negative impact of the construction of project on vegetation and animals		
• Construction activities • Waste production	**Economic and agriculture impact**	*Impact on economic and agricultural activities*	1. Asking for permission from the landowners before dumping soil or rock and other materials on their lands 2. Avoid dumping soil or rocks and other material on community agricultural land 3. Proper sign for waste management must be displayed at project site 4. Wastes should be managed properly and dispose in appropriate location 5. Maximum supervision from the project manager on the activities	1. Cease the work temporarily when these is complaint 2. Resolve the complaint in a proper manner 3. Call police if there is physical confrontation involved during the complaint 4. Clean the wastes and dispose at the designated location 5. Maximum supervision from the project manager on the activities	1. Let the police investigate people of involve in physical confrontation 2. Compensate if needed 3. Reassess the existing preventative measures and implement the result 4. Ensure that necessary measure has been put in place prior to resume the construction activities 5. Maximum supervision from the project manager on the activities

OPERATION

Activities	Impacts	Parameter/ particular concerns	Preventive action	Control and responding action	Corrective action
• Vehicles movement (costumers and company's) in and out of the facility • Use of backup generator • Wastes production and burning	**Air quality**	*Dust (particulate matter) and Flue gasses/ exhaust gasses impact on air quality*	1. Area dedicated for the access of vehicles shall be made of concrete 2. To plant grass and trees in the area that are not for the access of vehicles 3. Visual inspection should be conducted regularly on the floor for dust and regularly clean the dust by spraying water 4. Reduce vehicles speed in the facility 5. Regularly clean dust of the floor in the facility area 6. All delivery tankers should be adequately maintained to reduce exhaust emissions 7. Discourage idling of vehicles engines in the facility to reduce exhaust emission 8. Wastes should not be burnt onsite, but managed properly and disposed at designated location 9. Proper wastes management sign must be displayed in the facility 10. Regular maintenance of backup generator to reduce emission 11. Maximum supervision from the facility manager on the activities	1. Stop using vehicles deliver fuel and generator that emit flue gasses too much 2. Clean the wastes and disposed at the designated location 3. Maximum supervision from the facility manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Conduct maintenance to vehicles delivering fuel when they emit gasses too much 3. Maximum supervision from the facility manager on the activities
• Storing fuel in underground storage tanks • Refilling/dispensing of fuel to customer vehicle • Loading of fuels to underground storage tank		*Volatile Organic compounds (VOCs) impact on air quality*	1. Make sure that underground tank seals are kept in good condition and caps are appropriately sealed 2. Ensure that fuel nozzles cut off automatically when tank is full 3. A competent person must remain near the tanker during unloading 4. Regular monitoring and inspection for leaking from pipework, dispensers and tanks, and implementing repairs within predefined period 5. Pressure vacuum (PV) vent should be used for gasoline tanks to avoid continuation of the releasing of gasses from the tanks. 6. All staff should ensure that dispensers hoses are not laid on the filling area and pump island floor at any time 7. Regular check the vapour control systems and make sure that they are in good condition 8. Procedure shall be established for fuel quantity check, refilling to storage tank and dispensing to customer vehicle. The procedure shall be provided to the ANPM for review before operational license is granted 9. The procedure shall be affixed in the visible location in the facility and the workers shall be training to understand and follow the procedure 10. Proponent shall ensure the workers carry out the work based on the established procedure 11. Maximum supervision from the facility manager on the activities	1. Conduct maintenance to leaking pipework, dispenser, tanks and vapour control system if found damaged and corroded 2. Maximum supervision from the facility manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Do proper record and make it available on site 3. Maximum supervision from the facility manager in the activities
• Vehicles movement (Costumers and	**Workers' Occupational Health and Safety (OHS)**	*Dust (Particulate matter) and Flue gasses/*	1. Area dedicated for the access of vehicles shall be made of concrete 2. Plant grass and trees in the area that are not for the access of vehicles	1. Stop using vehicles delivery fuel and generator that emit flue gasses too much	1. Reassess the existing preventative measures and implement the result

company's) • Use of backup generator • Wastes production and burning		*exhaust gasses impact on workers*	3. Visual inspection should be conducted regularly on the floor for dust and regularly clean the dust by spraying water 4. Provided proper PPE to Workers and Workers should wear the PPE when it is dusty in facility area 5. All delivery tankers should be adequately maintained to reduce exhaust emissions 6. Vehicle speeds in the facility should be reduced to minimize vehicle smoke in the area 7. Discourage idling of vehicles' engines to reduce exhaust gasses emission 8. Wastes should not be burnt in the facility, but managed properly and disposed of at the designate location 9. Proper wastes management sign must be displayed inside the facility 10. Regular maintenance of back-up generator and company's vehicles to reduce emission 11. Maximum supervision from the facility manager on the activities	2. Clean the wastes and disposed at the designated location 3. Maximum supervision from the facility manager on the activities	2. Conduct maintenance to vehicles delivering fuel when they emit gasses too much 3. Maximum supervision from the facility manager on the activities
• Storing fuel in underground storage tanks • Refilling/dispensing of fuel to customer vehicle • Work at height to open the manhole for loading of fuel • Loading of fuels to underground storage tank		*Volatile organic compounds (VOCs) impact on workers*	1. Underground storage tanks to be fitted with respirators or vent lines and have a minimum height of 4 meter above ground level 2. Pressure vacuum vent should be used to avoid continuation of the releasing of gasses from the tanks. 3. Make sure that underground tank seals are kept in good condition and caps are appropriately sealed 4. Ensure that fuel nozzles cut off automatically when tank is full 5. A competent person must remain near the tanker during unloading 6. Regular monitoring and inspect for leaking from pipework, dispensers and tanks, and implementing repairs within predefined period 7. All staff should ensure that dispensers hoses are not laid on the filling area and pump island floor at any time 8. Regularly check the vapour control systems and make sure that they are in good condition 9. Proper PPE should be provided and workers should wear the PPE especially for the activities that generate VOC such as dispensing fuel, loading fuel, etc. 10. Procedure shall be established for fuel quantity check, refilling to storage tank and dispensing to customer vehicle. The procedure shall be provided to the ANPM for review before operational license is granted 11. The procedure shall be affixed in the visible location in the facility and the workers shall be training to understand and follow the procedure 12. Proponent shall ensure the workers carry out the work based on the established procedure 13. Proponent shall assess the risk prior to carry out the activities 14. Maximum supervision from the facility manager on the activities	1. Conduct maintenance to leaking pipework, dispensers, tanks and vapour control system if found damaged and corroded 2. Ensure rotating pumps attendants to prevent them from inhaling fuel vapour (gas) for long time 3. Maximum supervision from the facility manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Do proper record and make it available on site 3. Maximum supervision from the facility manager on the activities

• Over use of electricity components • Electrical components Inspection		*Workers electrical related work accident or incident*	1. Daily Inspection of electrical system 2. Use safe work practices every time electrical equipment is used. 3. Know the location and how to operate shut-off switches and/or circuit breaker panels 4. Prevent the potential for water or chemical spills on or near electrical equipment 5. Proper PPE should be provided and Workers should wear the PPE before carrying out inspection 6. Proponent shall ensure to hire competent and experienced staff to carry out inspection to the electrical system. 7. First aid kit and fire extinguisher suitable for electrical should be provided at the facility 8. Maximum supervision from the facility manager on the activities	1. Cease the operation temporarily when there is electrical accident or incident 2. Treat unserious injury 3. Evacuate serious injured workers to nearest hospital or clinic or contact emergency number for evacuation assistance 4. Maximum supervision from the facility manager on the activities	1. Let the injured victim recover completely before resume to work 2. Compensate the Workers if necessary 3. Claim for insurance for the staff work in the operation of the facility if they are affected 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the activities 7. Maximum supervision from the facility manager on the activities
• Dispensing fuel		*Exposure to extreme heat by workers*	1. Cease the work temporarily when temperature is extremely hot 2. Worker must adjust exposure time until body is acclimated to the heat 3. Workers should take break according to resting schedule 4. Do not ignore possible symptoms of heat stress 5. Use proper PPE before working during extreme heat 6. Water should be provided in the work site 7. Workers should regularly drink water to stay hydrated 8. Notify supervisor of any personal risk factors 9. Maximum supervision from the facility manager on the activities	1. Notify supervisor of any personal risk factors 2. Applied first aid to treat Workers that suffer from unserious heat stress or dehydration 3. Evacuate Workers that suffer from serious or severe heat stress or dehydration to nearest hospital or clinic or contact ambulance for evacuation assistance 4. Maximum supervision from the facility manager in the activities	1. Let the workers fully recover before resume to work 2. Compensate the Workers if necessary 3. Do proper record on the incident including investigation result and make the record available to the ANPM 4. Reassess the existing preventative measures and implement the result 5. Maximum supervision from the facility manager on the activities
• Vehicles movement in and out of the facility		*Traffic jam and traffic accident in the facility*	1. Conduct regular briefing before operation 2. Assigned staff to direct the traffic in the facility during peak hours 3. Display Speed limit sign for costumers vehicles, tankers and motorbike enter and leave the facility at the accessible location 4. Marking parking spot properly for general parking in the facility 5. Parking spot for refuelling at the pump islands should be clear 6. Car washing area should not be inclined to avoid involuntary move by cars that can cause accident or incident in the facility	1. Cease the operation temporarily when there is accident or incident 2. Direct traffic away from the accident spot 3. Apply first aid to treat unserious injured Workers 4. Contact emergency/ evacuate serious injured Workers to nearest hospital or clinic or contact ambulance for evacuation assistance 5. Maximum supervision from the facility manager on the	1. Let the Workers recover completely before resume to work 2. Claim for insurance for the staff work in the operation of the facility if they are affected 3. Do proper record on the incident including investigation result and make the record available to the ANPM 4. Reassess the existing preventative measures

			7. Car wash spot should be located far from the exit and entry gates to avoid traffic jam and accident 8. Assigned staff to direct the cars in car washing area so that the activity does not obstruct the entrance or exit of vehicles for refilling fuel purpose. 9. Safety meeting regular basis 10. Provide emergency contact number in the facility and make staffs aware of it 11. Provide first aid kit in an accessible location and make staffs aware of it 12. Maximum supervision from the facility manager on the activities	activities	and implement the result 5. Ensure that necessary measure is put in place prior to resume the activities 6. Maximum supervision from the facility manager on the activities
• Welding facility's components		*Mechanical work related accident or incident, fire and explosion*	1. Welding within the facility is prohibited at anytime 2. If welding is required, the proponent shall cease the operation of the facility and do proper risk assessment and put in place all required mitigation measures based on the risk assessment result. 3. Safety briefing before carry out any tasks 4. Consult and seek consent from the ANPM prior to carry out welding in the facility and the risk assessment shall be provided to the ANPM 5. ensure to hire competent and experience workers to carry out welding 6. provide appropriate PPE 7. Make sure that fire extinguishers are in operating condition 8. Make sure first aid kit is located in the visible and accessible location	1. Cease the welding if there is any accident or if fire exist 2. Direct traffic away from the accident spot 3. Apply first aid to treat unserious injured Workers 4. Contact emergency/ evacuate serious injured Workers to nearest hospital or clinic or contact ambulance for evacuation assistance 5. Maximum supervision from the facility manager on the activities	1. Let the Workers recover completely before resume to work 2. Claim for insurance for the staff work in the operation of the facility if they are affected 3. Do proper record on the incident including investigation result and make the record available to the ANPM 4. Reassess the existing preventative measures and implement the result 5. Ensure that necessary measure is put in place prior to resume the activities 6. Maximum supervision from the facility manager on the activities
• Unloading of fuels from tankers into storage tanks • Dispensing of fuels from underground storage tanks into vehicles' tank • Leak from dispenser, storage tanks and fuel pipes • Smoking and using cell phone • Electrical failure		*Fire and explosion in the facility impact on workers, costumers and facility*	1. Relevant operational staff must receive training on the correct operation of the storage tanks, as well as maintenance and repair procedures when leaks are detected. 2. Establish procedure for unloading fuels from tankers into underground storage tanks and the procedure should be written on a board and display it close to the unloading of fuel into storage tanks location where the unloader can see and follow 3. Establish procedure for dispensing fuels into vehicles' tanks and it should be written on a board and display it close to each pump islands where the pump attendants can see and follow 4. Work shall be carried out in accordance with the procedure and the operator of the facility shall ensure that the staff understand and work based on the established procedure 5. Establish procedure to deal with spillage from dispensing and loading of fuel activity, pipe leaking, dispenser failure, etc. and shall be made known to workers 6. Establish procedure to response to fire in the facility and	1. Cease the operation temporarily when there is fire in the supporting office, dispensers, pump island and storage tanks areas 2. Activate the plan to response to fire and ensure correct PPE are used when fight the fire. 3. Evacuate Workers and costumers to safe place 4. Switch off the emergency valve 5. Contact emergency number for assistance when the fire is out of control 6. Maximum supervision from the facility manager	1. Investigate the cause of the fire and explosion 2. Compensate costumers if necessary 3. Contact insurance provider to inform the incident and the staff affected 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place

			staff shall be made aware on the procedure 7. Fire and spill drill shall be conducted at least once in every six month to test the procedure and records on drills shall be made available to the ANPM 8. Evacuation rote shall be affixed in the visible location 9. Put sign on prohibition of smoking, using camera, using phone and prohibit to use any of the ignition sources in the fuel dispensing area, underground storage tank area and other area where flammable vapour present. 10. The fuel filling station should be equipped with fire extinguishers should be made available on site and regularly maintained to ensure it is in operating condition. 11. Pump attendants can only begin refilling the vehicle's fuel tank after the engines and ignition sources have been fully cut off and the sign on this shall be posted in the dispensing area. 12. During the bulk fuel delivery, a competent person must be present until the delivery process is completed. Before the delivery process start, buckets of sand and fire extinguishers shall be made easily available and accessible. 13. Before unloading fuel from tanker to the storage tanks, the tanker must parked at the properly marked area and all circulation of people and other vehicles within the area is strictly prohibited and must be prevented. 14. Overfill and spills during tanker refuelling and fuel dispensing should be prevented by the installation of automatic cut off devices. 15. Tanker delivery drivers must be present during delivery of fuel with the emergency cut off switch and a fire extinguisher. 16. A closed coupling must be used when fuel is being transferred from the bulk delivery vehicle to the USTs to prevent fugitive emissions. 17. Staffs should not dispense fuel to costumer's vehicle when they smoke, use cell phone and do not turn off the car's engine 18. All staff should ensure that dispensers' hoses are not laid on the filling area and pump island' floor at any time. 19. Internal visual inspection on pipework, electrical system and dispensers should be regularly conducted for the condition such as leaks, deterioration, and corrosion (for pipework) 20. Inspection shall also be carried out to water treatment system to ensure it is in operating condition 21. Authority should be notifying when there is leak from pipework, dispensers and tanks 22. Operator shall provide proper PPE to the worker 23. Emergency contact No, shall be posted in the facility and All Workers should be made aware of it 24. Proponent shall provide first aid and firefighting training to staff and the copy of the certificate shall be provided to the ANPM 25. Refreshment training shall be provided every two years. 26. Facility electrical system should be equipped and protected with grounding system	on the activities	prior to resume the activities 7. Maximum supervision from the facility manager on the activities

			27. Provide insurance to staff and ensure insurance is continue valid 28. Maximum supervision from the facility manager on the activities		
• Burning houses • Trash burning • Bush fire		*Impact of Fire or/and explosion from surrounding to facility*	1. Notify surrounding community about the hazard of fire to the facility 2. Make sure that community fire is under control 3. Contact fire department when a community house is on fire or fire set up by community is out of control 4. Ask community not to set up fire near the facility 5. Staff should to help the community to fight the fire if required and safe to do so 6. Perform general housekeeping tasks on a regular basis 7. Fire extinguisher should be made available at all the time at the facility, and it shall be in operating condition 8. worker to fight fire be provided with adequate PPE 9. Emergency contact numbers must be made available at facility 10. Ensure all staff are attended refreshment training 11. First aid kits must be made available 12. Ensure all costumers are follow safety procedure 13. Safety sign must be display at facility 14. Practice emergency drill every six months 15. Maximum supervision from the facility manager on the activities	1. Cease the operation temporarily when fire outside of the facility cannot be contained 2. Evacuate serious Workers or costumer suffer from burnt to hospital or clinic 3. Contact emergency number for assistance when the community fire affects the facility 4. Switch off the emergency valve 5. Wear Proper PPE to combat fire 6. Extinguish the fire with proper fire extinguishers right away when there is fire 7. Maximum supervision from the facility manager on the activities	1. Contact insurance provider to inform the incident and the staff affected 2. Do proper record on the incident including investigation result and make the record available to the ANPM 3. Reassess the existing preventative measures and implement the result 4. Ensure that necessary measure is put in place prior to resume the activities 5. Maximum supervision from the facility manager on the activities
• Vehicles movement (Costumers and company's) in and out of facility • Use of backup generator • Waste production and burning	**Social Impact (community health and safety)**	*Dust (particulate matter) and Flue gasses/ exhaust gasses impact on community*	1. Visual inspection should be conducted regularly on the floor for dust 2. Minimize bare surface in the facility area 3. Regular spray dusty area using water to suppress dust from suspend in the air 4. Regularly clean dust of the floor in the facility area 5. All delivery tankers should be adequately maintained to reduce exhaust emissions 6. Establish speed limits to vehicles operate inside and outside the facility to minimize vehicle smoke and dust and the speed limit sign should be temporarily installed in the facility to remind the drivers. 7. Discourage idling of vehicles' engines to reduce exhaust emission 8. Regular maintenance of back-up generator to reduce emission 9. Wastes should not be burnt on sites, but managed and disposed at designated location 10. Proper wastes management sign should be displayed in the facility 11. Maximum supervision from the facility manager on the activities	1. If there is complaint due to dust/flue gas proponent shall resolve the complaint 2. Call police if complaint involved confrontation 3. Maximum supervision from the facility manager on the activities	1. Reassess the existing preventative measures and implement the result. 2. Conduct maintenance to vehicles delivering fuel when they emit gasses too much 3. Maximum supervision from the facility manager on the activities
• Storing fuel in underground storage tanks • Refilling/dispensing of fuel to customer		*Volatile Organic compounds (VOCs) impact on community*	1. Underground storage tanks to be fitted with respirators or vent lines and they are to be fitted such that facing away from the neighbouring residential areas and have a minimum height of 4 meter above ground level 2. Pressure vacuum vent should be used to avoid continuation of the releasing of gasses from the tanks.	1. When there is overfill and vapour starts to spread, immediately cease the operation 2. Activate spill response plan immediately and use	1. Do proper record on the incident including investigation result and make the record available to the ANPM 2. Reassess the existing

vehicle • Loading of fuels to underground storage tank			3. Inspect vent pipe's base for sign of corrosion or damage and conduct maintenance straight away when it is found corroded and damaged 4. Make sure that underground tank seals are kept in good condition and caps are appropriately sealed 5. Establish procedure on dispensing to car and loading of fuel to underground tank, etc 6. The procedure for unloading of fuel from tanker into storage tanks and dispensing of fuel into vehicles' tank shall be posted in the facility 7. Staff shall be made aware on the procedure and ensure they follow the procedure when carry out the work 8. Ensure that fuel nozzles cut off automatically when tank is full 9. A competent person must remain near the tanker during unloading 10. Regular monitoring and inspect pipework, dispensers and tanks to detect leaks and implementing repairs within predefined period 11. Conduct maintenance to leaking pipework, dispenser, tanks and vapour control system if found damaged and corroded 12. Ensure rotating pumps attendants to prevent them from inhaling fuel vapour (gas) for long time 13. All staffs should ensure that dispensers hoses are not laid on the filling area and pump island floor at any time 14. Maximum supervision from the facility manager on the activities	proper PPE 3. Operator must Avoid Breathing in low levels of VOCs for long periods and shall use adequate PPE 4. Maximum supervision from the facility manager on the activities	preventative measures and implement the result 3. Ensure that necessary measure is put in place prior to resume the activities 4. Maximum supervision from the facility manager on the activities
• Vehicles movement (Costumers and company's) in and out of facility • Car washing		*Traffic jam and traffic accident outside the facility (general traffic)*	1. Clear markings to set apart vehicle and pedestrians routes 2. Provide warning signs at all entrances and exits to the site. 3. The entry and exit of vehicles into and from the fuel filling station are made through one-way accesses to avoid traffic jam outside the facility 4. Parking of vehicles in facility's pathway is not permitted 5. Adequate entry of fuel tankers to the area for unloading and allow exit from the fuel filling station into a safe area by moving forward without the need of any manoeuvres to avoid traffic inside and outside the facility 6. Staff should direct the cars not to park in or near the entry and exit gates and should direct car to not obstruct the movement of other vehicle for refuelling fuel 7. Car wash area should not be near the entry and exit access 8. Staffs should direct cars and motorbikes that enter the facility during peak hours 9. Provide designated safe zones for drivers to stand when unloading/loading activity is being undertaken. 10. Dedicated personnel must be presented to manage traffic and pedestrian movements outside facility during peak hour in the facility 11. Manage the work hours and duration for drivers to minimize fatigue. 12. Implement a one-way system to reduce the need for vehicles to reverse on site. 13. Provide sign for safe movement of vehicles and people (pedestrian crossing areas, barriers, safe zones, walkways	1. When there is accident or incident causse by company's vehicles, driver should stop the vehicles and access the accident 2. Apply first aid to treat unserious injured victims 3. Evacuate serious injured people to nearest hospital or clinic or contact emergency number for evacuation assistance 4. Maximum supervision from the facility manager in the activities	1. Provide compensation if necessary 2. Do proper record on the incident including investigation result and make the record available to the ANPM 3. Reassess the existing preventative measures and implement the result 4. Maximum supervision from the facility manager in the activities

			etc.). 14. Make parking spot for costumers should be separated to fuel delivery vehicel's spot 15. Time deliveries for quiet times of the day to reduce the number of people who are likely to be near the vehicle being unloaded. 16. Ensure that the vehicle/driver transporting fuel has emergency contact numbers 17. Operator shall ensure that the driver transporting fuel has the required knowledge on transporting flammable and combustible fuel and ensure that the driver has valid driving license 18. Control company's vehicles driver's attitude about driving 19. Make sure company drivers have first aid certificate 20. Company's driver should obey traffic signs and under no alcohol influence when driving 21. If the company uses is own vehicle to transport fuel, it shall ensure that the facility has the required space for parking the truck. 22. Set speed limit for company's vehicles operate outside the facility 23. Instruct drivers to reduce speed limit when entering and exiting the facility 24. Maximum supervision from the facility manager in the activities		
• Vehicles movement (Costumers and company's) in and out of facility • Unloading of fuel into storage tanks from fuel tankers		*Noise and vibration impact on community*	1. A grievance procedure will be established whereby noise complaints can be received, recorded and responded to appropriately. 2. Noise, especially at night, should be kept to a minimum. 3. Avoid loud background music that are clearly audible away from the forecourt 4. Avoid receiving/unloading fuels to storage tank or other deliveries at night 5. Operation hours should be started in between 7am-9pm to avoid noisy at the facility and surrounding. 6. Display speed limit for vehicles in the facility to reduce noise 7. Conduct monitoring and inspection to company vehicles conditions and maintenance to avoid noise generation 8. Build a wall to insulate the noise from the facility 9. Maximum supervision from the facility manager on the activities	1. Control noise level to not exceed the limit during the day and at night 2. Resolve any complaint from the community 3. Call police if there is confrontation 4. Maximum supervision from the facility manager on the activities	1. Do proper record on the complaint and its resolution, 2. Make sure the record is available to the ANPM 3. Reassess the existing preventative measures and implement the result 4. Maximum supervision from the facility manager on the activities
• Unloading of fuels from tankers into storage tanks • Dispensing of fuels from underground storage tanks into vehicles' tank • Welding • Smoking and using cell		*Impact of fire and explosion in the facility to community and community's houses*	Use the ***prevention action mitigation measures for impact of fire and explosion in the facility on workers, costumers and facility*** in this section to ***prevent impact of fire and explosion in the facility to community and community' houses***	Use the Control ***action mitigation measures for impact of fire and explosion in the facility on workers, costumers and facility*** in this section to ***prevent impact of fire and explosion in the facility to community and community' houses***	Use the Corrective ***action mitigation measures for impact of fire and explosion in the facility on workers, costumers and facility*** in this section to ***prevent impact of fire and explosion in the facility to community and community' houses***

phone • Electrical failure • Leak for dispenser, tanks and pipes					
• Spill of fuels during unloading of fuels from tanker into under storage tanks • Spill of fuel during dispensing of fuels from storage tanks into vehicles tanks' • Leaking of fuels from underground storage tanks • Leaking of fuels from pipework • Poor maintenance of wastewater treatment system, oil traps and catchers • Car washing	**Soil Quality and Water Quality (both groundwater and surface water)**	*Soil, Surface water and Groundwater pollution due to fuels spill and leak*	1. Underground storage tanks must be placed in the concrete retention basin 2. USTs must have corrosion protection and the specification detailing corrosion protection shall be provided to the ANPM before the construction begins 3. Notice/warning signs are posted when fuels are being discharged into storage tanks 4. Spills response material shall be checked and readily available on site 5. Overfill and spills during tanker unloading should be prevented 6. The oil/water separator must be inspected regularly to ensure that it is always functioning. 7. An impermeable surface ground (cemented) at the area dedicated to unloading fuel from tankers into the storage tanks and refuelling area, and allow drainage into the water treatment system 8. Overfill and spills during tanker refuelling and fuel dispensing should be prevented by the installation of automatic cut off devices. 9. The accumulated contents in the oil/water separator must be removed and disposed into appropriate treatment system (absorb into sand dedicated for this purpose) 10. Accidental leaks and spills that may occur on the forecourt must be cleaned immediately using dry sand provided in some removable containers for each of fuel dispenser, which then must be properly disposed 11. For the purpose of detecting leak, the quantities of fuel delivered, stored and dispensed stock are monitored and recorded on daily basis, and records are kept on site 12. Tanker delivery drivers must be present during delivery of fuel with the emergency cut off switch. 13. In the event of the pump dispenser or the hoses being knocked over or ripped off, the fuel supply must be cut off by shear-off valves. 14. Emergency response plan must be in place for the site, which clearly describes the procedures and include emergency contact numbers 15. All forecourt staff must involve in spill drill so that they aware on the procedure to response to spill during fuel dispensing/overfill in storage tanks and others 16. The USTs, pipelines, dispensers and other associated infrastructure must be inspected regularly for leaks and to ensure structural integrity 17. A closed coupling must be used when fuel is being transferred from the bulk delivery vehicle to the USTs. 18. Use monitoring wells to monitor leak in the underground	1. When there leak is found in the pipework, dispensers and underground storage tanks, the operation should be ceased temporarily, and maintenance should conducted prior to resume the operation 2. Activate the spill response plan 3. Authority should be notified when there is leak from pipework, storage tanks and dispenser. 4. Maximum supervision from the facility manager on the activities	1. Remediation must be undertaken when contamination is detected 2. Compensate the workers surrounding community if oil leak from the facility destroy their properties 3. Do proper record on the complaint and its resolution, 4. Make sure the record is available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure has been put in place prior to resume the activities 7. Maximum supervision from the facility manager on the activities

			tanks 19. All staff should ensure that dispensers hoses are not laid on the filling area and pump island floor at any time 20. Water from carwash area must be directed to proper drainage system 21. All the exposed pipework and other fitting (i.e., valves and bolts) should be visually inspected regularly for sign damages, leaks, deterioration or corrosion 22. Pipework should be tested for leakage before using for the operation 23. Underground pipework's connection and joints chamber should be installed for the inspection and maintenance. (Note: this would depend on the types pipe that is going to be used) 24. Make sure pipework joint's chambers have proper fitting lead to prevent ingress of water and other substance (Note: this would depend on the above mitigation measure) 25. Area within the facility should be cemented, unless it is advised otherwise by the authority 26. Provide appropriate drainage system to manage surface runoff 27. Adequate entry of fuel tankers to the area for unloading and allow exit from the fuel filling station into safe area by moving forward without the need of any manoeuvres 28. Procedure for unloading fuels from tankers into underground storage tanks should be written on a board and display close to the unloading of fuel into storage tanks location where the unloader can see and follow 29. Procedure for dispensing fuels into vehicles' tanks should be written on a board and display close to each pump islands where the pump attendants can see and follow 30. A competent person must remain near the tankers during unloading 31. Regularly use monitoring well for the inspection of leak from underground tank, 32. Update fuel stock inventory regularly 33. Provide basic clean up material 34. Maximum supervision from the facility manager on the activities		
• Spill or leak • Fire or/and explosion	**Ecology impact**	*Spill or leak and fired or explosion impact on vegetation and animals*	1. Use Preventive Mitigation Measures Action for soil, surface water and groundwater pollution for this section to prevent spill or leak 2. Use Preventive Mitigation Measures Action re or/and explosion on Workers' Occupational Health and Safety in this section for preventing fire or/and explosion	1. Use Controlling and Responding Mitigation Measures Action for soil, surface water and groundwater pollution for controlling and responding spill or leak in this section 2. Use Controlling and Responding Mitigation Measures Action for fire or/and explosion on Workers' Occupational Health and Safety in this section for controlling fire or/and explosion	1. Use Corrective Mitigation Measures Action for soil, surface water and groundwater pollution for this section to prevent spill or leak as corrective action for this section 2. Use Corrective Mitigation Measures Action for fire or/and explosion on Workers' Occupational Health and Safety, as corrective action for this section

• *Fire and explosion, and Spill or leak during operation* • *Waste production and burning*	**Economic and agricultural impact**	• *Fire and explosion, and Spill or leak impact on economic activities (kiosks, market, shops and agricultur e activities)* • *Wastes*	1. Only allow experience do perform the maintenance 2. Proper procedure and preparation in case any maintenance is required 3. Prepare and provide firefighting equipment and first aid kit 4. Provide training to staff and refreshment training 5. Procedure for fire and spill response and other emergency response 6. Test the procedure by conduction drills once in every six months 7. Work procedure shall be established and make sure staff follow the procedure when working 8. Affix working procedure and fire and spill procedure in the facility 9. Provide firefighting and first aid training to the staff and ensure staff with firefighting and first aid knowledge to present in the facility during working hours 10. Spill or leakage of oil and lubricants should be cleaned promptly and should be disposed of in designated location 11. Waste should be managed properly and disposed of at the designated location 12. Provided emergency contact number in the facility and make worker aware of it 13. Maximum supervision from facility manager on the activities	1. Cease the activities temporarily when there is fire and complaint on wastes 2. If fire/spill occur, activate fire/spill response plan 3. Contact fire departments for assistance when fire is out control and start affecting kiosks or shops or market 4. spill or leakage of oil and lubricants should be cleaned promptly and should be disposed of in designated location 5. Contact fire department when spill or leak affecting agricultural land or other property 6. Clean the wastes and dispose it at designated location 7. Maximum supervision from facility manager on the activities	1. Investigate the cause of fire or/and explosion, spill or leaks 2. Compensate the affected people if necessary 3. Contact insurance provider to inform the incident and the staff affected 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the activities 7. Maximum supervision from facility manager on the activities

MAINTENANCE

Activities	Impacts	Parameter / particular concerns	Preventive action	Control and responding action	Corrective action
• Vehicles movements (in and out of the facility) • Concrete mixture for floor, wall and other infrastructures in the facility maintenances • Use of machineries for maintenance • Use of backup generator to support maintenance • Waster production and burning	**Air quality**	*Dust (particulate matter) impact and Flue gasses/ exhaust gasses impact on air quality*	1. Clean the floor area from dust 2. Regular spray dusty area using water to suppress dust from suspend in the air 3. Regular maintenance for vehicles, equipment and back-up generator to avoid emission into air 4. Turn off unnecessary idling engines of vehicles and equipment 5. Turn off unneeded back-up generator 6. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers. 7. Reduce vehicles speed in the facility to minimize flue gasses emission and dust suspension 8. Wastes should not be burnt onsite, but managed properly and disposed of at the designated location 9. Proper wastes management sign should be displayed in the facility 10. Maximum supervision from the project or facility manager on the activities	1. Stop using generator, vehicles and equipment that emit flue gasses too much 2. Clean the wastes and dispose at the designated location 3. Maximum supervision from the project or facility manager on the activities	1. Conduct maintenance to equipment, vehicle and generator that emits flue gasses 2. Remind the drivers to drive according to the established speed limit 3. Remind workers to manage and dispose the wastes of at the designate location 4. Reassess the existing preventative measures and implement the result 5. Maximum supervision from the project or facility manager on the activities
• Dispenser, pipework and underground storage tanks maintenance		*Volatile Organic compounds impact on air quality*	1. The release of the volatile organic carbon cannot be prevented during maintenance 2. Company shall cease the operation of the facility before carry out maintenance of Underground storage tank, fuel pipes and dispensers	1. The release of the volatile organic carbon cannot be prevented during maintenance	1. The release of the volatile organic carbon cannot be prevented during maintenance
• Vehicles movements (in and out of the facility) • Concrete mixture floor, wall, pump island maintenances • Waste production and burning	**Workers' Occupational health and Safety (OHS)**	*Dust and flue gasses (particulate matter) and flue gasses impact on Workers*	1. Clean the floor area from dust 2. Regular spray dusty area using water to suppress dust from suspend in the air 3. Limit vehicle speeds onsite to minimize dust and flue gasses generation and safety briefing to continue remind driver to limit vehicle speed 4. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers. 5. Prepare and provide proper PPE to Workers 6. If possible install fence to contain dust in the work area 7. Stop using too much flue gasses emitter vehicles and machineries 8. Conduct regular maintenance to flue gasses emitter vehicles and machineries 9. Wastes should not be burnt in the facility but should managed and disposed at the designated location 10. Remind workers to manage and dispose the wastes of at the designated location 11. Proper wastes management sign should be displayed in the facility 12. Maximum supervision from the project or facility manager on the activities	1. Stop using too much flue gasses emitter vehicles and machineries 2. Clean the wastes and dispose at the designated location 3. Maximum supervision from the project or facility manager on the activities	1. Conduct regular maintenance to flue gasses emitter vehicles and machineries 2. Reassess the existing preventative measures and implement the result 3. Maximum supervision from the project or facility manager on the activities
		Noise and vibration	1. Work should occur during day hours only between 08:00Am-5:00Pm, on week days only.	1. Stop the maintenance if the activities cause too much	1. Check the

		impacts to community	2. Worker should wear the appropriate PPE, if and when required. 3. Take turn when operating noise machineries and rest accordingly 4. Mechanical equipment with lower sound power levels will be selected to ensure that the permissible occupation noise-rating limit of 85 dBA is not exceeded. 5. Control noise level should not exceed maximum permissible limit 6. All equipment to be adequately maintained and kept in good working order to reduce noise. 7. All noise generating equipment should be insulated and well maintained to ensure that they operate within the noise limits they were designed to operate 8. Make sure only maintenance workers are at the noisy area 9. Maximum supervision from the project or facility manager on the activities	noise beyond maximum limit. 2. Maximum supervision from the project or facility manager on the activities	equipment/vehicle/ generator that cause too much noise 2. Resume the activities if the issue has been solved. 3. Reassess the existing preventative measures and implement the result 4. Maximum supervision from the project or facility manager on the activities
		Traffic jam and accident or incident inside the facility	1. Display speed limit sign in the facility 2. Staff should direct vehicles enter the facility properly 3. Staff should instruct drivers not to park vehicles in the entry and exit gates 4. Clearly marking the maintenance sites 5. Barricade the maintenance sites 6. Provide PPE in the facility 7. Provide first aid kits in the facility 8. Operator shall ensure that staff with first aid knowledge shall be present in the facility 9. Provide emergency contact number in the facility and make workers aware of it 10. Maximum supervision from the project or facility manager on the activities	1. Assign staff to smoothen the traffic in out of the facility 2. Cease the work temporary if there is accident or incident 3. Apply first aid to treat unserious injured workers 4. Evacuate serious injured workers to nearest hospital or clinic or contact emergency number for evacuation assistance 5. Maximum supervision from project or facility manager on the activities	1. Investigate cause of the accident or incident 2. Let the workers recover properly before resume to work 3. Compensate the worker if necessary 4. Reassess the existing preventative measures and implement the result 5. Maximum supervision from the project or facility manager on the activities
• Underground storage tanks maintenance • Fuel pipes Maintenance • Dispensers maintenance		*Workers Accident or incident(injuries)*	1. Barricade the maintenance site 2. Company shall cease the operation of the facility when carry out maintenance on the Underground storage tank, fuel pipes and dispensers 3. Company should only allow experienced and competent staffs or consultants to do the maintenance on underground tanks, dispensers and pipes 4. The operator shall notify the ANPM prior to carry out maintenance to underground tanks, pipes and dispenser including information on the consultant's experience/competence and maintenance procedures 5. Proper PPE should be worn before carrying out activities including cleaning the underground storage tanks 6. Maintenance workers should be in good condition and under no alcohol influence when carry out maintenance 7. Only allow trained and experienced workers to access into underground storage tanks for inspection and maintenance 8. Carry out maintenance according to the specification recommendation and procedure 9. Emergency contact numbers should be provided in the facility and make the Workers aware of it	1. Cease the work temporarily when there is accident or incident 2. Evacuate injured to safe place 3. Apply first aid to treat unserious injured workers 4. Evacuate serious injured workers to nearest hospital or clinic or contact emergency number for evacuation assistance 5. Notify the ANPM on the incident 6. Maximum supervision from the project or facility manager on the activities and injured Workers	1. Investigate the cause of the accident or incident 2. Let the Workers or consultant recover properly before resume to work 3. Compensate the Workers if necessary 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the activities 7. Maximum supervision from the project or facility

			10. Provide first aid kit in an accessible location in the facility 11. Inspections on the underground tanks fuel pipes and dispensers' condition should be recorded and made available to relevant authority up on request 12. All the record of maintenance and repair of underground storage tanks should be made available on site for external audit purpose if requested by the authority. 13. Make sure to work in a team of two or more 14. Operator shall ensure that staff with first aid and firefighting knowledge and skill shall be presented in the facility during maintenance of these equipment 15. Maximum supervision from the project or facility manager on the activities		manager on the activities and injured Workers
		Exposure to extreme heat during maintenance of the underground storage tanks, fuel pipe and dispensers	1. Proper PPE should be provided the company 2. Proper PPE should be worn before carrying out maintenance 3. Cease the work when temperature is extremely hot 4. Water or other alterative drink for hydration should prepared 5. Worker should drink water or other alternative drink regular to stay hydrated 6. First aid kit should be prepare and located in accessible place 7. Operator shall ensure that one staff with first aid knowledge and skill to present in the site during maintenance activities 8. Operator shall ensure that to hire competent and knowledge consultant to carry out maintenance and ensure the maintenance is carried out based on procedure 9. Emergency contact number should be provided and Workers should be made aware of it 10. Make sure to work in a team of two or more 11. Maximum supervision from the project or facility manager on the activities	1. Cease the work temporarily when there is accident or incident 2. Evacuate injured worker to safe place 3. Apply first aid to treat unserious dehydrated and heat stress Workers 4. Apply first aid and Evacuate serious dehydrated or/and heat stress workers to nearest hospital or clinic or contact emergency number for evacuation assistance 5. Maximum supervision from the project or facility manager on the activities and injured workers	1. Investigate the cause of the accident or incident 2. Let the workers or consultant recover properly before resume to work 3. Compensate the workers if necessary 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the maintenance activities 7. Maximum supervision from the project or facility manager on the activities and injured workers
		Volatile Organic compounds underground storage tanks, fuel pipe and dispenser	1. Make sure underground storage tanks, pipe and dispenser are empty before carrying out maintenance 2. Make sure that underground storage tanks, pipe and dispenser are free of VOCs before carrying out maintenance 3. VOC cleaning shall follow procedure and it shall be performed by competent and experienced worker 4. Check with VOC detection equipment to ensure VOC has been fully cleaned prior to carry out maintenance 5. Only allow trained or/and experienced workers to carry out maintenance 6. Company should provide proper PPE 7. Make sure proper PPE is worn before access into underground storage tanks 8. Make sure to work in a team of two or more when cleaning underground storage tanks 9. First aid kit should be provided by the company in an	1. Cease the activities right away temporarily when Volatile Organic carbon is still present in the underground storage tanks, fuel pipe and dispensers 2. Apply first aid to workers who suffer from VOCs or/and contact emergency number for evacuation 3. Maximum supervision from the project or facility manager on the activities	1. Let the workers recover properly before resume to work 2. Compensate the workers if necessary 3. Do proper record on the incident including investigation result and make the record available to the ANPM 4. Reassess the existing preventative measures and implement the result 5. Ensure that necessary measure is put in place prior to resume the maintenance activities

			accessible location 10. Operator shall ensure that one staff with first aid knowledge to present in the site during maintenance activities 11. Maximum supervision from the project or facility manager on the activities		6. Maximum supervision from the project or facility manager on the activities
		Fire and explosion during underground storage tanks, fuel pipe and dispensers maintenances	1. Company shall cease the operation of the facility when carry out maintenance of Underground storage tank, fuel pipes and dispensers 2. The operator shall notify the ANPM prior to carry out maintenance to underground tanks, pipes and dispenser including information on the consultant's experience/competence and maintenance procedures 3. Make sure that underground storage tanks, fuel pipes and dispensers are safe before carrying out maintenance 4. Maintenance, modifications and repairs to storage tanks, dispensers and fuel pipes should be carried out only by experienced workers 5. Operator shall ensure that the maintenance is carried out based on procedure 6. Ensure first aid kit and fire extinguishers are in accessible location 7. Operator shall ensure that staff with first aid and firefighting knowledge shall be present in the facility during maintenance of these equipment 8. Make sure that there is no accumulated gas in the tanks or fuel pipes or outside of the tank and fuel pipes before carrying out maintenance 9. Avoid smoking while carrying out maintenance 10. Disconnect electrical system connect to storage tanks and dispenser before carrying out maintenance 11. Maintenance signage should be displayed before carrying out the activities 12. Restrict vehicles from entering the facility during maintenance 13. Barricade the maintenance site 14. PPE should be worn when carry out maintenances 15. Do risk assessment prior to carry out any welding in the facility and the operator shall notify the ANPM prior to carry out welding activity 16. Provide emergency contact numbers and make workers aware of it 17. The record for any work carried out on pipework should include the inspection on the pipework as well 18. Do not allow damaged dispensers to be used/activated 19. Control ignition sources in hazardous area. 20. Staffs should not activate dispensers when potential ignition sources are present.	1. Cease the activities temporarily when there is accumulated gasses in or/and outside the tanks and in fuel pipes 2. Cease the activities temporarily when there is fire 3. Activate fire response plan 4. Call for assistance if fire is out of controlled 5. Evacuate injured workers to safe area 6. Apply first aid to unserious injured workers 7. Evacuate serious injured workers to nearest hospital or clinic or contact emergency number for evacuation assistance 8. Notify the ANPM 9. Maximum supervision from project or facility manager on the activities	1. Investigate source of the fire 2. Let the workers or consultant fully recover before resume the work 3. Compensate the workers if necessary 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the maintenance activities 7. Maximum supervision from the project or facility manager on the activities

			21. After maintenance, dispensers should be tested before use for operation and operator shall notify the ANPM for verification and calibration 22. Dispenser should be calibrated according to specification recommendation and only by authorised authority 23. Inspection to pipes and dispensers should be conducted regularly for leaks and deterioration 24. Keep a record of any work carried out on fuel pipe, storage tanks and dispensers 25. Make sure to work in a team of two or more 26. Maximum supervision from the project or facility manager on the activities		
• Canopy, fence, floor and/or, supporting office • Work at height		*Accident or incident related to maintenance*	1. Maintenance should be carried out by trained and experienced workers or contractor 2. If the maintenance involved welding, the operator shall cease the operation of the facility 3. Do risk assessment and put in place the measures prior to carry out welding in the facility. 4. Proper and adequate PPE should be used before maintenance activities 5. Develop and implement plans for maintenance of the facility 6. Barriers and guards as necessary to protect employees, and visitors from physical hazards. 7. Safety Signs are required to be in place during maintenance activities. 8. Establish an environmental record keeping system. 9. Ensure that activities should be stopped when canopy is under maintenance 10. Ensure that barricade is used to prevent people entering the pump islands when canopy is under maintenance 11. Barricade should be used around floor maintenance site's; the same to walls and fences 12. Signage should display when carry out any maintenances in the facility 13. Working at height should in a team of two or more 14. Make sure working at height apparatus are worn before start working, 15. Ensure structure for working at height are installed before start working 16. Maximum supervision from project or facility manager on the activities	1. Cease the work temporary if there is accident or incident 2. Apply first aid to treat unserious injured workers 3. Evacuate serious injured workers to nearest hospital or clinic or contact emergency number for evacuation assistance 4. Notify the ANPM 5. Maximum supervision from project or facility manager on the activities	1. Investigate cause of the accident or incident 2. Let the workers recover properly before resume to work 3. Compensate the work if necessary 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the maintenance activities 7. Maximum supervision from the project or facility manager on the activities
		Exposure to extreme heat	1. Cease the work temporarily when temperature is extremely hot 2. Workers must adjust exposure until body is acclimated to the heat 3. Workers should take break according to working schedule 4. Do not ignore possible symptoms of heat stress 5. Use proper and adequate PPE 6. Water should be provided in the work site 7. Workers should regularly drink water to stay hydrated 8. Make sure to work in a team of two or more 9. Provide first aid kit in accessible location 10. Operator shall ensure that staff with first aid knowledge	1. Notify supervisor of any personal risk factors 2. Applied first aid to treat workers that suffer from unserious heat stress or dehydration 3. Evacuate workers that suffer from serious heat stress or dehydration to nearest hospital or clinic or contact emergency number for evacuation assistance	1. Let the worked fully recover before resume to work 2. Compensate the workers if necessary 3. Do proper record on the incident including investigation result and make the record available to the ANPM 4. Reassess the existing preventative measures

			shall be present in the facility during maintenance of these equipment 11. Maximum supervision from the project or facility manager on the activities	4. Maximum supervision from the project or facility manager on the activities	and implement the result 5. Ensure that necessary measure is put in place prior to resume the maintenance activities 6. Maximum supervision from the project or facility manager on the activities
• Electrical system maintenance		*Electrical related work accident or incident injuries*	1. Company should only allow competent and experienced Workers or contractor to do the maintenance to electrical system 2. The operator shall cease the operation of the facility prior to carry out maintenance of electrical system 3. Disconnect part of the electrical system that need to undergo maintenance from the main circuit before carrying out the activities 4. Make sure to reuse electricity only after the maintenance is done 5. Make plan not to use of electricity when electrical components are under maintenance 6. Proper PPE should be worn before carrying out maintenance activities 7. Maintenance activities should done in a team 8. Emergency contact number should be provided and make workers aware of it 9. Provide first aid kit and fire extinguishers in accessible location 10. Operator shall ensure that staff with first aid and firefighting knowledge shall be present in the facility during maintenance of these equipment 11. Make sure to work in a team or two or more 12. Maximum supervision from project or facility manager on the activities	1. Cease the activities temporarily when there is accident or incident related to electricity 2. Evacuate workers or contactor to safe place 3. Apply first aid to treat unserious incurred workers or contractor 4. Evacuate serious injured workers or contractor to nearest hospital or clinic or contact emergency number for evacuate assistance 5. Maximum supervision from project or facility manager on the activities	1. Investigate the cause of the accident or incident 2. Let the worked fully recover before resume to work 3. Compensate the workers if necessary 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the maintenance activities 7. Maximum supervision from the project or facility manager on the activities
		Electrical related Fire risk and explosion accident or incident	1. Company should only allow experienced Workers or contractor to do the maintenance to electricity 2. The operator shall cease the operation of the facility prior to carry out maintenance of electrical system 3. Disconnect part of the electrical system that need to undergo maintenance from the main circuit before carrying out the activities 4. Make plan to minimise the use of electricity when electrical components are under maintenance 5. Proper PPE should be worn before carrying out maintenance activities 6. Ensure the worker know the location and how to operate shut-off switches and/or circuit breaker panels 7. Minimize the potential for water or chemical spills on or near electrical equipment. 8. Test the electrical system before using it 9. Make sure to use electricity only after the maintenance is done 10. Provide first aid kit and fire extinguishers in accessible location 11. Operator shall ensure that staff with first aid and	1. Cease the activities temporarily when there is fire 2. Activate fire response plan 3. Call for assistance if fire is out of controlled 4. Evacuate workers or contractor to safe place 5. Apply first aid to unserious injured workers or contractor 6. Evacuate serious injured workers contractor to nearest hospital or clinic 7. Notify the ANPM 8. Maximum supervision from project or facility manager on the activities	1. Investigate the cause of the fire 2. Let the workers recover completely before resume to work 3. Compensate the workers if necessary 4. Do proper record on the incident including investigation result and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the maintenance activities 7. Maximum supervision from project or facility

			firefighting knowledge shall be present in the facility during maintenance of these equipment 12. Make sure to work in a team of two or more 13. Maximum supervision from project or facility manager on the activities		manager on the activities
• Vehicles movements (in and out of the facility) • Concrete mixture for floor, wall and other infrastructure maintenances • Vehicles movements (in and out of the facility) • Use of machineries • Use of backup generator • Wastes production and burning	**Social Impact (community health and safety impact)**	*Dust (particulate matter) impact on surrounding community Flue gasses/ exhaust gasses impact on community*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers. 3. Make sure that dusty floor in the facility is regularly cleaned to avoid accumulation of dust 4. Concrete mixture should be properly done to avoid cement powder from carrying by the wind, particularly during windy day 5. Stop using out of control flue gasses emitters such as vehicles, machineries and generator 6. Regular maintenance for vehicles and equipment to avoid gasses emission 7. Turn off unnecessary idling of vehicles engines and machineries 8. Regular maintenance for back-up generator 9. Wastes should not be burnt in the facility, but managed properly and disposed of at designated location 10. Soil from underground tank excavation should be properly manage and dispose in the designated location 11. Proper wastes management sign should be displayed in the facility 12. Suspend the work when during windy day 13. Remind the drivers to drive not over the established speed limit 14. Remind the workers to managed and dispose wastes of at the designated location 15. Maximum supervision from the project or facility manager on the activities	1. When there is complaint from the surrounding community cease the work temporarily 2. Resolve to complaint before resume the activities 3. Contact emergency number if there is physical confrontation involved during complaint 4. Clean the wastes and dispose of the at the designated location 5. Maximum supervision from the project or facility manager on the activities	1. Let the police investigate people who involve in physical confrontation 2. Do proper record on the incident including investigation result and make the record available to the ANPM 3. Reassess the existing preventative measures and implement the result 4. Ensure that necessary measure is put in place prior to resume the maintenance activities 5. Maximum supervision from the project or facility manager on the activities
• Vehicles movements (in and out of the facility) • Movement of people outside the facility		*Traffic jam and accident outside of the facility (general traffic)*	1. Clear markings to set apart vehicle and pedestrians routes; 2. Dedicated personnel must be presented to manage traffic and pedestrian movements outside the facility. 3. Ensure that company's drivers are competent to operate the vehicles safely outside the facility. 4. Operator shall ensure the driver have valid driving license to drive fuel tank truck. 5. Provide warning signs at all entrances and exits when carry out maintenance activities. 6. Provide sign for safe movement of vehicles and people (pedestrian crossing areas, barriers, safe zones, walkways etc.). 7. Introduce a speed limit to companies driver operate outside the facility. 8. Company's driver should follow all the traffic signs on the road 9. Driver operate companies vehicles outside the facility in	1. Driver should follow traffic signs or/and police instruction to avoid causing traffic jam 2. After traffic accident or incident, driver should stop the vehicle to assess the accident or incident 3. Apply first aid to unserious injured victim 4. Evacuate the serious injured victim to nearest hospital or clinic or call emergency number for evacuation assistance 5. Maximum supervision from project or facility manager on the activities	1. Let the police investigate the accident on incident 2. Compensate the victim if necessary 3. Do proper record on the incident including investigation result and make the record available to the ANPM 4. Reassess the existing preventative measures and implement the result 5. Maximum supervision from the project or facility manager on the activities

			any circumstances should under no alcohol influence 10. Provide emergency contact numbers in the vehicles and drivers should be made to aware of emergency contact number 11. First aid kit should be made available in the vehicles operating outside the facility 12. Driver should be trained to use first aid kit and have training certificate 13. Maximum supervision from facility manager on the activities		
• Vehicles movement (in and out of the facility) • Conduct Maintenance to underground storage tanks, fuel pipes, canopy, fences, wall, floor and supporting office		*Noise and vibration impact on the community*	1. Notify the surrounding community on the maintenance plan and noise impact of the maintenance activities 2. Carry out the maintenance activities during working hours only 3. Make sure that noise produce during the maintenance does not exceed the maximum standard 4. Recommend to use low noise and vibration equipment during maintenance activities 5. Maximum supervision from the project or facility manager on the activities	1. Cease the activities temporarily when there is complaint from the surrounding community 2. Resolve the complaint before resume the work 3. Contact the police if there is physical confrontation involved during the complaint 4. Maximum supervision from the project or facility manager on the activities	1. Let police investigate people who involve in confrontation 2. Investigate if there is damage to community property cause by the vibration during maintenance activities 3. Compensate if vibration produce during the activities destroy community's property 4. Do proper record on the complaint including its resolution and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the maintenance activities 7. Maximum supervision from the project or facility manager on the activities
• Conduct Maintenance to underground storage tanks, dispensers, fuel pipes, canopy, floor and supporting office • Conduct maintenance to electrical system		*Risk of fire and/or explosion impact to community*	1. Apply prevention action mitigation measures from conduct maintenance to underground storage tanks, fuel pipes, dispensers and electrical system maintenance to prevent fire and/or explosion that have potential impact on community surrounding facility	1. Apply control and respond action mitigation measures from conduct maintenance to underground storage tanks, fuel pipes, dispensers and electrical system maintenance to prevent fire and/or explosion that have potential impact on community surrounding the facility	1. Apply corrective action mitigation measures from conduct maintenance to underground storage tanks, fuel pipes, dispensers and electrical system maintenance to prevent fire and/or explosion that have potential impact on community surrounding facility
• Maintenance activity to underground storage tanks • Maintenance activity to pipework	**Soil quality, Water quality (both groundwater and surface water)**	*Soil, surface water and groundwater pollution due to fuels spill and leak*	1. Only allow competent Workers or contractor to clean petroleum sludge at the bottom of the storage tanks 2. Procedure on tank, pipework and dispensers maintenance shall be established and submit to the ANPM 3. Operator shall ensure that the work is carried out based on procedure 4. Make sure that tanks are empty, fuel pipe are free of fuels, and dispensers are empty of fuels before carrying out	1. Stop the maintenance activities if leak is detected 2. Promptly clean the accidental spill or leak from underground storage tanks, fuel pipes and dispenser based on the established procedure 3. Dispose the waste in designate	1. Notify environmental authority for any contamination 2. Remediation must be undertaken when contamination is detected 3. Do proper record and make the record available to

• Maintenance activity to dispenser • Maintenance activity to wastewater treatment system			maintenance 5. Any accidental spill or leakage of substances (e.g. oil and lubricants) has to be cleaned promptly using proper procedure and equipment and should be disposed of at the designated location 6. Operator shall ensure that spill response equipment is make available on site during maintenance activities 7. Relevant authority should be notified before carrying out tanks cleaning activities 8. Maximum supervision from project or facility manager on the activities	location 4. Maximum supervision from project or facility manager on the activities and pollution	the ANPM 4. Reassess the existing preventative measures and implement the result 5. Ensure that necessary measure is put in place prior to resume the maintenance activities 6. Maximum supervision from the project or facility manager on the activities
		Petroleum slugged from the underground storage tanks	1. Only allow competent Workers or contractor to clean petroleum sludge at the bottom of the storage tanks 2. Petroleum sludge at the bottom of the storage tanks should be collected carefully and dispose at the proper or/and designated location 3. Oil in the water treatment system should be removed and water should be drained before carrying out maintenance to water treatment system 4. Oil from water treatment should be disposed of at the proper or/and designated location 5. Spill response equipment shall be made available on site 6. Maximum supervision from project or facility manager on the activities	1. Stop the activity and promptly cleaning the petroleum sludge using proper cleaning method when it spills or leak 2. Maximum supervision from project or facility manager on the activities	1. Notify environmental authority for any contamination 2. Remediation must be undertaken when contamination is detected 3. Do proper record and make the record available to the ANPM 4. Reassess the existing preventative measures and implement the result 5. Ensure that necessary measure is put in place prior to resume the maintenance activities 6. Maximum supervision from the project or facility manager on the activities
• Spill or leak during maintenance • Fire or explosion during maintenance	**Ecology impact**	*Impact of leak (or spill) and fire (or/and explosion on Vegetation and animals*	1. Only allow competent Workers or contractor to clean petroleum sludge at the bottom of the storage tanks 2. Operator shall ensure that maintenance is carried out based on the established procedure 3. Petroleum sludge at the bottom of the storage tanks should be collected carefully and dispose at the proper or/and designated location 4. Make sure that tanks are empty, fuel pipe are free of fuels, and dispensers are empty of fuels before carrying out maintenance 5. Oils in the water treatment system should be removed and water should be drained before carrying out maintenance to water treatment system 6. Prepare and provide fire fighting equipment during maintenance 7. Spill response equipment shall be made available on site 8. Maximum supervision from project or facility manager on the activities	1. Stop the activity and promptly clean the accidental spill or leak from underground storage tanks, fuel pipes and dispenser based on the established procedure 2. Dispose the wastes in designate location 3. If fire is detected, control fire based on fire response plan. 4. Contact fire department for assistance when fire is out of control 5. Maximum supervision from project or facility manager on the activities and pollution	1. Investigate the cause of leak (or spill) and fire (or/and explosion) 2. Notify environmental authority for any contamination 3. Remediation must be undertaken when contamination is detected 4. Do proper record and make the record available to the ANPM 5. Reassess the existing preventative measures and implement the result 6. Ensure that necessary measure is put in place prior to resume the maintenance activities 7. Maximum supervision from the project or facility manager on the activities
• Fire and explosion, and Spill or leak	**Economic and**	• *Fire and explosion,*	1. Operator shall notify the ANPM and Maintenance procedure shall be established and made available to the	1. Cease the activities temporarily if spill/fire is detected	1. Investigate the cause of fire or/and explosion, spill or

during maintenance • Waste production and burning	**agricultural impact**	*and Spill or leak impact on economic activities (kiosks, market, shops and agriculture activities)* • *Wastes on agricultural land*	ANPM 2. Only allow experience do perform the maintenance 3. Make sure storage tanks, fuel pipes and dispenser are free of fuel prior to perform maintenance 4. Procedure for fire and spill response shall be established 5. Prepare and provide firefighting and spill response equipment based on the established procedure 6. Fire and spill drills shall be conducted to test the procedure and ensure prompt response 7. Wastes should not be burnt onsite 8. Wastes should be managed properly and disposed of at the designated location 9. Provided emergency contact number in the facility and make worker aware of it 10. Maximum supervision from project or facility manager on the activities	2. Immediately clean the accidental spill or leak from underground storage tanks, fuel pipes and dispenser based on the established procedure 3. Combat the fire based on the established fire response plan 4. Contact fire departments for assistance when fire is out control and start affecting kiosks or shops or market 5. Spillage or leakage of oil and lubricants should be cleaned and disposed of at designated location 6. Contact fire department when spill or leak affect agricultural land or other property 7. Maximum supervision from project or facility manager on the activities	leaks 2. Compensate the affected people if necessary 3. Do proper record and make the record available to the ANPM 4. Reassess the existing preventative measures and implement the result 5. Ensure that necessary measure is put in place prior to resume the maintenance activities 6. Maximum supervision from project or facility manager on the activities

DECOMMISIONING

Activities	Impacts	Parameter/ particular concerns	Preventive action	Control and responding action	Corrective action
• Vehicles movements (in and out of the project area or facility) • Demolition of the facility • Use of heavy machinery • Wastes production and burning	Air quality	*Dust (particulate matter) and Flue gasses/ exhaust gasses impact on air quality*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Build fence around the decommissioning site to contain dust if necessary 3. Reduce vehicles speed and movement in the demolition area 4. Regular maintenance for construction vehicles and equipment to avoid emission to the air 5. Turn off idling of vehicles and machineries' engines 6. Stop using out of control flue gasses emitter vehicles and heavy machineries 7. Stop the work if it is windy 8. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project area to remind the drivers 9. Turn off the unnecessary idling engines of vehicles and machineries 10. Remind the drivers to not drive over the established speed limit 11. Remind the workers to managed and dispose wastes at the designated location 12. Wastes should not be burnt in the project area or facility, but managed properly and disposed of at designated location 13. Proper wastes management sign should be displayed in the project area or facility 14. Maximum supervision from the project or facility manager on the activities	1. Cease the work temporarily if it generates a lot of dust 2. Stop using vehicles and machineries that emit flue gasses too much 3. Any complaints received from neighbours must be reported to proponent and measures must be taken to limit dust 4. Maximum supervision from the project or facility manager on the activities	1. Re planting trees or/and grasses after the decommissioning activities 2. Reassess the existing preventative measures and implement the result 3. Conduct maintenance to construction's equipment and vehicles when they emit gasses too much 4. Ensure that necessary measure has been put in place prior to resume the activities 5. Maximum supervision from the project or facility manager on the activities
• Vehicles movements (in and out of the project or facility) • Use of heavy machinery • Demolition of the facility • Wastes production and burning	Occupational health and Safety (OHS)	*Dust (particulate matter) and Flue gasses/ exhaust gasses impact on workers*	1. Regularly wetting the dusty are to suppress durst from suspended in the air 2. Introduce speed limit to vehicles entering and exiting the site 3. Regular maintenance for decommissioning vehicles and equipment to avoid emission to the air 4. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers 5. Turn of the unnecessary idling engines of vehicles and machineries 6. Prepared and provide PPE to all Workers involve in decommissioning activities 7. Remind the drivers to not drive over the established speed limit 8. Remind the workers to managed and dispose wastes at the designated location 9. Notify drivers to reduce speed when entering and exiting the site 10. Wastes should not be burnt onsite, but managed and disposed of at the designated location 11. Proper wastes management sign should be displayed in the project area or facility 12. Maximum supervision from project or facility manager in the activities	1. Cease the work temporarily if it generates a lot of dust 2. Stop using vehicles and machineries that emit flue gasses too much 3. Maximum supervision from the project manager on the activities	1. Proper maintenance of the heavy machinery engine and vehicles 2. Reassess the existing preventative measures and implement the result 3. Ensure that necessary measure has been put in place prior to resume the activities 4. Maximum supervision from the project manager on the activities

• Pipe and underground Storage Cleaning		*Volatile organic compounds (VOCs) impact on workers*	1. Make sure that storage tanks are completely empty and free of VOCs before lifting it out from the retention basin 2. Make sure that fuel pipes are drained properly and free of VOCs before disconnecting it from underground tanks and dispensers and taking it out from its channel 3. Make sure that dispensers are free of VOCs before dismantle it 4. Provide PPE to all Workers involve in dismantle activities 5. Proper procedure shall be established for dismantling equipment that equipment that contain VOCs 6. Operator shall ensure to hire competent and experience worker/contractor to carry out decommissioning activities 7. Operator shall ensure that the activities are carried out based on the established procedure. 8. Always start the activities with safety briefing 9. Wear proper PPE 10. Maximum supervision from the project or facility manager on the activities	1. Cease the work if VOCs are still present in the storage tanks, fuel pipes and dispensers 2. Maximum supervision from project or facility manager on the activities	1. Reassess the existing preventative measures and implement the result 2. Ensure that necessary measure has been put in place prior to resume the activities 3. Maximum supervision from project or facility manager on the activities
• Work in extreme heat non stop		*Worker expose to extreme heat*	1. Workers must adjust exposure until body is acclimated to the heat 2. Notify supervisor of any personal risk factors 3. Set up break schedule 4. Provide proper PPE to all workers involve in the activities 5. Operator shall ensure that the worker wear proper PPE 6. Prepare water or any alternative liquid to keep workers hydrated 7. Prepare first aid kit in an accessible location 8. Only allow certified workers to perform first aid 9. Do not ignore possible symptoms of heat stress 10. Rest if exhausted 11. Provide safety briefing prior to carry out the activities 12. First Aid kit shall be made available on site and the operator shall ensure at least one staff with first aid knowledge shall be made available on site 13. Maximum supervision from project or facility manager on the activities	1. Cease the work temporarily when there is workers suffer from heat 2. Apply first aid to heat exhausted workers or suffer from un serious heat stress 3. Evacuate the workers if the workers suffer serious heat stress to nearest hospital or clinic or contact emergency number for evacuation assistance 4. Maximum supervision from project or facility manager on the activities	1. Let the workers recover completely before resume to work 2. Compensate the workers if necessary 3. Reassess the existing preventative measures and implement the result 4. Ensure that necessary measure has been put in place prior to resume the activities 5. Maximum supervision from project or facility manager on the activities and sick workers
• Vehicles movement • Working with heavy machinery • Work at height		*Risk of injury related to accident (vehicles, heavy duty equipment working in height, etc.)*	1. Only allow competent workers to perform the work 2. Only allow competent driver to operate the vehicles and heavy machineries 3. Introduce speed limit on site for vehicles leaving and entering 4. Hold frequent safety meeting 5. Recognize hazard and provide plan to minimize the risks 6. Wear proper PPE before working at height 7. Workers must make sure that every time workers are on roofs and scaffolding, fall-prevention countermeasures are in place. 8. Make sure to work in a team of two or more 9. Prevent falling objects 10. Provide emergency contact numbers 11. First Aid kit shall be made available on site and the operator shall ensure at least one staff with first aid knowledge shall be made available on site 12. Remind workers to wear proper PPE before working	1. Cease the activities temporarily when there is an accident or incident or injured during the activities 2. Apply first aid to treat unserious injured workers 3. Evacuate serious injured workers to nearest hospital or clinic, or contact emergency number for evacuation assistance 4. Maximum supervision from the project or facility manager on the activities and on injured	1. Compensate if necessary 2. Do proper record on the incident and make it available in the site 3. Reassess the existing preventative measures and implement the result 4. Ensure that necessary measure has been put in place prior to resume the activities 5. Maximum supervision from the project or facility manager on injured workers

			13. Remind driver on the speed limit in the facility 14. Maximum supervision from the project or facility manager on the activities	workers	
• Dismantle facility components		*Workers mechanical related works accident*	1. Hiring people with related work experiences 2. Hire contractor/worker that have knowledge on mechanical equipment and hazard 3. Prevent body to contacting hazardous moving parts 4. Ensure no objects can fall into moving parts 5. Provide proper PPE and workers must PPE before working 6. Remind workers to wear proper PPE before working 7. First Aid kit shall be made available on site and the operator shall ensure at least one staff with first aid knowledge shall be made available on site 8. Maximum supervision from the project or facility manager on the activities	1. Cease the activities temporarily when there is an accident or incident or injured during the activities 2. Apply first aid to treat unserious injured workers 3. Evacuate serious injured workers to nearest hospital or clinic, or contact emergency number for evacuation assistance 4. Maximum supervision from the project or facility manager on the activities	1. Compensate if necessary 2. Do proper record on the incident and make it available in the site 3. Reassess the existing preventative measures and implement the result 4. Ensure that necessary measure has been put in place prior to resume the activities 5. Maximum supervision from the project or facility manager on injured workers
		Work in Confined space	1. Procedure on confined space entry shall be established and operator shall ensure that confined space entry work shall follow the procedure 2. Only allow competent and certified Workers/contractors to performs confined space work 3. Operator shall provide information on the contractor and the procedure to the ANPM prior to carry out the activities 4. Use Respiratory protective equipment for confined space work 5. Provided proper PPE and workers must wear the PPE before the activities 6. Make sure to work in a team of two or more 7. Remind workers to work in a team 8. Remind workers to wear proper PPE 9. First Aid kit shall be made available on site and the operator shall ensure at least one staff with first aid knowledge shall be made available on site 10. Maximum supervision from the project manager on the activities	1. Cease the temporarily when accident or incident happen 2. Rescue the injured workers from the confined space 3. Apply first aid to treat non serious injury 4. Evacuate the serious injured workers to nearest hospital or clinic or contact emergency number for evacuation assistance 5. Maximum supervision from the project manager on the activities	1. Let the work recover completely before resume to work 2. Compensate the workers if necessary 3. Do proper record on the incident and make it available in the site 4. Reassess the existing preventative measures and implement the result 5. Ensure that necessary measure has been put in place prior to resume the activities 6. Maximum supervision from the project manager on the activities
• Dismantle electrical power system • Leaking of fuel from vehicles during decommissioning		*Impact of fire in the project area or facility on the workers*	1. Disconnect all the electrical source prior to dismantle electrical power system 2. The work area must be fenced to prevent unauthorized access to working areas. 3. Avoid using leaking vehicles in project area or facility 4. Only designated Workers, supervision and nominated personnel will be allowed in work areas. 5. Relevant signage must be placed in and around the proposed site, for purposes of awareness during decommissioning phase 6. An emergency response plan must be available on site and contractor and its Workers must be familiar with the plan. 7. Smoking is not permitted on site. 8. PPE must be worn at all time by staffs 9. All Workers should be made aware of all emergency contact numbers 10. Proper fire extinguisher should provide near that activities	1. Cease the work temporarily when there is fire during the activities 2. Evacuate Workers to safe place 3. Apply first aid to unserious injured workers 4. Evacuate serious injured workers to nearest hospital or clinic, or contact emergency number for evacuation assistance 5. Maximum supervision from project or facility	1. Investigate the accident or incident 2. Let the workers recover completely before resume to work 3. Compensate the workers if necessary 4. Notify the relevant authority when there is casualty 5. Do proper record on the incident and make it available in the site 6. Reassess the existing preventative measures and implement the result 7. Ensure that

			11. Remind workers to wear PPE 12. First Aid kit shall be made available on site and the operator shall ensure at least one staff with first aid knowledge shall be made available on site 13. Maximum supervision from the project or facility manager on the activities	manager on the activities	necessary measure has been put in place prior to resume the activities 8. Maximum supervision from the project or facility manager on the activities
		Electrical accident	1. Disconnect all the electrical source prior to dismantle electrical power system 2. Only allow competent workers to perform the activities 3. Provide PPE to workers and workers must wear the PPE before the activities 4. Make sure to work in a team of two or more 5. Remind workers to wear PPE 6. First Aid kit shall be made available on site and the operator shall ensure at least one staff with first aid knowledge shall be made available on site 7. Maximum supervision from the project or facility manager on the activities	1. Cease the work temporarily when there is accident or incident 2. Evacuate Workers to safe place 3. Apply first aid to unserious injured workers 4. Evacuate serious injured workers to nearest hospital or clinic, or contact emergency number for evacuation assistance 5. Maximum supervision from project or facility manager on the activities	1. Investigate the accident or incident 2. Let the workers recover completely before resume to work 3. Compensate the workers if necessary 4. Notify the relevant authority when there is casualty 5. Do proper record on the incident and make it available in the site 6. Reassess the existing preventative measures and implement the result 7. Ensure that necessary measure has been put in place prior to resume the activities 8. Maximum supervision from the project or facility manager on the activities
• Vehicles movement (in and out of the project area or facility) • Use of heavy machinery • Demolition of the facility • Wastes production and burning	**Social impact (community health and safety)**	*Dust (particulate matter) and Flue gasses/ exhaust gasses impact on community*	1. Regular spray dusty area using water to suppress dust from suspend in the air 2. Make sure that dusty floor in the project area or facility is regularly cleaned to avoid accumulation of dust 3. Concrete mixture should be properly done to avoid cement powder from carrying by the wind, particularly during windy day 4. Stop using out of control flue gasses vehicles, machineries and generator 5. Regular maintenance for vehicles and equipment to avoid gasses emission 6. Establish speed limits to vehicles operate inside and outside the project area and the speed limit sign should be temporarily installed in the project to remind the drivers 7. Turn of the unnecessary idling engines of vehicles and machineries 8. Regular maintenance for back-up generator 9. Suspend the work when during windy day 10. Wastes should not be burnt onsite, but managed and disposed of at the designated location 11. Proper wastes management sign should be displayed in the project area or facility 12. Remind the drivers to not drive over the established speed limit 13. Remind the workers to manage and dispose wastes of at the designated location	1. When there is complaint from the surrounding community cease the work temporarily 2. Resolve to complaint in a proper manner before resume the activities 3. Contact emergency number if there is physical confrontation involved during complaint 4. Stop using out of control flue gas vehicles, machineries and generator 5. Wastes should be cleaned and disposed of at the designated location 6. Maximum supervision from the project or facility manager on the activities	1. Let the police investigate people who involve in physical confrontation 2. Do proper record and make it available in the site 3. Reassess the existing preventative measures and implement the result 4. Ensure that necessary measure has been put in place prior to resume the activities 5. Maximum supervision from the project or facility manager on the activities

			14. Maximum supervision from the project or facility manager on the activities		
• Vehicles movement (in and out of the project area or facility) • Movement of outside the facility		*Traffic jam and traffic accident (general traffic outside the project area or facility)*	1. Clear markings to set apart vehicle and pedestrians routes; 2. Dedicated personnel must be presented to manage traffic and pedestrian movements outside the project area or facility. 3. Ensure that company's drivers have the competence to operate the vehicles safely outside the project area or facility and have valid driving license 4. Provide warning signs at all entrances and exits when carry out decommissioning activities. 5. Provide sign for safe movement of vehicles and people (pedestrian crossing areas, barriers, safe zones, walkways etc.). 6. Introduce a speed limit to companies driver operate outside the project area or facility and continue remind driver to control the speed 7. Company's driver should follow all the traffic signs on the road 8. Driver operate companies vehicles outside the project area or facility in any circumstances should under no alcohol influence 9. Provide emergency contact numbers in the vehicles and drivers should be made to aware of emergency contact number 10. First aid kit should be made available in the vehicles operating outside the project area or facility 11. Company's driver should be trained to use first aid kit and have training certificate 12. Maximum supervision from project or facility manager on the activities	1. Driver should follow traffic signs or/and police instruction to avoid causing traffic jam 2. when there is traffic accident or incident, driver should stop the vehicle to assess the accident or incident 3. Apply first aid to unserious injured victim 4. Evacuate the serious injured victim to nearest hospital or clinic or call emergency number for evacuation assistance 5. Maximum supervision from project or facility manager on the activities	1. Let the police investigate the accident or incident 2. Compensate the victim if necessary 3. Emergency contact numbers must be made available in the companies vehicles 4. Company should toughen up the regulation or police control driver behaviour 5. Do proper record and make it available in the site 6. Reassess the existing preventative measures and implement the result 7. Ensure that necessary measure has been put in place prior to resume the activities 8. Maximum supervision from the project or facility manager on the activities
• Vehicles movement (in and out of the project area or facility) • Demolition of the facility		*Noise impact and Vibration impact*	1. Notify the community around the project area or facility on the decommissioning plan and impact of the activities 2. Demolition of the facility should happens during working hours 3. Make sure that noise produce during demolition does not exceed the maximum standard 4. Recommend to use low noise and vibration equipment during decommissioning activities 5. Maximum supervision from the project or facility manager on the activities	1. Cease the activities temporarily when there is complaint from the community 2. Resolve the complaint before resume the work 3. Call emergency contact number if there is physical confrontation involve during the complaint 4. Maximum supervision from the project or facility manager on the activities	1. Let police investigate people who involve in physical confrontation 2. Resolve any problems in a proper manner 3. Investigate if there is damage to community property cause by the vibration during decommissioning activities 4. Compensate if vibration produce during the activities destroy community's property 5. Do proper record and make it available in the site 6. Reassess the existing preventative measures and implement the result 7. Ensure that necessary measure has been put in place prior to resume

					the activities 8. Maximum supervision from the project or facility manager on the activities
• Leaking of fuel from vehicles during decommissioning • Mechanical works		*Fire impact on the community*	Use the preventive action mitigation measures for fire impact in the project area or facility on the Workers in this section to prevent fire.	Use the control and responding action mitigation measures for fire impact in the project area or facility on the Workers in this section as control and responding actions.	Use the corrective action mitigation measures for fire impact in the project area or facility on the Workers in this section as corrective actions.
• Removing underground storage tanks • Removing pipework • Removing dispenser • Removing wastewater treatment system • Leaking of fuel or lubricant from heavy machinery	**Soil quality, Water quality (both groundwater and surface water)**	*Soil, Surface water and groundwater pollution due to fuels spill and leak*	1. Ensure fuel has been removed from the UST. 2. Pipes and vents must be disconnected and removed before the tank is lifted. 3. The UST must be securely fastened before transportation via truck from the site. 4. Soil samples will be obtained from the base and sides of the UST excavation to verify that the site is un-impacted and does not pose a contamination risk to human or the environment. 5. Backfill material must be un-impacted. 6. Ensure that any contaminated soil is removed and properly disposed to prevent potential impacts on groundwater. 7. If any pollution/ contamination of water resources or soil is detected during the decommissioning of the tanks, relevant authorities should be informed 8. Any liquid waste produce during the decommissioning must be properly disposed at the designated location/facility. 9. Maximum supervision from the project or facility manager on the activities	1. Make known to relevant authority if leak is detected and the contaminated sites 2. Maximum supervision from the project or facility manager on the activities	1. Clean the leakage and spillage 2. Remediation must be undertaken when contamination is detected 3. Maximum supervision from the project or facility manager on the activities
• Spill or leak • Fire or explosion	**Ecology impact**	*vegetation and/animals*	Rehabilitate the site by planting trees and grass if there is no plan to use the site for other activities. It is important to work with relevant authorities do carry out rehabilitation		
Decommission of the facility	**Economic and agricultural impacts**	*Impact on employees*	1. Let the employees know as early as possible 2. Allocate the employees to other facility if possible 3. Help them to find other jobs if possible		
Waste production and burning		*Waste production*	1. Manage the wastes properly and dispose the wastes at the designated location 2. Wastes should not be burnt onsite 3. Sign should be displayed on site and where waste should accumulated and disposed of 4. Maximum supervision from the project or facility manager on the activities	1. Clean the improper disposal of wastes and dispose at the designated location 2. Maximum supervision from project or facility manager on the activities	1. Remind workers to manage and dispose the wastes of at the designated location 2. Maximum supervision from the project or facility manager on the activities

10. SUMMARY OF ENVIRONMENTAL MANAGEMENT PLAN

The Environmental Management Plan (EMP) involves risk management strategies that should be undertaken by the project proponent, project manager and the residents to mitigate environmental degeneration. They are approaches to monitor, control, reclaim and restore the environment back to its appropriate state. EMP's for projects thus provide logical frameworks within which the identified issues of environmental concern can be mitigated, monitored and evaluated.

Environmental monitoring involves measurement of relevant parameters, at a level of details accurate enough, to distinguish the anticipated changes. Monitoring aims at determining the effectiveness of actions to improve environmental quality.

The environmental management and monitoring plans has been developed and outlined to bring home the key findings of the Environmental Impact Assessment of the project in mention, recommending necessary mitigation actions, defining roles and the estimated cost.

a. Institution roles and Responsibilities

The following institutions and authorities (as mentioned earlier in the section of institutional roles and responsibilities) have roles and responsibilities in safeguarding the social wellbeing, economic, and the environmental protection relevant to the proposed project.

(1) *Agençia Nacional de Licensiamento Ambiental (ANLA)* (2) *Secretario Estado do Meio Ambiente (SEA)*	Carry out inspection and monitoring to safeguard the environment, health and safety
(3) Autoridade Nacional do Petróleo e Minerais (ANPM) *Direcção Downstream* (4) *Ministério* do Petróleo	The regulatory authority for the petroleum and natural gas and related products, and mining industries Carry out inspection and monitoring on downstream activities
(5) *Direcção Nacional* de *Servicos* de *Águas e Saneamento (DNSAS)*	Responsible for the national management of water resources. It also formulates sector policy, manages the distribution for human consumption, and monitor water quality through DNSAS laboratory
(6) *Ministério da Saúde*	Responsible for public health
(7) Direcção Nacional da Protecção Civil (which include the fire fighters)	Responsible for fire hazard and emergency

b. Cost Estimation for Mitigation Measures

The total investment of CDFG Unip Lda is equal to $350,000 which will covered construction of the Fuel Station and its supporting facilities, training of staff, component of fuel station facilities.

11. PUBLIC CONSULTATION

Public consultation is conducted by project owner and supported by the consultant with the objective to obtain constructive opinion or comments from affected community including negative and positive comments. The method of public consultation is door to door and by forum. Opinion and comments attached in this EMP Document.

There are several respondents were interviewed on their concerns regarding the impacts due to the proposed project activity. Most of the correspondents are pleased with the presence of the fuel filling station and the job opportunity that might be created. However, dust and safety are the main issue that raised by the correspondent.

Figure 38. Public Consultations by Face to Face (*Source: Hersege Consultant 2021*)

12. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE WITH LOCAL AUTHORITIES AND COMMUNITIES

1. Public Consultation

According to **Minesterial Diploma No.47/2017,** in preparing drafts for SEIS and EMP, ANPM requested the proponent to complete the existing requirements, by holding public consultations with local residents, government institutions, local authorities, intellectuals and other relevant government agencies, with the reason that in the preparation stage of the SEIS and EMP documents, it is very necessary for these activities so that the proponent can understand the situation and condition of the area from the surrounding community, of a development project or investment in certain areas, especially in the Camea area. The purpose of the public consultation held by the company is to hear, understand and accept suggestions, criticisms and constructive solutions, for the vision or business strategy plan prepared by the company so far.

That way, on August 6, 2021, the proponent made a plan to complete the requirements requested by ANPM to hold a public consultation forum, from the preparations made by the proponent for smooth running of the event, the first thing the proponent made was to coordinate between the proponents. with the local authority, and also with the ANPM to determine the day and date to realize the event. From the public consultations which took place from August 6, 2021, while during the event there were many questions, suggestions and constructive criticism submitted from the surrounding community, people's representatives or local authorities as well as explanations on environmental laws from ANPM. from the suggestions and criticisms submitted by the guests at the event, among others, as follows;

1. **Mr. Jose Ricardo (Komunidade);**

   On this occasion, the community complained about the futsal field which is currently being used by the surrounding community to exercise every afternoon. a request from the local community is whether the CDFG company has coordinated the problem with chefe aldeia to find a solution in order to get a new place for futsal sports activities as in the beginning.

2. **Mr. Marito Carlos da Costa (Komunidade);**

   Mr. Marito Carlos da Costa supports the project which will be established in the near future, and Mr. Marito suggests to the company to make a fence before starting construction, and the company must comply with all applicable regulations especially for Health and safety Environment.

3. **Mrs. Fernanda Perreira (Komunidade);**

   Mrs. Fernanda is very worried about the relocation of the *Cruz Jovem* which will be moved by the company to another place that is not necessarily feasible to place the *Cruz Jovem*. The next complaint regarding the *Fahi Luhan* who will be affected by the project, Ibu Fernanda asked that, whether there will be compensation from the company or the government for the *Fahi Luhan*.

4. **Mr. Gaspar P. Pinto (Komunidade);**

   Mr. Gaspar asked about the readiness of the CDFG company for this project, especially the mobilization of heavy equipment, the impacts that will occur are; dust, noise, vibration, and water requirements for the needs of the project. the last request is regarding employment opportunities for youth around this project area, whether the CDFG company will provide opportunities and prioritize the surrounding community to work on this project in the future.

5. **Mr. Cesario Dias Freitas Gusmão (CDFG Director);**

   The response from the CDFG Director to all questions and complaints is; The company has a very big commitment to solving various problems, especially from current complaints.

   Previously, CDFG Company had coordinated with Chefe Suco, Chefe Aldeia Fatuk Francisco and Chefe Aldeia Terminal and discussed plans for the future development of this project. From there, CDFG Company has also submitted a letter of application to the central government agency, namely the ministry of law and the central land and property department regarding the status of the land to build a business on this government land. From all this process, the company is very confident that, with a land lease permit with the government, it will not be difficult for the company to do business on the land.

   For the problem that the futsal field and the cruz jovem will be moved from the land, the CDFG Company and Chefe Aldeia have also found suitable land, namely land owned by the government to move sacred objects (Cruz Jovem), and a new place for the futsal field.

Public consultation is conducted by project owner and supported by the Hersege consultant with the objective to obtain constructive opinion or comments from affected community including negative and positive comments. The method of public consultation is door to door or face to face and by forum also, opinion and comments attached in this Project Document.

There are several respondents were interviewed on their concerns regarding the impacts due to the proposed project activity. Most of the correspondents are pleased with the presence of the fuel filling station and the job opportunity that might be created. However, they suggested constructing the proper fuel filling station, since they are concerned on the impact that may occur in the future such as fire and others accident and control the quality and price of the fuel.

Figure 39. Public Consultations by Forum with Local Community, Local Authority and ANPM (*Source: CDFG and Hersege Consultant 2021*)

2. Information Disclosure

Disclosure of relevant environment safeguards documents will be in an appropriate form, manner, and language and at an accessible location to be understandable to the affected people and local stakeholders. The approved SEIS and EMP will be provided in the Proponent's office and can be accessed by project stakeholders' including affected communities within the project's area. The SEIS and EMP are considered as public document which is subjected to pass the information on the identified impacts and the proposed mitigation measures to be implemented.

13. DIFFICULTIES ENCOUNTERED

The following information indicates the difficulties encountered by CDFG Unipessoal Lda team and Consultant team during site survey:

a. Lack of the availability of data regarding weather condition
b. Weather condition was not favorable to conduct the survey. As a consequent the survey was delayed for quite a while.
c. The availability of laboratory test in domestic use is considerably minim. Difficulty on disseminating the information through public consultation due to the fact that there should be in advance invitation taken place and convincing the cultural and community leader to be able to participate the public consultation.

14. CONCLUSION AND RECCOMENDATION

a. Conclusion

Based on the information above we can concluded that the construction of the fuel filling station project is a new additional business venture proposed by CDFG Unipessoal Lda to involve directly in the direct delivering the fuel to the consumers in Camea. The location of the project is located in Suco Camea. Analysis of the environmental impacts from the pre-construction phase, construction phase, operation phase, maintenance phase and decommissioning phase has suggested that there are potential impacts related to the Loss of Vegetation, air quality, contamination of the soil and groundwater body. Moreover, the important concern also related to the occupational health and safety such as exposure to the chemical and other hazardous material which should be properly managed and mitigate. The mitigation measures to the impacts have been proposed in the mitigation measures section**.**

b. Recommendation

There is several recommendations can be presented in relation with the project activities:

- The project owner to continue its construction and operation of fuel filling station compliance with all the legal framework of environmental policy and best practice of safeguard principle by implementing the proper mitigation measures according to the SEIS and EMP provided in this document
- The proponent continue to enhance the social corporate responsibility in reaching out the community in promoting the best practice of safeguard principle in order to reach a good balance between business and giving back to the community

- Authorities and project Proponent have to actively monitor the implementation of the EMP with the given proper indicator so that the propose EMP will be implemented
- The proponent has to read carefully the document so that all the propose EMP would be understood and implemented
- The proponent stated the seriousness in the resolving any environmental problem that may occur in relation to the project implementation.

15. NON-TECHNICAL SUMMARY

The aim of this Simplified Environmental Impact Statement (SEIS) is to examine the negative effects that this proponent undertaking is likely to have on both the physical ecological and socio economic environment.

Objectivo husi Declarasaun Impactu Ambiental Simplikada (DIAS) atu examina afeito negative ne'ebe proponente hala'o sei kona ba fisika ekologia no ambiente sociu ekonomiko.

The proposed project is an automotive fuel filling station, called CDFG Unipessoal Lda which located at Fatuk Francisco, Suku Camea, Post Administrative of Cristo Rei, Dili and Timor-Leste.

Proposta projeitu mak hanesan fatin avastamentu kombustivel, bolu CDFG Unipessoal Lda ne' ebé lokaliza iha Fatuk Francisco, Suku Camea, posto administrative Cristo Rei, Dili no Timor-Leste.

This environmental impacts assessment as a basis to prepare the report SEIS and EMP has been conducted by taking the reference from the legal framework of environmental safeguard policy, as well as the Timor Leste regulation of petroleum and mineral resources management.

Avaliasaun impaktu ambientál ida ne'e hanesan baze ida atu prepara relatóriu DIAS no PJA ne'ebe hala'o tiha ona husi referénsia husi rejime jurídiku kona-ba polítika ambientál salvaguarda, nune'e mós ba regulamentu Timor-Leste kona-ba jestaun rekursu petróleu no mineral.

Description of the existing environment including physical, ecological, socio-economic and cultural components are provided for the baseline environmental information.

Deskrisaun kona-ba ambiente hirak ne'ebé inklui fízika, komponente ecologika, sósiu-ekonómiku no kulturál sira fornese informasaun baze ambiental

Based on the preliminarily identification of feasibility study for the proposed location, there is no project alternative and the alternative locations are not the applicable alternatives to the project.

Bazeia ba identifikasaun preliminár estudu viabilidade ba fatin ne'ebé propoin, katak laiha alternativa projetu no fatin alternativu sira la alternativa ne'ebé bele aplika ba projetu

The description of climate change consist of historic weather, future projection under projected climate change, Implication for the Proposed Project and adaptation measures required to mitigate any potential adverse impacts

Deskrisaun kona-ba mudansa klimátika ne'ebé kompostu husi istóriku klimatika, projesaun futuru iha klima ne'ebé projeta muda, implikasaun ba Projetu ne'ebé Propoin no adaptasaun medida hirak ne'ebé presiza hodi halo mitigasaun ba impaktu ladiak potensiál ruma

Potential environmental impacts have been identified; proposed mitigation measures and monitoring responsibility during pre-construction, construction, operation, maintenance and decommissioning phase.

Identifika tiha ona potensiál ba impaktu ambientál; propoin medidas mitigasaun no monitorizasaun responsabilidade durante pré-construsaun, construsaun, Operasaun, manutensaun, ho dekomisaun prontamente prevee tiha ona

The Environmental Management Plan (EMP) involves risk management strategies that should be undertaken by the project proponent, project manager and the residents to mitigate environmental degeneration.

Planu Ambientál Jestaun (PJA) involve risku jestaun estratéjia ne'ebé sei hala'o husi proponente projetu, jerente projetu nian no ba komunidade hodi halo mitigasaun degenerasaun ambientál

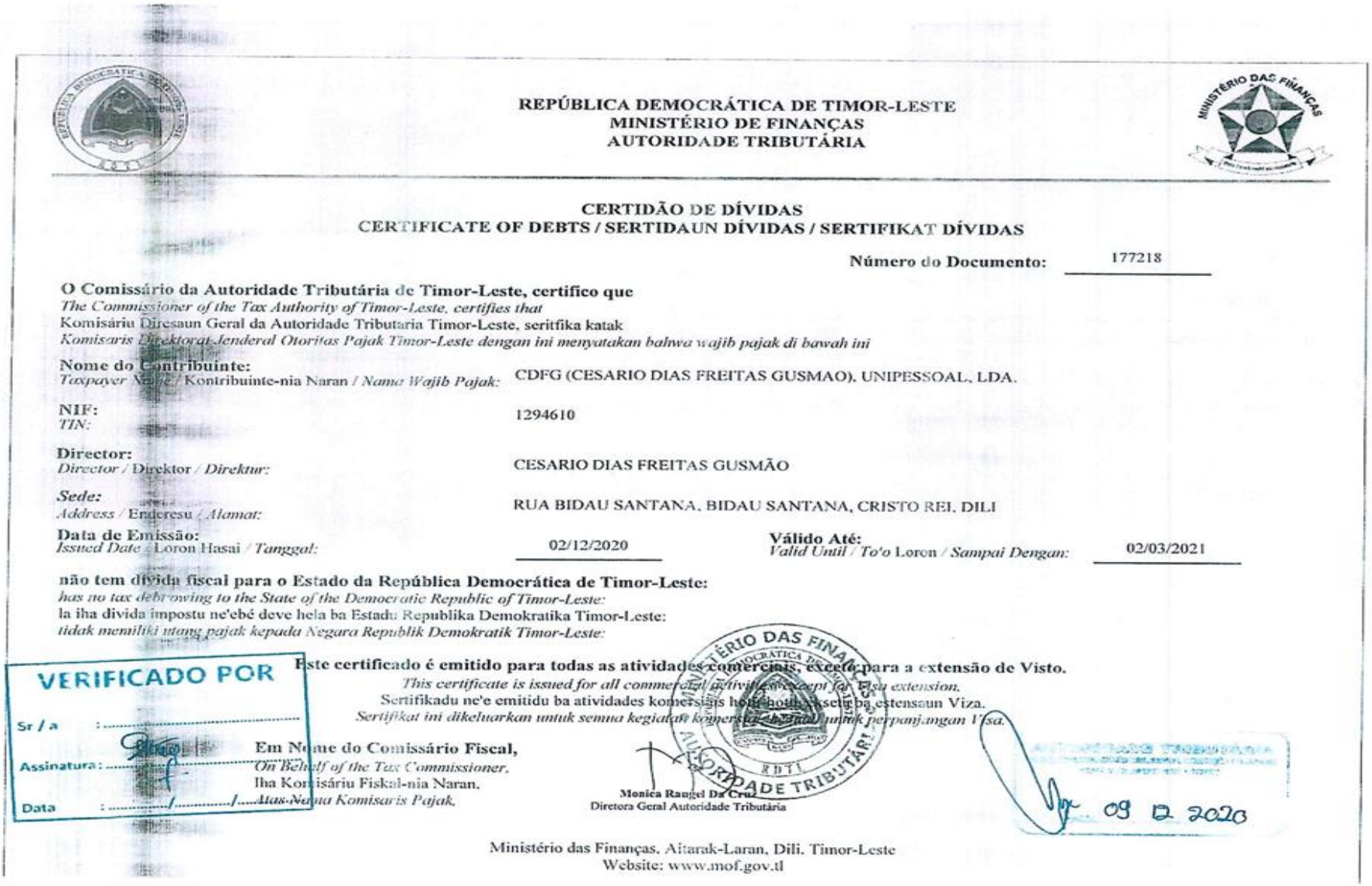
Public consultation is conducted by project owner and supported by Hersege Consultant with the objective to obtain constructive opinion or comments from affected community including negative and positive comments. The method of public consultation is door-to-door or face-to-face and by forum as well.

Konsulta pública ne'ebé hala'o hosi projetu nain no apoiu hosi Konsultór Hersege ho objetivu atu hetan opiniaun ne'ebé konstrutivu ka komentáriu husi komunidade afetadu sira ne'ebé inklui komentáriu negativu no pozitivu. Metodu ba konsulta pública mak husi odamatan ba odamanatan ka oin ba oin nomos via forum.

The difficulties encountered by CDFG team and Consultant team during site survey: lack of availability of data, weather condition and the availability of laboratory test in domestic use is considerably minim

Difikuldade ne'ebé ekipa CDFG no Konsultór halo levantamentu durante survey: fatin ne'ebé propoin besik fatin santu, falta disponibilidade ba dadus, kondisaun tempu no disponibilidade teste laboratóriu utilizasaun doméstika mak konsidera minimu.

ANNEX I
COMPANY LEGAL DOCUMENT



REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE
MINISTÉRIO DE FINANÇAS
AUTORIDADE TRIBUTÁRIA

CERTIDÃO DE DÍVIDAS
CERTIFICATE OF DEBTS / SERTIDAUN DÍVIDAS / SERTIFIKAT DÍVIDAS

Número do Documento: 177218

O Comissário da Autoridade Tributária de Timor-Leste, certifico que
The Commissioner of the Tax Authority of Timor-Leste, certifies that
Komisáriu Diresaun Geral da Autoridade Tributaria Timor-Leste, seritfika katak
Komisaris Direktorat Jenderal Otoritas Pajak Timor-Leste dengan ini menyatakan bahwa wajib pajak di bawah ini

Nome do Contribuinte:
Taxpayer Name / Kontribuinte-nia Naran / *Nama Wajib Pajak:* CDFG (CESARIO DIAS FREITAS GUSMAO), UNIPESSOAL, LDA.

NIF:
TIN: 1294610

Director:
Director / Direktor / *Direktur:* CESARIO DIAS FREITAS GUSMÃO

Sede:
Address / Enderesu / *Alamat:* RUA BIDAU SANTANA, BIDAU SANTANA, CRISTO REI, DILI

Data de Emissão:
Issued Date / Loron Hasai / *Tanggal:* 02/12/2020

Válido Até:
Valid Until / *To'o* Loron / *Sampai Dengan:* 02/03/2021

não tem divida fiscal para o Estado da República Democrática de Timor-Leste:
has no tax debt owing to the State of the Democratic Republic of Timor-Leste:
la iha divida impostu ne'ebé deve hela ba Estadu Republika Demokratika Timor-Leste:
tidak memiliki utang pajak kepada Negara Republik Demokratik Timor-Leste:

Este certificado é emitido para todas as atividades comerciais, exceto para a extensão de Visto.
This certificate is issued for all commercial activities except for Visa extension.
Sertifikadu ne'e emitidu ba atividades komersiais hotu-hotu, exsetu ba estensaun Viza.
Sertifikat ini dikeluarkan untuk semua kegiatan komersial, kecuali untuk perpanjangan Visa.

VERIFICADO POR
Sr / a : .....
Assinatura : .....
Data : ...../...../.....

Em Nome do Comissário Fiscal,
On Behalf of the Tax Commissioner,
Iha Komisáriu Fiskal-nia Naran,
Atas Nama Komisaris Pajak,

Monica Rangel Da Cruz
Diretora Geral Autoridade Tributária

09 12 2020

Ministério das Finanças, Aitarak-Laran, Dili, Timor-Leste
Website: www.mof.gov.tl

SERVE, I.P.

Serviço de Registo e Verificação Empresarial, Instituto Público

Certificado de Registo Comercial

Business Registration Certificate / Sertifikadu Rejistu Komérsiu / Sertifikat Pendaftaran Usaha

Certifica-se para os devidos fins legais que a sociedade com a firma

For due purposes, it is hereby certified that the Enterprise named
Ba objetivu legál sira, tuir mai sertifika Katak empreza ne'e ho naran
Untuk tujuan legal, dengan ini menyatakan baha Perusahaan dengan nama di bawah ini

CDFG (CESARIO DIAS FREITAS GUSMÃO),UNIPESSOAL,LDA.

foi registada sob o Número Único da Empresa (NIF): **1294610**
was registered under the Enterprise Unique Number (TIN):
rejistu tiha ona ho Númeru Úniku Empreza (NIF):
terdaftar dengan Nomor Unik Perusahaan (TIN):

Anexa-se ao presente certificado o resumo do registo, extraído nos termos do Ato Constitutivo e Estatutos.
Attached to this certificate is the summary of the registration extracted in accordance with the Memorandum of Association and corresponding Articles of Association.
Aneksa ho sertifikadu ida-ne'e rezumu husi rejistu ne'ebe hasai tuir Aktu Konstitutivu no Estatuto sira.
Terlampir adalah ringkasan dari pendaftaran sesuai dengan Akta Perusahaan dan Anggaran Dasar terkait.

EMITIDO NOS TERMOS DO DECRETO-LEI N. 16/2017.
ISSUED IN ACCORDANCE WITH THE DECREE-LAW 16/2017.
HASAI TUIR DEKRETU LEI N.16/2017.
DIKELUARKAN BERDASARKAN UNDANG-UNDANG NO. 16/2017.

Data da emissão: 08/09/ 2020
Issued on
Loron Hasai
Tanggal Dikeluarkannya

Autenticação do SERVE,I.P.:
SERVE,I.P.'s Authentication
Autentikasaun SERVE,I.P.
Otentifikasi SERVE,I.P.

SERVE, I.P.
Cópia conforme com o original
23 NOV 2020

0134507

SERVE, I.P.
Serviço de Registo e Verificação Empresarial, Instituto Público

Autorização para Exercício de Atividade Económica

Authorization to Conduct Activity / Autorizasaun atu Hala'o Atividade / Persetujuan untuk Melakukan Kegiatan Usaha

(Alto Risco/High Risk/Risku A'as/Resiko Besar)

FIRMA:
REGISTERED NAME
NARAN KOMPAÑIA
NAMA PERUSAHAAN
CDFG (CESARIO DIAS FREITAS GUSMÃO), UNIPESSOAL, LDA.

NÚMERO ÚNICO DA EMPRESA (NIF): **1294610**
ENTERPRISE UNIQUE NUMBER (TIN)
NÚMERU ÚNIKU KOMPAÑIA NIAN (NIF)
SATUAN NOMOR UNIK PERUSAHAAN (TIN)

SEDE PRINCIPAL EM:
MAIN OFFICE ADDRESS
SEDE PRINCIPAL IHA
ALAMAT KANTOR PUSAT
RUA BIDAU SANTANA, BIDAU SANTANA, CRISTO REI, DILI, TIMOR LESTE

ATIVIDADE COMERCIAL AUTORIZADA:
COMMERCIAL ACTIVITY AUTHORIZED
ATIVIDADE KOMERSIÁL NEEBÉ AUTORIZADA
KEGIATAN USAHA YANG DIIZINKAN
473 - RETAIL SALE OF AUTOMOTIVE FUEL IN SPECIALIZED STORES
473 - COMÉRCIO A RETALHO DE COMBUSTÍVEIS EM ESTABELECIMENTOS

SERVE, I.P.
Cópia conforme com o original
Florência da Conceição Sanches
Diretora Executiva do SERVE, I.P.
Data 05 OCT 2020

DATA DE EMISSÃO: *(ISSUED ON/LORON HAS'AI/*
TANGGAL DIKELUARKAN 23/09/2020

VÁLIDA ATÉ *(VALID UNTIL/LORON IKUS/*
BERLAKU SAMPAI 23/09/2021

Autenticação do SERVE, I.P.
SERVE's Authentication
Autentikasaun SERVE, I.P.
Otentifikasi SERVE, I.P.

EMITIDA NOS TERMOS DO DECRETO-LEI N.34/2017
ISSUED IN ACCORDANCE WITH THE DECREE-LAW 34/2017.
HASAI TUIR DEKRETU-LEI N. 34/2017.
DIKELUARKAN BERDASARKAN UNDANG-UNDANG NOMOR 34/2017.

0133326

SERVE, I.P.
Serviço de Registo e Verificação Empresarial, Instituto Público

Certidão do Registo Comercial

No. Processo 22609 /DIL

O Serviço de Registo e Verificação Empresarial Instituto Público– SERVE,I.P., certifica que a sociedade:
Serbisu ba Rejistu no Verifikasaun Empreza riál, Institutu Públiku – SERVE,I.P., sertifika katak sosiedade:
The Service for Registration and Verification of Entrepreneurs, Public Institution – SERVE,I.P., certifies that the company:

Firma: CDFG (CESARIO DIAS FREITAS GUSMÃO) , Unipessoal, Lda.
Naran Kompañia/ Company's Name

Sede: SAGRADA FAMILIA,BIDAU SANTANA,CRISTO REI,DÍLI,TIMOR-LESTE
Sede/ Main Office

está legalmente registada desde 09 /Agosto /2018 , **sob o Número Identificação Fiscal (NIF/TIN)** 1294610 .
rejista ona tuir lei hahu'u husi *Ioron,* *Fulan* *Tinan,* *ho Númeru Identifikasaun Fiskál nian.*
is legally registered since Date Month Year, under the Company's Unique Number.

Termos Estatutários: *Termos Estatutu nian/* In accordance with Articles of Association (AoA)

Capital Social: USD 5,000.00,-
Kapitál Sosiál/ Share Capital

Objeto Social: *Objetu Sosiál/* Objectives

ESTÁ CONFORME O ARTIGO 3º DO ESTATUTO EM ANEXO**********
****
****

Sócio(s): Sósiu sira/Shareholders	NIF/NIF Individuál Personal TIN	I.D No.	Tipo I.D Tipu/Type	$-%/Quotas/Acões Kuotas/Shares
CESARIO DIAS FREITAS GUSMÃO	3248320	00040879	CElei	100%
**********				
**********				
**********				
**********				
**********				
**********				
**********				
**********				
**********				
**********				
**********				
**********				
**********				

Administração/ Conselho de Administração: Administrasaun/Konsellu Administrasaun / Administration/Administration Board	I.D. No.	Tipo Tipu/ Type
CESARIO DIAS FREITAS GUSMÃO	00040879	CElei
**********		
**********		

Representante Legal: Reprezentante Legál/ Legal Representative	I.D. No.	Tipo Tipu/.Type
**********		

Fiscal Único / Conselho Fiscal: Fiskál Úniku/ Konsellu Fiskál/ Single Fiscal/Fiscal Council	I.D. No.	Tipo Tipu/ Type
**********		
**********		

Secretário(a): Sekretáriu(a)/ Secretary	I.D. No.	Tipo Tipu/Type
**********		

Certificado do Registo Comercial emitido em Dili, 08 /Setembro /2020 , **nos termos do DL nº 16/2017 e Lei nº 10/2017.**
Sertifikadu Rejistu Komersiál hasai iha *Ioron* *fulan* *tinan* *tuir Dekretu-Lei nº 16/2017 no Lei nº 10/2017.*
Business Registration Certificate issued in Date Month Year in accordance with Decree-Law 16/2017 and Law 10/2017.

Válido Até, 08 de Setembro de 2021
Validu To'o
Valid Until

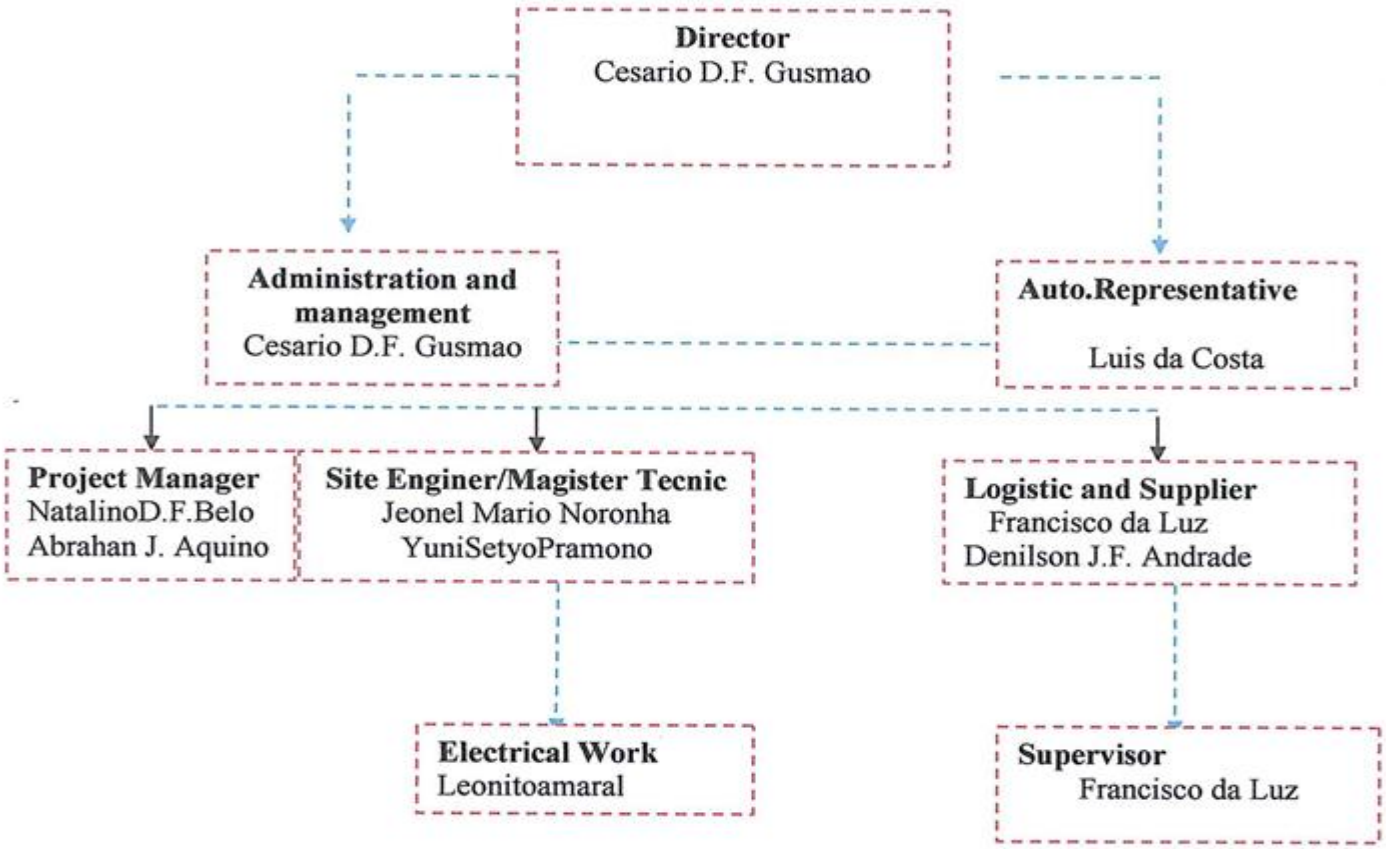
23 NOV 2020

Gil Mendonça
Serviço de Processamento

CDFG UNIPESSOAL LDA

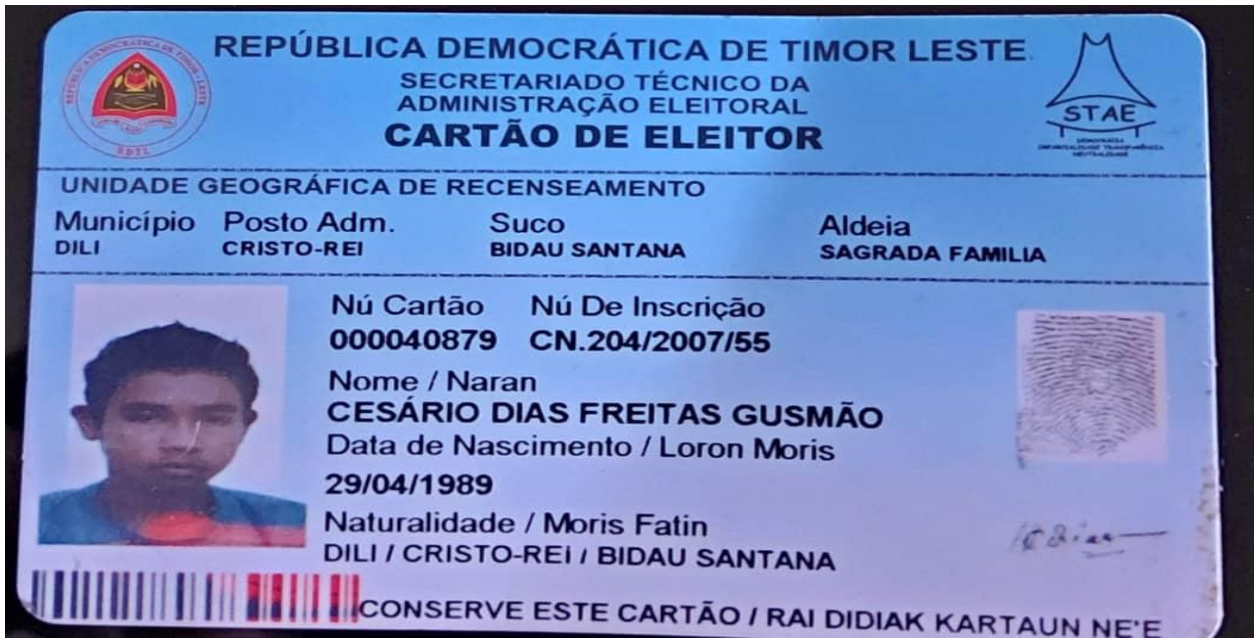
GENERAL FUELS, OIL, CONTRACTOR AND SUPPIER
RUA:DE PLAM BUSINESS AND TRADE CENTER,
SURIK MAS, FATUMETA, BAIRO PITE, DOM ALEIXO, DILI
NO CONTACTO (+670) 7709 0460 – 7731 2268
TIMOR-LESTE
Email:cesariodias04@gmail.co.id

Contractor's Organizational chart for the work



ProjectOrganizational Chart

The bidder is to insert an organizational chart showing the chain of command on site and the relation between site and head offiice.



REPÚBLICA DEMOCRÁTICA DE TIMOR LESTE
SECRETARIADO TÉCNICO DA ADMINISTRAÇÃO ELEITORAL
CARTÃO DE ELEITOR

UNIDADE GEOGRÁFICA DE RECENSEAMENTO

Município	Posto Adm.	Suco	Aldeia
DILI	CRISTO-REI	BIDAU SANTANA	SAGRADA FAMILIA

Nú Cartão: 000040879
Nú De Inscrição: CN.204/2007/55
Nome / Naran: CESÁRIO DIAS FREITAS GUSMÃO
Data de Nascimento / Loron Moris: 29/04/1989
Naturalidade / Moris Fatin: DILI / CRISTO-REI / BIDAU SANTANA

CONSERVE ESTE CARTÃO / RAI DIDIAK KARTAUN NE'E

CONSERVE ESTE CARTÃO / RAI DIDIAK KARTAUN NE'E

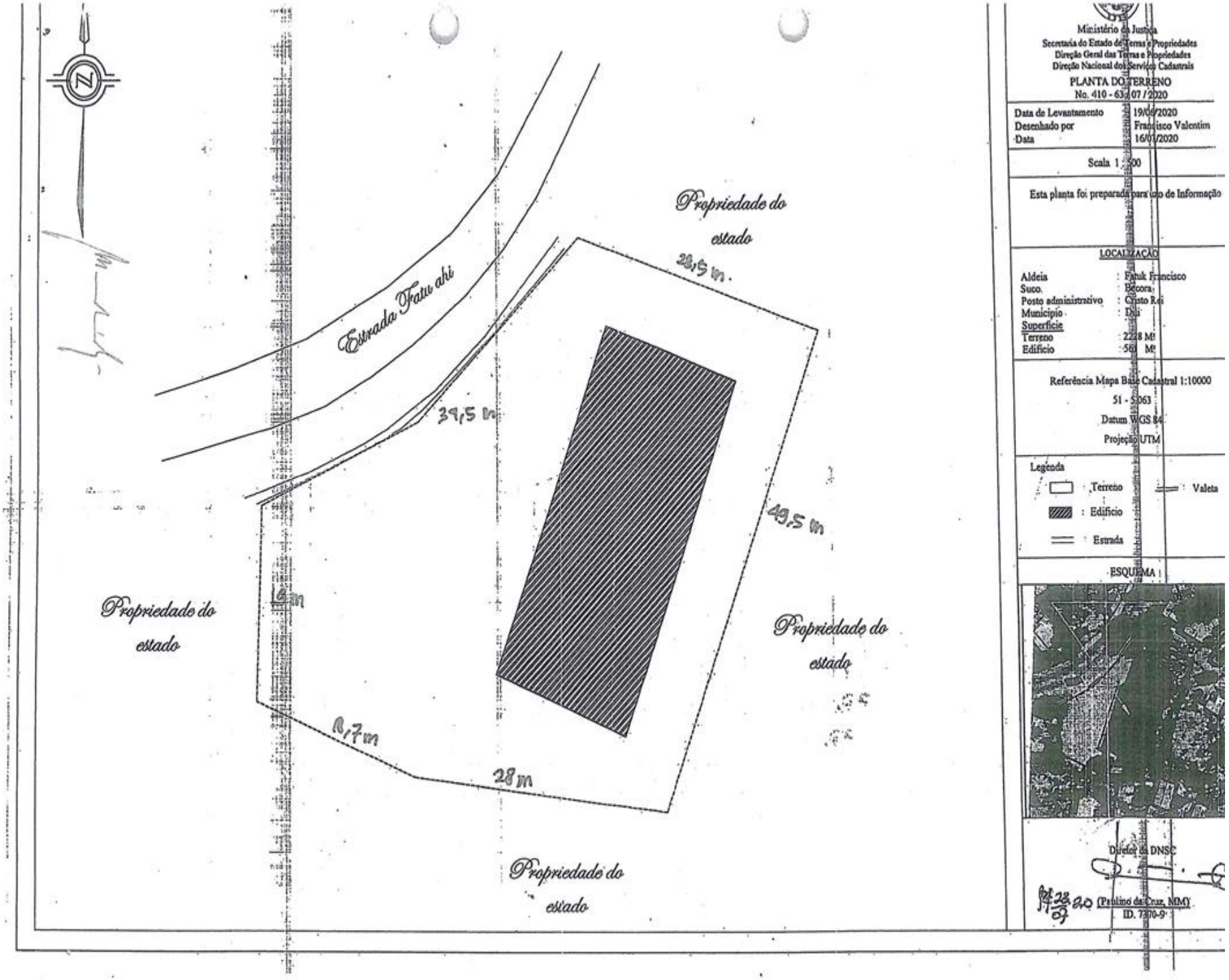
ATENSAUN

1. Atu ba vota sei lori kartaun ne'e.
2. Kartaun ne'e labele mudá tuir ita nia hakarak.
3. Kartaun ne'e STAE mak bele halo mudansa tuir lei.
4. Kartaun ne'e propriedade STAE nian.
5. Ba cidadaun Timor Oan sei hetan gratuito.

SECRETARIADO TÉCNICO DA ADMINISTRAÇÃO ELEITORAL
Rua Caicoli, Dili
Tel: (670) 331 7445
(670) 331 7446
www.stae-tl.org

Dili, 15/01/2020

EDGAR SEQUEIRA MARTINS
Director Geral



Ministério da Justiça
Secretaria do Estado das Terras e Propriedades
Direção Geral das Terras e Propriedades
Direção Nacional dos Serviços Cadastrais

PLANTA DO TERRENO
No. 410 - 63 - 07 / 2020

Data de Levantamento	19/06/2020
Desenhado por	Francisco Valentim
Data	16/01/2020

Scala 1 : 500

Esta planta foi preparada para uso de Informação

LOCALIZAÇÃO

Aldeia	: Fatuk Francisco
Suco	: Becora
Posto administrativo	: Cristo Rei
Município	: Dili
Superficie	
Terreno	: 2228 M²
Edificio	: 561 M²

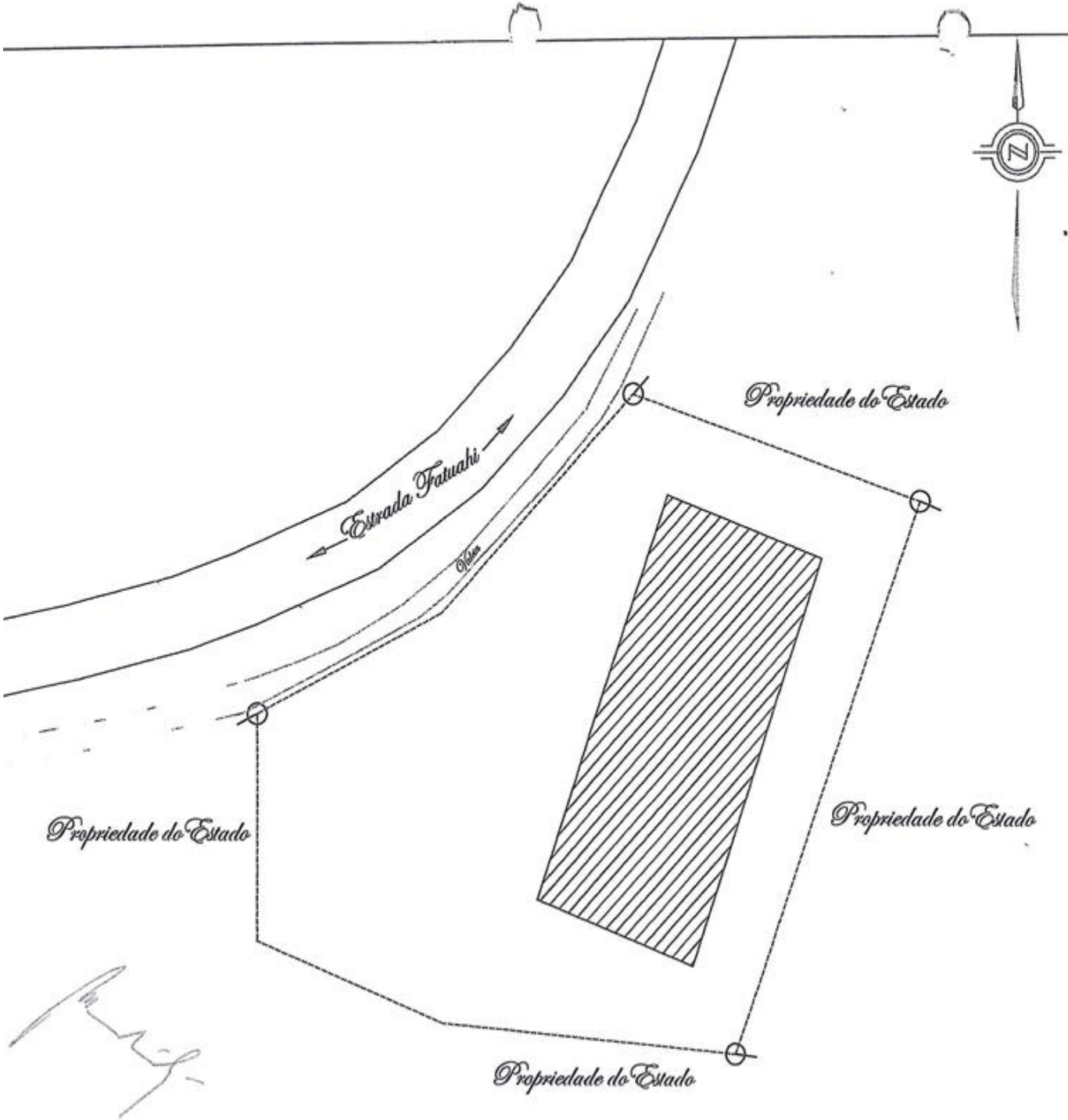
Referência Mapa Base Cadastral 1:10000
51 - 5063
Datum WGS 84
Projeção UTM

Legenda
: Terreno
: Edificio
: Estrada
: Valeta

ESQUEMA

Diretor da DNSC

28/07/20 (Paulino da Cruz, MMY)
ID. 7370-9



Ministério da Justiça
Secretario de Estado das Terras, e Propriedades
Direção Nacional de Terras, Propriedades e Serviços Cadastrais

PLANTA DO TERRENO

No. 410 - 63 / 03 / 2017

Ficheiro de Levantamento : -
Desenhado por : Ananias Sarmento Teixeira
Data : 23 / 03 / 2017

0 5 10 15 20 25

Scala 1 : 500

Notas :
(1) Esta planta foi preparada para o Uso exclusivo da Direção Nacional de Terras, Propriedades e Serviços Cadastrais e não pode ser utilizado para outro qualqer fim.
(2) Referência Google, Imagem Dili © 2017.

LOCALIZAÇÃO

Aldeia	: Mota Ulun
Suco	: Becora
Posto administrativo	: Cristo Rei
Municipio	: Dili
Areal	
Terreno	: 2228 M²
Edificio	: 565 M²

Esta planta foi preparada para o uso Contrato de Arendamento de Sr.Jose da Costa Soares (Trix).

PROPRIEDADE

Nome da Propriedade : Propriedade do Estado
Tipo : -

ESQUEMA

Legenda: Terreno : Edificio : Estrada : Valeta :

Referência NIP 1:10000
Mapa Base Cadastral

Direção Downstram
Edifício do Ministério das Finanças, Pisos 7, Aitarak Laran,
Díli, Timor-Leste, Apartado: 113, Tel : +670 73099995 / 73099996, Sitio Eletronico: www.anpm.tl

Data: 24 Novembru, 2020

ANPM/DS/S/20/1227

Hato'o ba: Sr. Cesario Dias Freitas Gusmão
Diretor Kompañía CDFG (Cesario Dias Freitas Gusmão) Unipessoal, Lda
Aldeia Fatuk Francisco, Suco Camea, Posto Administrativo Cristo Rei,
Município DILI

Kopia ba:

1. **Exmo. Sr. Victor da Conceição Soares, Ministro do Petróleo e Minerais**
2. **Sr. Florêncio Sanches, Diretor Executivu (CEO) SERVE**
3. **Sr. Rodrigo Mendonça, Diretor Jeral de Terras e Propriedades**
4. **Sr. Paulino da Cruz, Diretor Nacional dos Serviços Cadastrais**
5. **Sr. Matos da Costa, Chefe do Suco Camea**
6. **Sr. Florentino Soares Ferreira, Prezidente ANPM**
7. **Arkivu**

Asuntu: Notifikasaun ba Aprovasaun Fatin Hodi Hari'i Postu Abastesimentu Kombustível Foun ne'ebé lokaliza iha Aldeia Fatuk Francisco, Suco Camea, Posto Administrativo Cristo Rei, Município DILI

Ho respeitu,

Bazeia ba Autoridade Nacional do Petróleo e Minerais (ANPM) nia Regulamentu No. 3/2014, alterasaun da'huluk ba Regulamentu No. 1/2013 kona-ba Instalasaun no Operasaun ba Postu Abastesimentu Kombustível, maka fo ba ANPM instrumentu legál no tekniku nesesáriu atu bele halo jestaun didi'ak ba prosedimentu hodi avalia instalasaun sira ne'ebé existi ona, instalasaun foun sira, ba renova ka altera Postu Abastesimentu existe, nune'e mos sira-nia operasaun, atu bele asegura padraun saúde, seguransa, kualidade no meiu ambiente hodi apoiu dezenvolvimentu atividade Marketing ba setór Downstream nian iha República Demokrátika Timor-Leste.

Liu husi biban ida ne'e, ANPM Direção Downstream hakarak hato'o agradesimentu wa'in ba Kompañía Fitun Foun Unipessoal, Lda, ne'ebé fo koperasaun no kolaborasaun diak tebes durante verifikasaun preliminar ne'ebé hala'o husi ANPM nia Inspetor sira iha loron 05 fulan-Agustu tinan 2020.

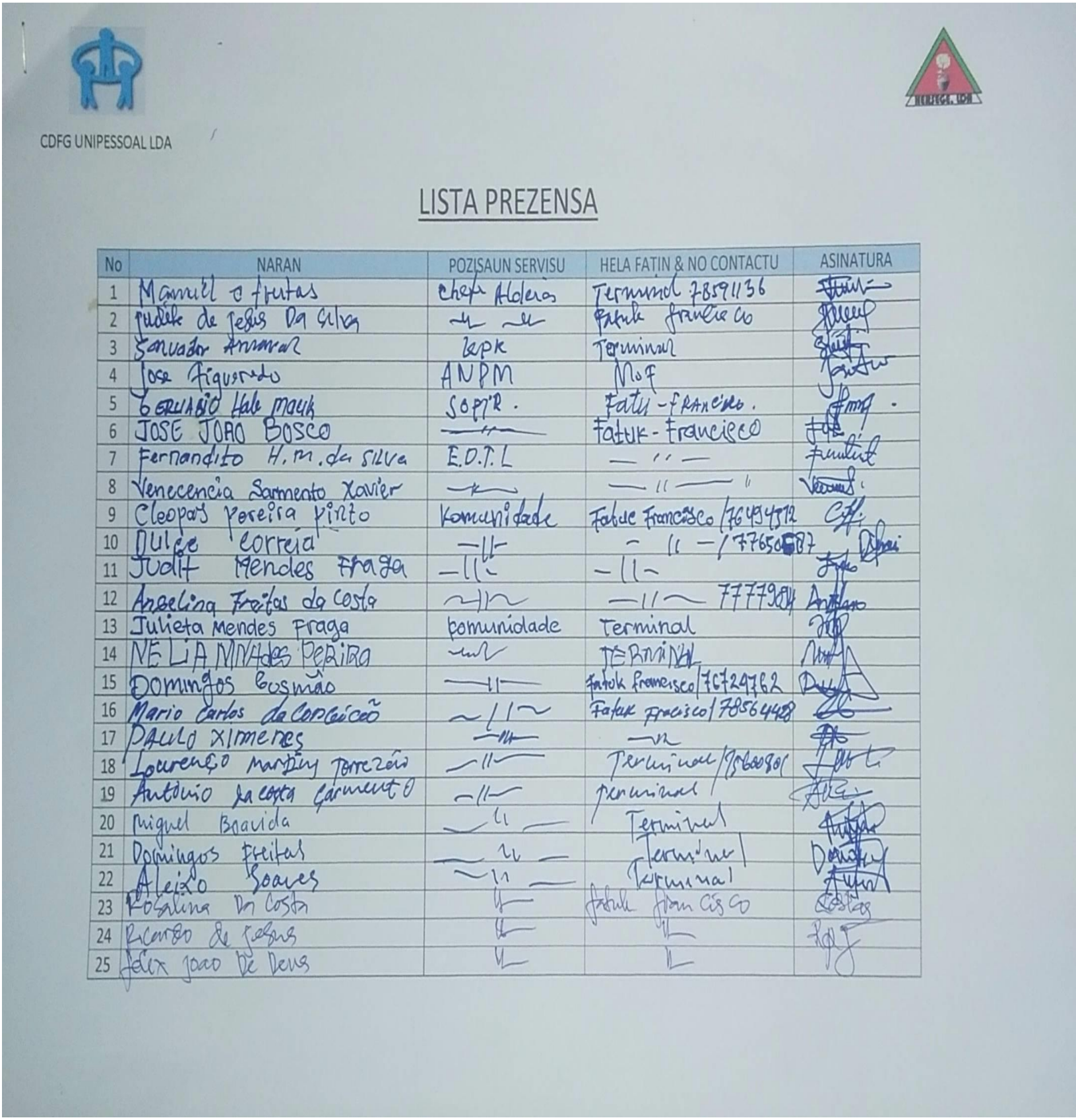
Ho aprovasaun ne'e, lahaluha, ANPM mos hakarak notifika ba Kompañia **CDFG (Cesario Dias Freitas Gusmão) Unipessoal, Lda,** atu hahu halo prosesu ba Lisensiamentu Ambiental tuir Dekretu-Lei No. 5/2011 kona-ba Lisensiamentu Ambiental. Submisaun ba aplikasaun ba Lisensiamentu Ambiental sei diriji mai Autoridade Nacional do Petróleum no Minerais (ANPM). Lisensiamentu Ambiental sai nudar rekezitu ida ba aprovasaun projetu.

Mak ne'e deit karta notifikasaun husi ANPM, ba Ita-bo'ot nia atensaun Ami hato'o obrigado wa'in.

Ho respeitu,

Nelson de Jesus
Diretor Downstream

ANNEX II
PUBLIC CONSULTATION



CDFG UNIPESSOAL LDA

LISTA PREZENSA

No	NARAN	POZISAUN SERVISU	HELA FATIN & NO CONTACTU	ASINATURA
1	Manuel o frutas	Chefe Aldeia	Terminal 78591136	
2	Pedro de Jesus Da Silva	" "	Fatuk Francisco	
3	Salvador Amaral	Lepk	Terminal	
4	Jose Figueredo	ANPM	MoF	
5	Gervasio Hale mauk	SOPIR.	Fatu - Francisco.	
6	JOSE JOAO BOSCO	" "	Fatuk - Francisco	
7	Fernandito H.M. da Silva	E.D.T.L	" "	
8	Venecencia Sarmento Xavier	"	" " "	
9	Cleopas Pereira Pinto	Komunidade	Fatuc Francisco 76454512	
10	Dulce correia	"	" " / 77650887	
11	Judit Mendes Fraga	"	"	
12	Anselina Freitas da Costa	"	" " 77779804	
13	Julieta Mendes Fraga	Komunidade	Terminal	
14	NELIA MENDES PEREIRA	"	TERMINAL	
15	Domingos Cosmão	"	Fatuk Francisco 76724762	
16	Mario Carlos da Conceição	"	Fatuk Francisco 78564488	
17	Paulo Ximenes	"	"	
18	Lourenço Martins Torrezão	"	Terminal 76608801	
19	Antonio da costa Carmento	"	terminal	
20	Miguel Boavida	"	Terminal	
21	Domingos Freitas	"	Terminal	
22	Aleixo Soares	"	Terminal	
23	Rosalina Da Costa	"	Fatuk Francisco	
24	Ricardo de Jesus	"	"	
25	Felix Joao De Deus	"	"	

CDFG UNIPESSOAL LDA

26				
27				
28				
29				
30				
31				
32				
33				
34				

Dili, 06 de Agostu de 2021

COMPANHIA CDFG UNIPESSOAL LDA,

CESARIO DIAS FREITAS GUSMÃO

HERSEGE LDA,

HERCULANO IVO LOPES GRANADEIRO

CDFG UNIPESSOAL LDA

MINUTAS DE ENCONTRU

NARAN	PERGUNTA/SUJESTAUN	RESPOSTA/SOLUSAUN
1 Jose Ricardo	- Aporta ami povo rai rahun - Lapangan ba comunidade uza ba jana	1- Iha prevensaun husi companhia atu minimiza - halo moro hasit husik [illegible] rai
2. Marito Carlos da C.	- moro halo hamot ba comunidade para minimiza rai rahun, no muda ulun	- 20% husi nitam, mandato - companhia pronto atu resolve [illegible]
3. Fernanda Ferreira	crue joven - ami suporta lanjuvan husi lukarak, ami populasaun sai hotu ga lae?	- Companhia sei prepara requezitus tuir regra husi ANPM atu minimiza
4. Boaventura da Costa	- populasaun sente fraku kuta buat hamuk hotu karik	- Tau lai conhe ha comissaun husi ema lai para alcansa labor [illegible]
5. Gaspar P. Pinto	- [illegible] hori parun urin uma [illegible] glao	- Sei consulta [illegible] hodi halo missa - propriedade nat ha compensasaun atu muda
	- Preokupasaun ba crue joven, - lukarak halo [illegible] muda ami sai hotu.	- prioriza joven local sertifika
	- halo ritual quando muda crue joven ho. - Bo dalan tangki	

CDFG UNIPESSOAL LDA

Dili, 06 de Agostu de 2021

COMPANHIA CDFG UNIPESSOAL LDA

CESARIO DIAS FREITAS GUSMÃO

CHEFE DO SUCO CAMEA

CHEFE DE ALDEIA FATUK FRANCISCO

JUDITE DE JESUS DA SILVA

HERSEGE LDA

HERCULANO IVO L. GRANADEIRO

ANNEX II
BASELINE INFORMATION

Hersege Lda, Mining and Environmental Consultant
Rua Taibessi, Alcrin, Lahane Oriental, Nain Feto, DILI, TIMOR LESTE
(+670) 77522363 / 76717048 / 76641553
hersegeconsultant10@gmail.com

INITIAL MEASUREMENT

Coordinate	8°32'24" R5°36'47"	Time	12:30
Date	14-10-2020	Temperature	34°c
Humidity	64% RH	Wind Speed	2-3 M/s
PM 2.5	12 Ug/m3	Wind Direction	NORTH TO SOUTH
PM 10	16.2 Ug/m3	CO_2	0
NOx	0	CO	0
O_3	0	SOx	0
pH Soil	7.0	Temperature Soil	32°c
Soil Moisture	DRY	Water Temperature	30°c
Water TDS	6.3 PPM	pH Water	6.30°c

Noise Measurement

No	dBA	No	dBA	No	dBA	No	dBA
1	33.5	31	49.1	61	58.6	91	53.8
2	39.1	32	43.0	62	64.0	92	42.1
3	54.8	33	37.0	63	52.3	93	44.4
4	42.8	34	43.2	64	61.3	94	38.6
5	36.1	35	50.3	65	57.1	95	38.7
6	36.5	36	62.7	66	54.6	96	38.9
7	37.7	37	47.7	67	60.6	97	49.2
8	49.0	38	59.6	68	50.8	98	50.6
9	60.6	39	50.2	69	42.1	99	44.4
10	39.7	40	55.2	70	55.6	100	60.7
11	46.0	41	41.2	71	46.3	101	57.0
12	57.2	42	56.2	72	41.6	102	39.1
13	37.0	43	50.1	73	58.6	103	36.7
14	39.1	44	60.8	74	60.8	104	37.3
15	50.1	45	41.3	75	60.2	105	36.2
16	58.2	46	36.2	76	40.2	106	39.6
17	48.1	47	37.0	77	41.0	107	47.1
18	45.5	48	43.5	78	37.0	108	57.8
19	45.7	49	52.7	79	39.9	109	41.6
20	56.7	50	55.9	80	35.5	110	37.0
21	37.7	51	54.1	81	36.6	111	41.1
22	50.6	52	52.5	82	34.6	112	34.6
23	33.2	53	53.3	83	34.0	113	32.9
24	32.8	54	57.1	84	47.3	114	32.5
25	36.6	55	48.1	85	57.3	115	30.2
26	33.3	56	55.6	86	56.2	116	31.7
27	37.7	57	48.7	87	50.7	117	34.5
28	44.5	58	53.2	88	55.4	118	32.9
29	46.8	59	62.6	89	50.7	119	31.9
30	52.5	60	60.5	90	54.2	120	33.5