CGGC – DL - WIKA JOINT VENTURE (CDW JV)

JOINT VENTURE

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

C-ESMP

ROAD REHABILITATION WORKS

Site Specific Contractor Environmental and Social Management Plan

CLIENT:

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Disclaimer
CESMP Road Rehabilitation Plan is a living document to address potential E&S impacts for the road rehabilitation work commensurate to the type, scale and nature of the work- based on the assessment undertaken by CDW JV in consultation with relevant stakeholders. This document will be updated should there is new potential adverse E&S impact and it will be reviewed periodically to ensure its effectiveness and to accommodate continual improvement. The updated or revised CESMP will be redisclosed at CDW-JV and PLN website and the final version of this CESMP is the one at CDW-JV and PLN website.

Revision sheet

REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL
New V1.0	30 Jan 2023	Based on EPRP 230119 V4.0.	

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Introduction

The CGGC- DL E&I - Wika Joint Venture ("CDW JV") is the 'main' contractor for Upper Cisokan Pumped Storage Project (UCPS) (refer to contract agreements No.0519.PJ/DAN.02.01/DIR/2015–Package 1 Lot 1A and No.0520.PJ/DAN.02.01/DIR/2015–Package 1 Lot 1B). Since the Commencement of Work was issued on 6th September, 2022, wet season weather events have caused a series of slips and slides along the Permanent Access Road (PAR). Some damage of the road body and affect to people's properties has occurred and there is ongoing land instability and sediment discharges. The road requires immediate repairs to minimize the environmental and social harm including adverse impact to the neighbouring societies and to ensure the road is suitable for heavy traffic once construction starts.

Appendix 1 provides a review of the geological survey and Appendix 4 shows the landslide locations in detail.

CDW JV will be contracted to conduct the emergency construction road rehabilitation for 16 spots along the PAR as a variation of works to their existing contract. Under the Agreement for Handover of the PAR, in clause 6, CDW JV are required to prepare and implement a Contractor Environmental and Social Management Plan (C-ESMP) to properly manage the environmental and social impacts.

Currently the main works C-ESMP is being prepared in parallel. It contains the management system in Chapter 1 and a number of Sub-Plans in Chapter 2 and a number of Management Practices and Specifications in Chapter 3. This Sub-Plan will be operated as a stand-alone, site specific plan until such time as the main works C-ESMP is reviewed and cleared by PLN and the World Bank. After the main works C-ESMP is cleared by the World Bank, this will become a Sub-Plan under Chapter 2.

This plan includes:

- Description of work area to which this plan relates
- Sensitive receptors along the PAR
- Team roles and responsibilities (specific to road works and summarised from CESMP Chapter 1)
- Description of workforce recruitment and working hours for the 2022 emergency road rehabilitation works
- Typologies of road rehabilitation works
- Hazard identification and risk analysis (summarised from CESMP Chapter 1)
- Environmental, Social, Health and Safety Risk Assessment and Mitigation Measures

his plan will be reviewed and updated as per the Management of Change process described in the main works C-ESMP Chapter 1. All management systems relating to hazard and risk identification, preparation of standard operating procedures/work method

statements/JSEA, monitoring, auditing, corrective action management, incident management and emergency response and management will be carried out by CDW JV in accordance with the C-ESMP Chapter 1.

1 Purpose

The purpose of this Road Rehabilitation Sub-Plan is to describe the environmental, safety, health and security management for PAR emergency works required as a result of the storm events of 2022 and for any other road rehabilitation requirements for UCPSPP in the future. It covers all typologies of activities that are expected for road rehabilitation. Details of the emergency work for 16 locations is presented in Appendix 4.

2 Work Area

2.1 Background and Location

The PAR was constructed between 2012 and 2015 for the UCPSP and rehabilitated in 2019-2021. It is approximately 27 km long from the Cipari Junction to the lower dam, and has a short new side road to the upper dam location. It does not provide any connectivity to other communities or districts, its primary purpose is to access the hydropower site. Prior to the road construction the residents would use bike trails and footpaths to access a small public road on the other side of the valley. It is a controlled access road; PLN has a security gate and guard post at Cipari Junction, the eastern end of the road. Residents are able to use the road. Because the road only connects a small number of residential properties to Cipari Junction the road use is very low.

The PAR and the location of road works (white arrows) is shown in ***Figure 1***.

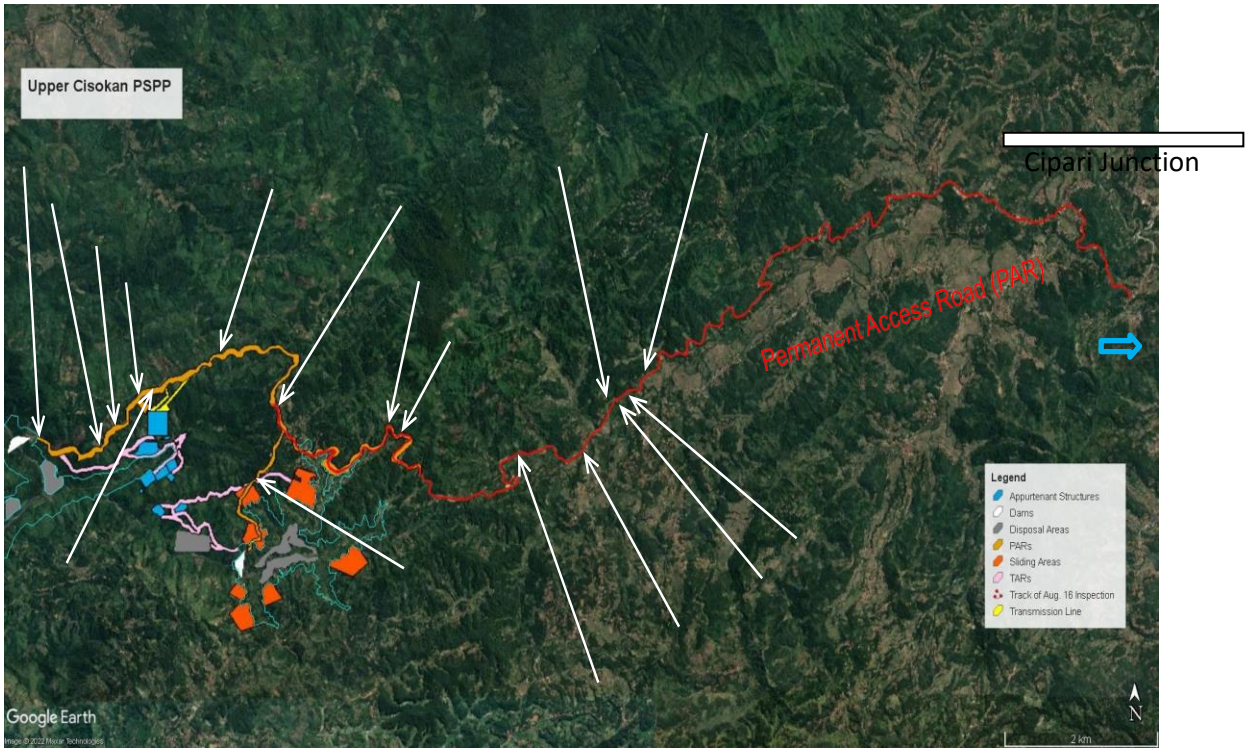


Figure 1 Permanent Access Road and the Location of Emergency Works (White Arrows)

2.2 Sensitive Receptors in the Work Area

Appendix 6 shows the location of sensitive receptors. Appendix 3 is a letter to the community and Appendix 5 is the consultation plan.

Table 1 Sensitive Receptors in the Work Area

Sensitive receptor	Risks
Households adjacent to the road: there are few houses adjacent to the road because it is a new road. There are some near the start of the road.	They will be sensitive to road works vehicles and heavy machinery using the road. Moderate to high probability may experience noise, dust, vibration and traffic related safety risks.
Road users: The road is not used by a large number of travellers. It is a secure road and only the local residents are able to access it from the Cipari junction via the PLN security gate. Those that use the road are used to it being in a damaged state, being under repair and being maintained and are currently having to use it in its damaged and unsafe state. Road users are cars, motorbikes and pedestrians.	Moderate likelihood of risk from heavy machinery, falling debris, slope instability, journey delays, with potentially fatal consequences.
Women and children	Vulnerable to sexual exploitation and harassment, violence, from foreign/imported

	workers. Less risk at this time compared to the main works because workforce is small and locals will be recruited where possible. Small international workforce will be employed (refer Table 3).
Biodiversity Important Areas and the 10 key species of interest from Biodiversity Management Plan.	Low risk of harm since the footprint of works is small and areas have been disturbed since at least 2011 when road construction started. But some further, minor habitat disturbance and avoidance behaviour could occur.
Cultural heritage	Low risk of discovery or damage as all PCR have been identified during ESIA preparation and during road construction. No PCR are located in the road corridor or adjacent to the road. Graves that were identified in the ESIA were moved during original road construction. Other identified PCR in the ESIA are well outside of road rehabilitation works zone. Chance finds are possible.

3 Roles and Responsibilities

The organizational structure and staff capacity of the CDW JV in the key management areas are shown **Error! Reference source not found.**3.1.

Communication mechanism for ESHS management structure which describes how information is shared and acted on is shown in **Error! Reference source not found.**3.2.

Figure 2 Organization Chart

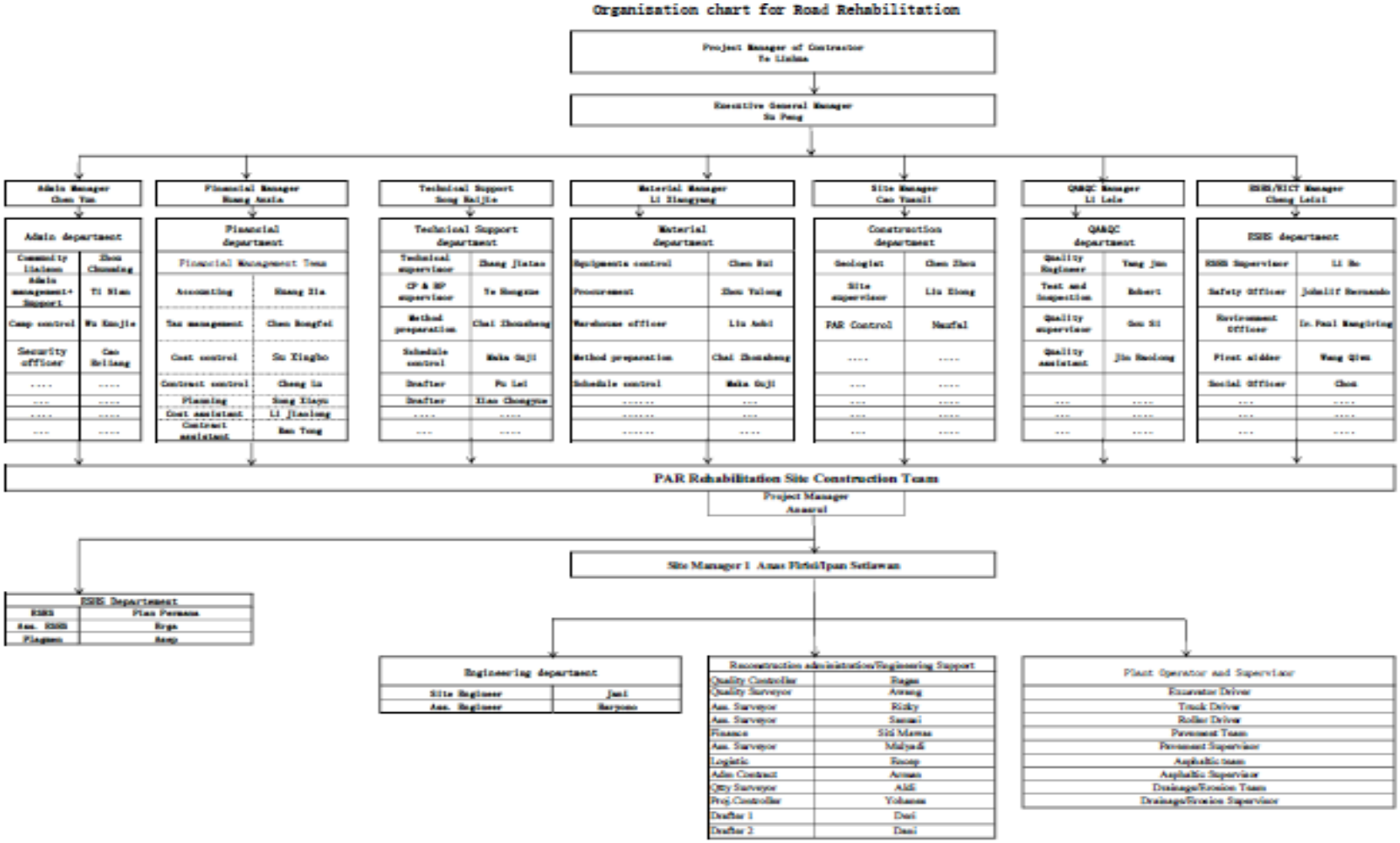
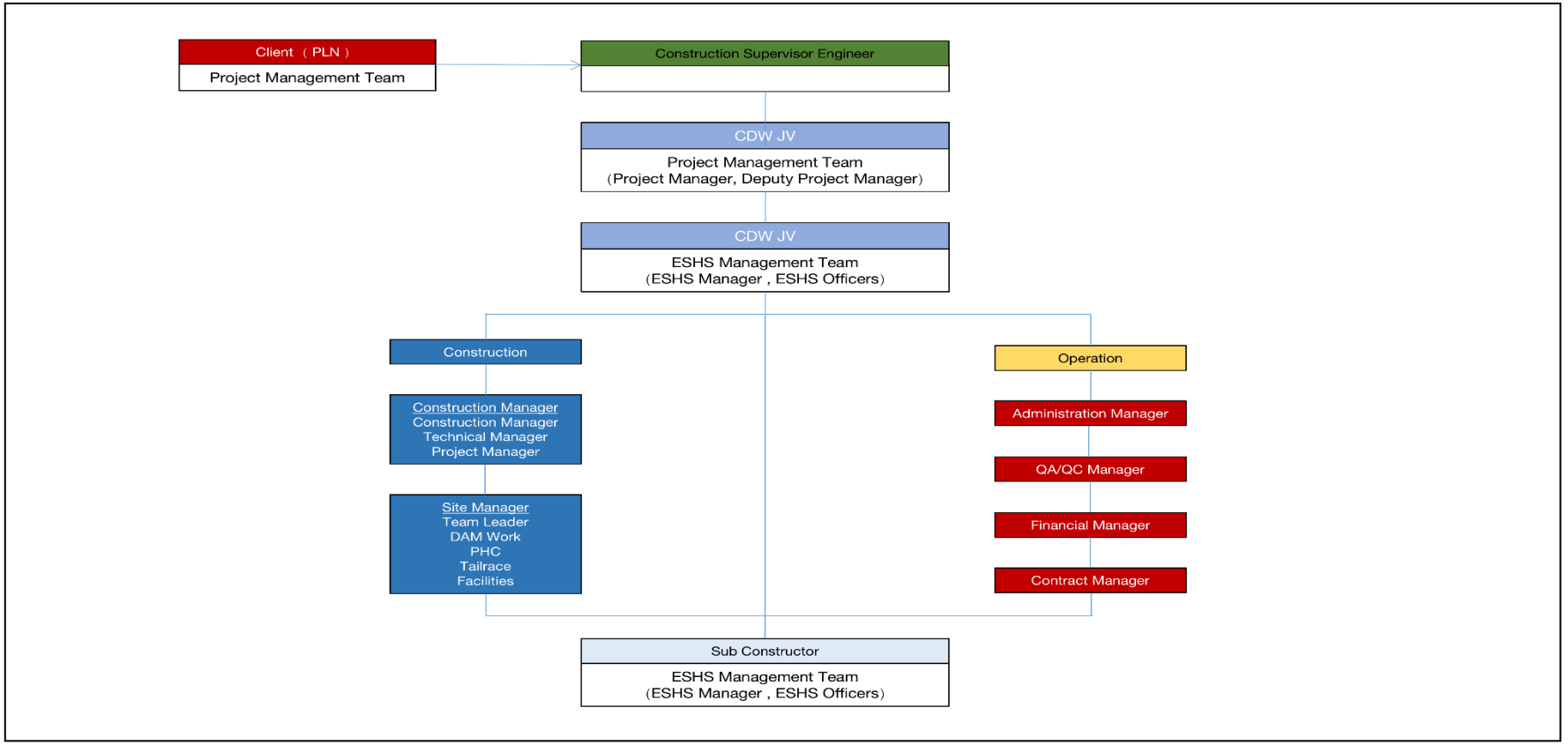


Figure 3 Reporting Lines



The CDW JV report to the Construction Supervision Engineer (CSE), PLN-E in Joint Venture with Nippon Koei and Newjec. The roles and responsibilities of key Environmental, Social, Health and Safety (ESHS) personnel in the management of the C-ESMP Road Rehabilitation are described in the following sections.

3.1 Project Manager

The Project Manager provides day-to-day leadership and management of the Project to ensure the implementation of work according to the schedule and costs, and compliance with the Contract and the C-ESMP. Specifically:

- Ensure all personnel and subcontractor workers understand practical implementation of the C-ESMP requirements and commitments.
- Ensure there are sufficient resources available to implement the procedures outlined in the C-ESMP Sub-plans management practices and specifications, in particular to ensure that there is sufficient capacity for staff needed.
- Participate on the Project OHS Committee (Board member).
- Ensure all corrective and preventive measures in place and ensure manage so that in the event of non-compliance occurs, appropriate measures can be implemented accordingly.
- Lead the changes in the C-ESMP, supporting documents, policies and Procedures (and supervised by ESHS Manager) when the Management of Change is implemented.

3.2 ESHS/EICT Manager

The ESHS Manager of CDW JV is responsible for the management and implementation of all ESHS related activities (including the C-ESMP). Specifically:

- Supervision of the Project's implementation of all environmental, social, health, and safety activities at the project site (as defined in the C-ESMP), including:
- Ensure all necessary ESHS management procedures are in place (in the C-ESMP and through internal CDW JV documents).
- Ensuring all necessary ESHS training is provided to staff.
- Ensuring all necessary ESHS materials and equipment are available at each site for use.
- Provisions and work methodology in relation to pollution control and implementation of appropriate environmental prevention.
- Directly manages activities of the ESHS Officers, which include the Environmental Protection Officers, Safety Officers, and Community Liaison Officer.
- Responsible for keeping the Contractor's ESHS documents up to date, and overseeing changes to these documents when needed, including:

- Project ESHS Policies.
- Project Hazard Identification and Risk Assessment and Control (HIRARC) procedures
- Project and/CDW JV working procedures (C-ESMP,SOPs, work methods).
- Supervising the Management of Change Process (Section 1.9.2 and 1.9.3) that led by Project Manager.
- Oversee site-level ESHS inspections and audits, and implementation of non-compliance processes and corrective actions.
- Regularly review all ESHS reports from ESHS Supervisors and develop plans to manage or mitigate any ESHS impacts raised.
- Participate on the Project OHS Committee (Board member).
- Prepare monthly reporting on C-ESMP implementation and compliance.
- Participate in weekly and monthly progress meetings with the Employer and Engineer.
- Monitor the implementation of environmental, social, health, and safety mitigation measures and the contractor's compliance with environmental protection, pollution prevention and control measures, and contractual requirements.
- Participate in any site inspections and audits undertaken by the Client, Supervising Engineer and/or authorized 3rd parties and support implementation of any corrective actions.
- Provide the point-of-contact for the CDW JV on any issues related to ESHS emergencies and/or serious incidents and participate in investigations of incidents that involve environmental issues and support development and oversight of corrective action plans.

3.3 Safety Officer/Administrator

The Safety Officer's role is inspecting and enforcing occupational health and safety (OHS) requirements across the Project work sites as described in C-ESMP Chapter 1. Specifically for road rehabilitation the Safety Office will support the ESHS Manager regarding:

- Safe working conditions.
- The availability of PPE and safety equipment and enforce the proper use of PPE and other safety equipment.
- Required OHS training and qualifications for work.
- Monitoring the preparation and implementation of emergency response plans,

  equipment, and procedures.
- Coordinate and report on routine OHS monitoring to the ESHS Manager and

support communication with other managers on OHS monitoring and/or auditing requirements and any issues identified during monitoring.

- Review each Job Safety Assessment/work permit and identify OHS risks and controls related to each job.
- Undertake routine walk-arounds,
- Monitor for non-compliance issues, issue stop work orders if unacceptable conditions are found, and take necessary action to improve such working conditions, and/or actively support implementation of corrective actions.
- Supporting the implementation of the incident response and recovery procedures.

3.4 Environmental Protection Officer

The Environmental Protection Officer's (EPO) role is inspecting and enforcing environmental control requirements across the Project work sites as described in C-ESMP Chapter 1. Specifically for road rehabilitation the EPO will support the ESHS Manager regarding:

- observations and inspections of procedures and systems for managing impacts
  to erosion, sediment control, wastewater treatment and discharges, land clearances, physical cultural resources, biodiversity, air quality, noise levels, vibration, water abstractions, water quality, and waste management during road works.
- Required training and qualifications for work relating to environmental controls.
- Monitoring the preparation and implementation of emergency response plans,
  equipment, and procedures relating to environmental aspects (including spills and natural hazards).
- Coordinate and report on routine environmental control and environmental impact monitoring to the ESHS Manager and support communication with other managers on monitoring and/or auditing requirements and any issues identified during monitoring.
- Review each JSEA/work permit and identify environmental risks and controls related to each job.
- Undertake routine walk-arounds.
- Monitor for non-compliance issues, issue stop work orders if unacceptable conditions are found, and take necessary action to improve such working conditions, and/or actively support implementation of corrective actions.

- Supporting the implementation of the incident response and recovery procedures related to environmental risks and impacts.
- Collecting monitoring data and reporting environmental data and statistics.

3.5 ESHS Administrator

- Compile internal ESHS Audit reports, and follow up the documented closeout of audit action items from both internal and external audits;
- Prepare and compile complaint responses in consultation with the ESHS Manager;
- Maintain the corporate roster for ESHS personnel movements;
- Maintain document control requirements for ESHS documentation received;
- Manage ESHS system requirements for the head office in consultation with the ESHS Manager;
- Provide administrative support to project ESHS personnel in relation to safety equipment ordering and other general administrative requirements;
- Assist the ESHS Manager with the management of workers compensation and injury management documentation and claim files. Administration Manager / HR Manager will forward the documentation and claim files to BPJS for follow up the compensation workers;
- Assist the ESHS Manager to maintain ESHS registers and databases;
- Assist the ESHS Manager in the compilation of monthly reports;
- Ensure the efficient distribution of internal and external HSE flyer and booklet, as directed by the ESHS Manager and/or ESHS Supervisors; and
- Arrange the health and wellness programs (sports, etc.) in consultation with the ESHS Manager.

3.6 Community Liaison Officer

Project level management of the Contractor's stakeholder engagement activities, including directly engaging with residents and other stakeholders in the affected communities, as well as participating in Project-level stakeholder engagement activities under the direction of PLN's stakeholder engagement teams (i.e., Grievance Task Force meetings, public consultations, and disclosures, meetings with key stakeholders as defined by PLN or as needed).

The community liaison officer (CLO) is managed by the ESHS Manager and is responsible for managing the following objectives:

- Manage information disclosures, and formal and informal communications between the CDW JV and local community stakeholders.
- Identify sensitive receptors that may be impacted by noise, dust, blasting or

other aspects of Construction activities (such as dwellings, schools, etc.) and work with the Construction Manager, Site Managers, Supervision Engineer to identify and implement mitigation measures;

- Engage respective CDW JV departments in order to conduct forum group discussion with local government and community.
- Coordinate CDW JV involvement in stakeholder engagement activities with the PLN stakeholder engagement and/or community relations team.
- Oversee and coordinate between the Contractor's external grievance mechanism the Project's grievance mechanism, participate in the Grievance Task Force's (GTF) activities, and support implementation of corrective actions under CDW JV responsibility. The CDW JV will have a role in PLN's management of the GRM, including reporting grievances and working with PLN, PLN's GRM service provider, and to investigate and resolve grievances.
- Oversee and coordinate with GBV complaint team and service provider on responses to incidents and grievances related GBV/SEA/SH that happened in the community level due to contractor's work in accordance with the provisions of the GBV Sub-plan.
- Provide information on community engagement and grievances to the ESHS Manager for reports.
- Conduct regular (quarterly or as required by PLN) engagement with local communities, in order to understand community concerns and perceptions regarding the Contractor's activities and works, including:
- Information availability and understanding of Project status and activities in their areas;
- Recruitment and access to benefits from the Project;
- Disturbances or conflicts caused by the Contractor's works in their area;
- Review inputs from stakeholder engagement activities, and report results of stakeholder engagement to the relevant managers, PLN, and/or Supervising Engineer;
- Communicate with PLN on stakeholder engagement processes and issues raised by local communities.

3.7 Security Officer

The Security Officer will oversee the security of the work sites and accommodation to prevent public access and public harm, as described in Chapter 1.

3.8 First Aider

- Assess the situation quickly and calmly to get an understanding of what happened..
- Comfort, reassure, stay calm and take charge.
- Protect the casualty from any danger.
- Prevent infection between others workers and Casualty.
- Asess the casualty
- Give first aid treatment, such as CPR or applying pressure to bleeding wounds.

  Life-threatening injuries and conditions must be prioritised before giving treatment to less serious cases.
- Arrange for the right kind of help.

3.9 Social Officer

- Finding out what type of care and support the person needs
- Doing assessments to make sure people continue to get the right care
- Offering information and counselling
- Intervening when people need support or safeguarding
- Keeping records and writing reports.

3.10 Construction Manager and Site Managers

Manage all aspects of all construction in their respective work areas, including developing construction execution plans and work schedules, prepare work procedures, work method statement, Job Safety and Environmental Analyses (JSEA) and other required documents related to construction works. Responsible for maintaining all site safety and environmental procedures, ensuring staff compliance and maintaining appropriate up to date documentation in the file including but not limited to:

- Sign in and out procedures in their work area
- ESHS inductions and training for all staff, subcontractors and visitors
- Project safety signage
- Daily Site Safety meeting minutes (to be done every workday prior to starting work at the actual worksite so real-time hazards can be discussed)
- Weekly Toolbox meeting minutes (to be done once per week on Monday mornings)
- Make available all PPE items necessary and ensure all workers are using them

wearing them correctly

- Ensure first aid kit, fire extinguishers, spill kits, drinking water and other ESHS equipment are available at work areas and replenished regularly.
- Incident management and reporting.
- Establish and distribute the Emergency Procedure Information Communication and H&S and Environmental reporting to Construction Supervision Engineer and PLN
- Department of Labour notifications (if any) such as "Particular hazardous works form" for notifiable works, 24 hours prior to commencement of the task.

3.11 Site Supervisors

Will consistently maintain a safe working environment by means of: -

- Reporting all new hazards to Management and their crew
- Report all accidents and incidents to Management and participate in incident/accident review and investigations.
- Utilise the project resources to eliminate or minimise hazards and risk
- Ensure they are fully conversant with and implement all aspects of the Health,

  Safety and Environmental Plan including adherence to rules, PPE and safe working practices.
- Follow fair and reasonable instructions given by Management.
- Task Supervisors are bound to abide by the health and safety procedures detailed in this PAR Rehabilitation works.

3.12 Construction Workers, Subcontractors and Suppliers

Will consistently maintain a safe working environment by means of: -

- Reporting all new hazards to their Task Supervisor or Management
- Report all accidents and incidents to their Task Supervisor in the first instance.
- Ensure they are fully conversant with all aspects of the Health, Safety and Environmental Plan including adherence to rules, personal protection equipment and safe working practices.
- Follow fair and reasonable instructions given by their Managers and Supervisors.

Construction workers are bound to abide by the health and safety procedures detailed in this PAR Rehabilitation works.

3.13 Administration/Human Resources Planning Team

Manage the staffing process, including recruiting, interviewing, hiring, and on boarding as per the Labor Management Procedures of the Project, including avoiding hiring children (under the age of 18) and providing gender equity and equality across the labor management practices.

Managing the labor grievance mechanism.

3.14 Planing & Cost

Overseeing planning Construction Schedulle plans and implementations, advising stakeholders on planning policy and regulations and to ensure that the company's expenses are consistently in accordance with the agreed budget plan.

3.15 Financial Manager

In charge of accurately tracking income and expenses, monitoring budgets, reporting on the financial status of both projects and the company, and managing cash flow

Manage an emergency fund that can be issued at any time if needed

3.16 Material Manager

Oversee the planning, procurement, storage, control, and distribution of materials according to project needs

3.17 Contact Details for Key Staff, Stakeholders and Emergency Services

Table 2 Contact Details for key staff, CSE, PLN, stakeholders and emergency services

Role	Person and Contact Details
PLN Project Manager	Mrs. Arrum Rizkiani Nugrahanti +628112235581
PLN Assistant Manager of Permit and General Affairs	Erdiansyah Dharmika Putra +62811211759
CSE Representative	Mr. Netto Mulyanto +62 811-8101-958 Mr Tsutsui Shoji +62 813-8473-5936
CSE Supervisor on site	Mr. Yoshiyuki Matsui +6282123071628
CSE Environmental Manager	Mr. Priyono +628129490253
CSE Safety Engineer	Mr. Benedictus Dwicky +6282122746335
CSE Social Manager	
Project Manager	Mr. Ye Lihua +62 81214408755
Construction Manager	Mr. Cao Yuanli +62882 1867 7581
ESHS Manager	Mr Cheng +6282261027588
Safety Officer	Mr. Li Bo +6282120557879
Environmental Protection Officer	Mr. Paul +6285211426038
Community Liaison Officer	Mr. Zhou Chunming +62812 6839 4709
Nearest Hospital	Karisma Cimareme Hospital City: Padalarang- West Java (022) 6866221
Cipongkor Public Health Center. The distance from site office is 1,3 km and it takes 3 minutes by car	Telp. (022) 68197396
Cililin Firefighter. The distance from site office is 23,2 km and it takes 44 minutes	Telp. (022) 6940113
Sindangkerta Police Station. The distance from site office is 14 km and it takes 31 minutes by car	Telp (022) 6940223
Police 110 Fire Brigade 113	Ambulance 118/119

4 Workforce Recruitment and Management

Manpower Planning which is also called the Human Resource Planning Division has the obligation that consists of putting right number of people, right kind of people at the right place, right time, doing the right things for which they are suited for the achievement of goals of the organization.

4.1 Workforce requirements

The CDW JV will recruit workers for the road rehabilitation. Table 3 presents typical workers position required for road rehabilitation work and the number of workers required for 2022 emergency road rehabilitation work. For future similar activities, the number of workers will be calculated upon confirmation of the work scale.

Table 3 Human Resource Planning

Position	Number of Workers				
	Skilled	Unskilled	Total	Local	Foreign
CDW JV					
Project Manager	1	0	1	0	1
Executive General Manager	1	0	1	0	1
Admin Manager	1	0	1	0	1
Community Liaison Officer	2	0	2	1	1
Admin management+ Support	3	0	3	1	2
Camp control	1	0	1	0	1
Security officer	3	0	3	2	1
Financial Manager	1	0	1	0	1
Financial Management Team	8	0	8	0	8
Material Manager	1	0	1	0	1
Equipments control	1	0	1	0	1
Procurement	1	0	1	0	1
Warehouse officer	1	0	1	0	1
Site Manager	1	0	1	0	1
Geologist	1	0	1	0	1
Technical Support	7	0	7	0	7
Site supervisor	1	0	1	0	1
PAR Control	1	0	1	1	0
QA&QC Manager	1	0	1	0	1

QA Team	4	0	4	1	3
ESHS Manager	1	0	1	0	1
Safety Supervisor/Administration	1	0	1	0	1
Safety Officer	1	0	1	1	0
Environment Officer	1	0	1	1	0
Social Officer	1	0	1	1	0
First aidder	1	0	1	0	1
PAR Rehabilitation Site Construction Team					
Project Manager	1	0	1	1	0
Safety Officer	1	0	1	1	0
Assistance Safety Officer	1	0	1	1	0
Flagger	0	1	1	1	0
Site Engineer	3	0	3	3	0
Ass. Engineer	1	0	1	1	0
Reconstruction Admin /Engineering Support	12	0	12	12	0
Plant Operators and Supervisors	20	10	30	30	0
Total staff number	86	11	97	59	38

CDW JV will hire mostly local crew for the road rehabilitation work. Priority will be given to the local community members from Bandung Barat and Cianjur Regency who meet the requirements of the position. Further information about hiring policy and procedures are below.

4.2 Work Hours

Workers will work a total of 48 hours a week.

Workers will work :
Monday to Saturday, 8am to 5.00pm, with a lunch break of 1hr, 12 – 1pm.
Friday there will be a rest period between 11.15am and 1.30pm to allow for prayers.
Workers will be paid overtime for the additional 8 hours a week on Saturday 8am to 5.00pm.

4.3 Hiring Policy and Procedures

In the process of employee selection, CDW JV will give preference to local workers. CDW JV is working to provide Bandung Barat and Cianjur Regency citizens with opportunities to obtain more highly-skilled roles within the Project though the provision of training.

Priority will be given to residents of our local community, we will only seek to employ locally to ensure that our employees can return home to their families each day, to avoid the logistics of accommodation, and to mitigate the risk of conflict amongst crew.

CDW JV commits to ensure that recruitment and hiring practices are fair and transparent and that we take into consideration local conditions and expectations to the greatest extent possible. Discrimination in relation to recruitment and employment on the grounds of race, gender, age, disability, sexual orientation, or religious or political beliefs is not permitted under any circumstances. The policy recruitment carried out by CDW JV will be open to the public (male and female). CDW JV is committed not to employ underage workers (children under the age of 18 years).

Dissemination of all recruitment advertisements for the Project is controlled by CDW JV. Key elements in relation to information provision include the following:

- CDW JV and its subcontractors will ensure that relevant announcements are made for all available vacancies;
- Means of information distribution include head hunters, the Ministry of Labor system, local government, community notice boards, town /village halls. Supplementary disclosure materials will be available at these forums
- For specialist roles, professional recruitment firms may also be used.
- All CDW JV and subcontractor employees will enter into voluntary written contracts.

Working together with local government to gather qualified workers from the project specific impact area. Initial screening by the Human Resources department to develop a short-list of suitable candidates. Prior to hiring skilled labors, CDW JV will conduct initial face-to-face interviews with short-listed candidates with the first level selection committee, including the Direct Supervisor and Recruitment Assistant. Skills and capability testing will be undertaken where appropriate. Following the selection of the worker the Administration Department will perform reference checks and process the employment contract.

4.4 Worker's Code of Conduct

The Code of Conduct, documenting the worker's agreement to meet behavioural standards and not cause harm to others, is attached as Appendix 7.

We will:

- Include the Code of Conduct in our project inductions and run through point by point
- Include the Code of Conduct in all employment agreements on the project
- Investigate and action all concerns raised
- Terminate employment after validation of issue in the event of serious misconduct

4.5 Training

CDW JV will provide full, job specific training to all workers and sub-contractors. CDW JV recognizes the importance of offering developmental training to all personnel to provide a competitive edge for future business development. CDW JV also have an obligation to ensure that all personnel are trained to the standards set by Indonesian legislation, PLN and World Bank.

Regarding ESHS training, refer to Section 11 below and to Section 1.11.1 of CESMP Chapter 1 which is the Project Training Plan and is relevant to worker training for the Road Rehabilitation Works.

4.6 Retrenchment

The key policy for retrenchment will be to deploy workers to other construction activities once the main construction works begins.

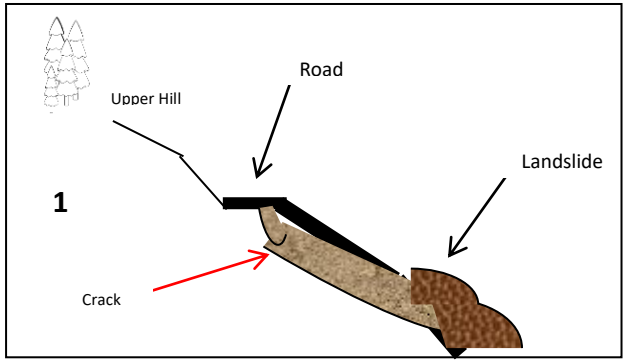
5 Hours of Operation for Road Rehabilitation Works

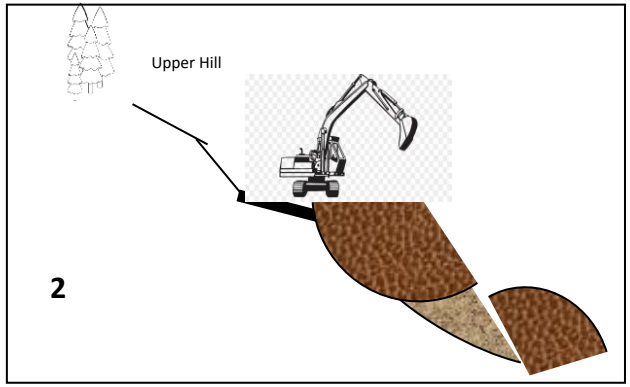
Road rehabilitation work will be completed Monday to Saturday 8am to 5.00pm. Night time works are not required. The sites will be secured at the end of each day, with barriers and signs to keep road users safe and outside of active work areas.

6 Road Rehabilitation Works Typologies

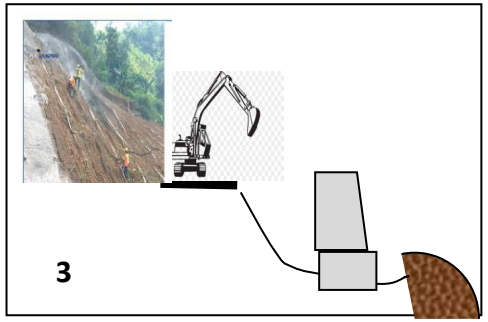
The type of works covered by this Sub-Plan are as follows:

6.1 Debris removal and filling included compacting



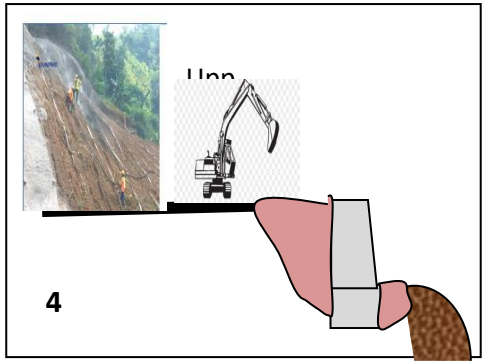


Remove debris

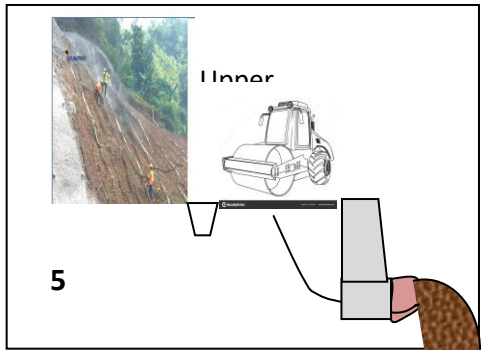


Remove debris

Instal Retaining Wall



fill with the aggregate and others material



Compacting

Asphalting

6.2 Sediment and Erosion Control

6.3 Slope Stabilization – concrete retaining wall, masonry retaining wall, gabions, shotcrete, planting, rock bolt

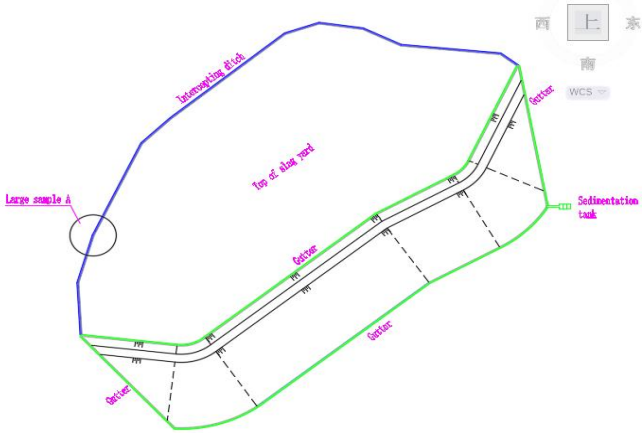
LEFT VIEW - PAR STA 18+500 UPPER SLOPE - RIGHT VIEW

LEFT V EW - PAR STA 18+500 DCWN SLOPE - RIGHT VIEW

OR

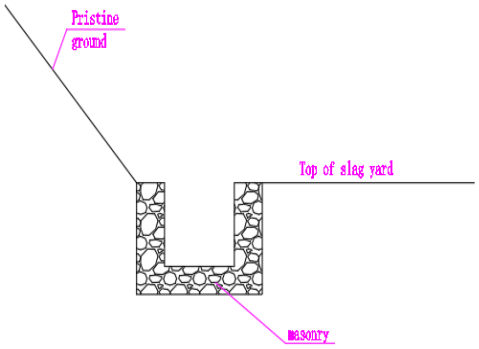
6.4 Permanent drainage: between slope and road

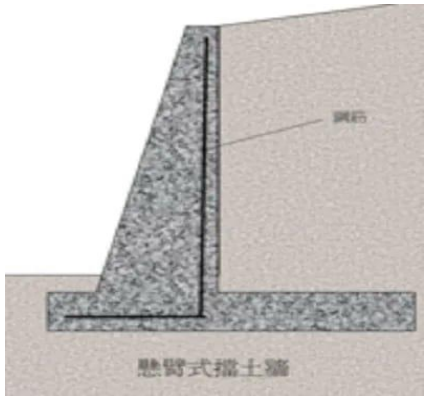
Shotcrete : Faster

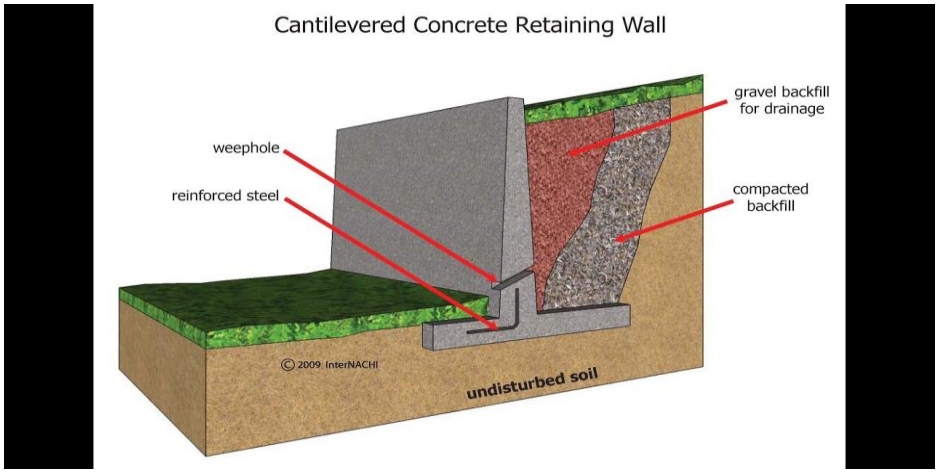


Large sample A

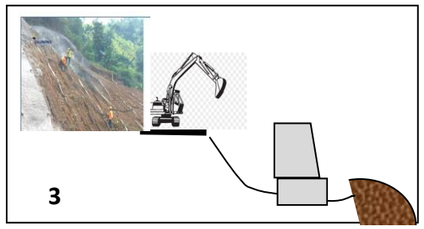
Planted slope : Takes Time

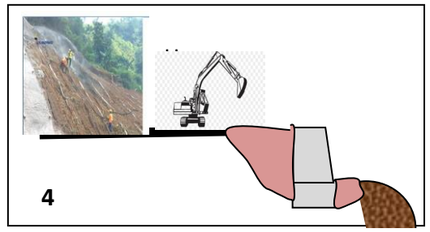


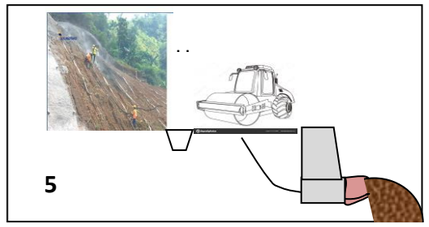




6.5 Step of works

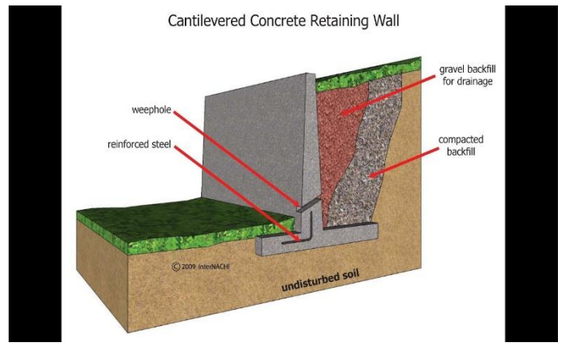




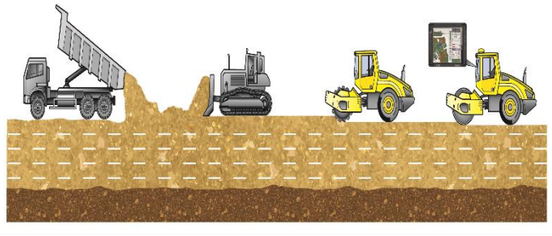


Take the soil debris that will become a landslide

Send soil debris to temporary spill banks at local community



Retaining wall construction



Fill with the aggregate and soil from temporary

Compacting

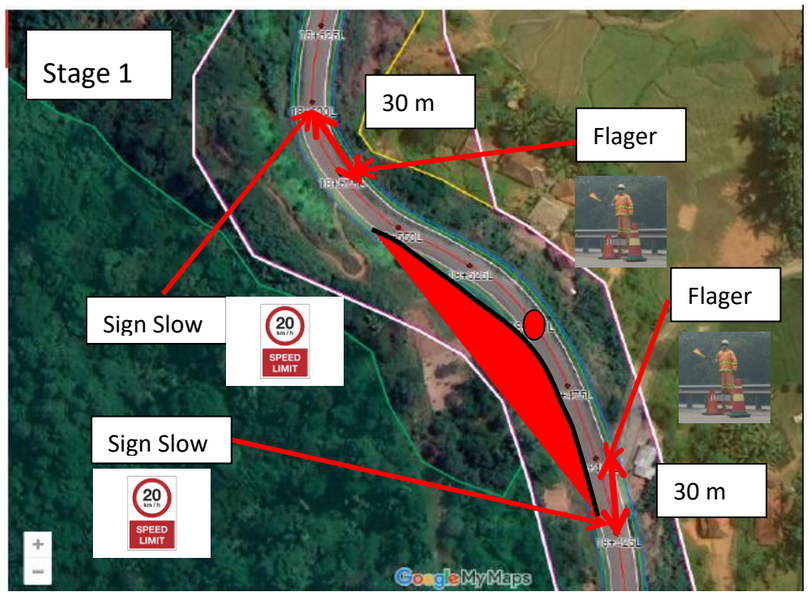
Asphalt activities

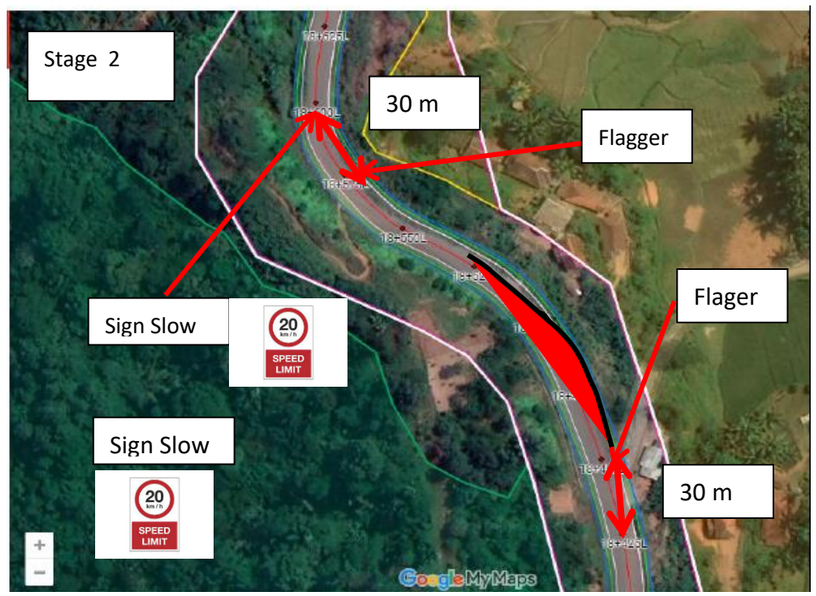
Shortcrete was chosen because it was an emergency job and had to be finished quickly

Re-fueling from oil truck to heavy equipment

When Re-fueling under the nozzle must be prepare Containment Berm to prevent spill oil

Water needs to carry out the road rehabilitation project, CDW JV buys from the local community





Traffic Management

6.6 Types of equipment and materials required

Table 4 Types of equipment and machinery

NO	Machinery and Tools/Equipment	Estimated Number
1	Excavator	3
2	Motor Grater	1
3	Vibratory Ruler	2
4	Water Truck	2
5	Dump Truck	3
6	Loader	1
7	Tandom Ruler	1
8	Bitument Distributor	2
9	Concrete Mixing Machine	2
10	Concrete vibrator	3
11	Asphalt Paver	1

Road construction is a highly technical venture that requires a range of distinct materials to ensure the motorways are durable and well able to support heavy loads and traffic.

Road materials range from natural soils, aggregates, binders such as lime, asphalt, concrete, and assorted products used as admixtures for improved quality of roads.

Table 5 List of the Road Construction Materials

No	Type of Material	Description	Source	Further process
1	Soil	Soil is the primary road material for the foundation, sub-grade, or the pavement in the case of low traffic rural roads.	Local Company	Tender and check license validation
2	Aggregate	Aggregates are used for granular bases, sub-bases, as part of bituminous mixes and cement	Local Company	Tender and check license validation

		concrete.		
3	Asphalt and Bitumen	Asphalt is a mixture of aggregates, binder and filler, used for constructing roads and their associated furniture, bitumen is actually the semi-solid binder that holds asphalt together.	Local Company	Tender and check license validation
4	Concrete	Concrete offers a lot of flexibility and ease of construction – making it an important road material. It is created by mixing cement, coarse aggregate, fine aggregate, water, and chemical admixtures	Local Company	Tender and check license validation
5	Composite Pavement	Composite pavements can potentially become a cheaper alternative to traditional pavements thanks to their ability to provide higher levels of performance and durability, both structurally and functionally.	Local Company	Tender and check license validation
6	Sand, Gabion, Sand Bag, Rebar and Wood	Composite of materials require for the road rehabilitation project.	Local Company	Tender and check license validation
7	Water	To meet the water needs for the road rehabilitation project, CDW JV buys water from the local community using a water truck	Local Company	Tender and check licence validation
	Power Source	To meet the need for a power source, CDW JV uses a small generator that has a noise level of 55 db and will always measure the level of pollution emissions. Filling oil will be carried out using a fuel truck that is very concerned about avoiding oil spills	Local Company	Tender and check licence validation

	Spoil disposal	This project does not require a disposal bank, what is needed is a place to allocate debris material which will be reused later. The temporary placement site will rent land from local residents	Local Company	Tender and check licence validation

All aggregates, cement, asphalt etc. will be sourced from local suppliers. The volumes are not large and they are able to be met by the local market. They will be stored at laydown areas until they are required. Cut will be used as fill wherever possible to avoid buying new materials and to avoid transporting and disposing of materials. All suppliers will be checked to ensure they have all the relevant permits/licenses to operate.

7 Hazard Identification and Risk Analysis Methodology

All CDW JV employees are encouraged to identify and report hazards and risks to Management. A formal hazard identification and risk analysis process is part of CDW JV safety meeting agendas. Hazards and risks identified are added to the register and relayed to operational staff. Newly identified hazards will be noted as they arise and advised to relevant personnel as soon as practicable. How to control detail how each will be controlled by way of elimination or minimization in accordance with the Law No. 1 Year 1970 on Work Safety on Chapter 3. A Hazard Register will be kept on site at all times and updated accordingly. A draft register is provided as an Appendix to the main works C-ESMP. For road rehabilitation works, the table below has been used to identify risks at mitigation measures.

Management have the responsibility to maintain control measures that are put in place to mitigate risk they do this by; Plan – Identify and assess the risks, Do - Eliminate if possible or minimize the risks, Check – Monitor the controls and Act – Review the controls and make better where possible.

Methods and Documents will use to manage hazards and keep the workplace safe include;

- Work Method Statements that will include risk assessment and Job Safety and Environment Analysis (JSEA's)
- Standard Operating Procedures (SOPs)
- Daily hazard assessments and Tool Box Talk Meetings

7.1 Work Method Statements and Work Permits

Work Method Statements are prepared for all road rehabilitation works. These are engineered designs and construction method statements that will be submitted to the CSE for review and clearance. This includes geotechnical engineering. Work Method Statements include JSEAs (more on this below) and Permit to Work.

The Permit-to-Work is a documented procedure that authorises workers to carry out specific work within a specified time frame it shall be generated by CDW JV's Site manager and to be endorsed by CSE prior to implementation. It sets out the precautions required to complete the work safely based on a risk assessment. It describes what work will be done and how it will be done; the latter can be detailed in a 'work method statement' and includes the JSEA.

The risk assessment will include referring to the HIRARC (C-ESMP Appendix 6). Any new risks will be added to the HIRARC matrix at the time. The Work Method Statement and JSEA will follow the mitigation measures in the C-ESMP, HIRARC and any new mitigation measures identified as a result of the job-specific risk assessment.

The permit-to-work requires declarations from the people authorising the work (CSE) and carrying out the work. Reviews will include the suitability of the design and geotechnical review. Where necessary it requires a declaration from those involved in shift handover procedures or extensions to the work. Finally, before equipment or machinery is put back into service, it will require a declaration from the permit originator that it is ready for normal use.

Refer to Appendices 10 and Appendices 7 as sample permit to work.

7.2 JSEA

A Job Safety and Environmental Analysis (JSEA) is a written document that sets out the high risk work activities to be carried out at a workplace, the hazards and risks arising from these activities and the measures to be put in place to control the risks. A JSEA considers the environmental as well as health hazards. Its primary purpose is to help supervisors and workers implement and monitor the control measures established at the workplace to ensure high risk work is carried out safely.

JSEA will be prepared by Site Managers with review and contribution of the SO, CLO, EPO and ESHS Manager.

Refer to Appendices 8 sample permit to work

8 Environmental, Social, Health and Safety Risks and Mitigation Measures

A risk assessment of the road rehabilitation works was completed and the table below details the works-specific mitigation measures. References to the main works C-ESMP indicate where additional measures may be required or where further explanation of methodologies are documented.

Table 6 ESHS Risks and Mitigation Measures – Road Rehabilitation

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
1.	Environment	Land Clearing	Vegetation clearance removing habitat that is used by key species listed in BMP.	Low potential for damage or loss to individual nests, roosts, borrows, food trees or other habitat features because the footprint of works outside the existing road corridor is very s mall.	Biologists will survey all 'areas with trees' before land clearing. 'Areas with trees' include gardens, pine forests, BIA (biodiversity important areas as defined by the BMP) or other trees footprint of the rehabilitation areas. If any nests, burrows, essential food trees or other significant habitat features are found, the biologist will formulate the specific mitigation measures e.g. evacuate animals to safe area prior excavation works. Fences, flags or other means to mark the boundary of work areas to keep vegetation clearance to a minimum and avoid harm in areas that have not been surveyed. No work will begin until the biologist has completed the work and submitted their report to CSE and CSE has informed the CW JV to start work via Work Permit. For all other mitigation measures, refer to C-ESMP Chapter 3.9 Biodiversity Management Practices and Specifications.	CDW JV-SAF-LCAR-018 - Rehabilitation and Land Clearing

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
			Vegetation clearance and top-soil clearing causing unstable soil and slopes.	Likely that the earthworks will contribute sediment laden run-off water that decrease river quality. This could have moderate impacts to small waterways if left unmitigated. Landslides or further erosion during works are likely due to steep terrain. This will contribute sediment to land or water course, affecting people's property and river water quality.	Engineered solutions are designed and work permits provided by CSE prior to works starting. Install erosion control measures prior to works starting. Install diversions for clean water around the work area prior to works starting to limit stormwater run off. Install temporary erosion control measures including benching, gabions, rock, sand bags, trenches and silt fences to reduce erosion and landslide potential. Install stormwater collection and treatment ponds downstream of the work area prior to works starting. Maintain erosion control measures, traps, treatment ponds and other devices for the duration of the works. Reinstate land and drainage systems as soon as works are completed. Reinstatement includes planting and permanent stabilisation features such as gabions, rock, shotcrete. For all other mitigation measures, refer Chapter 3.13 Erosion and Sedimentation Management Practices and Specifications.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
			Excavator operation could cause accident (spill, fuel or oil dripping, flip over)	Low risk of fuel or oil spill, dripping and flip over causing pollution to land and water in the immediate area (small scale).	Training for operator using SOP Excavator. The operator shall have Operation license (SIO) Routine Maintenance of excavator (regularly 3 months) Equipment shall have a fit certificate (SLO).	CDW JV-SAF-TPARK-041 CDW JV-SAF-OEU-010 - Operating Excavator
2.	Environment	Mobilization and Operation Excavator	Refuelling of excavator with fuel truck, in situ.	Moderate risk of fuel (diesel) drips and spills, which could lead to harmful pollution to ground and water in the immediate area (small scale, moderate severity).	Refuelling will be done in situ from a fuel trailer or small fuel truck, by trained fuel operators. Refuelling will be done on flat ground at least 50m from any water course, with the use of drip trays. Spill kits and other emergency equipment will be on board the fuel truck. Fuel truck operators trained in spill prevention and management. Prepare place/storage temporary hazardous material and waste hazardous material with protection and lock. Only authority person can get access. For other mitigation measures, refer to the procedure PLN no SPLN U2.003-1:2022 Toxic Waste Management.	CDW JV-SAF-HM-040-Hazardous Material CDW JV-ENV-SO-10: Spill Oil CDW JV-SAF-PTW-050 Permit to work CDW JV-ENV-RF-08-Refueling

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
				Fire caused by static or spark near the fuel.	Refuelling will be done by trained fuel operators who will have knowledge to avoid fire risk and trained in fire response. Fire extinguisher for diesel fuel will be kept on board the fuel truck. If fire / explosion occurs the fire emergency procedures will be used (Appendix 13).	DCW JV-SAF-FERP-044
3.	Environment	All work activities	Water requirement for concreting work, dust control, truck washing etc.	Affected community water supplies or instream values if taking water from local streams.	CDW JV will buy all water from community / private operator.	CDW JV-ENV-CW&DW-012
4.	Environment	Excavation and earthworks	The use of equipment for excavation operation creating noise, dust and vibration.	Harm to wellbeing and health of road users, nearby field workers and residents.	The impact is low because there is low density of housing and most of the land uses along the road are fields, gardens and plantation forest and not houses or businesses. Road rehabilitation work hours are restricted so there will be no night time impacts and no impacts on Sundays. Works are of short duration at any one of the locations – several days to several weeks. Locals are mostly familiar with the road works	CDW JV-SAF-HPP-023-ESHS Program Plan CDW JV-SAF-OEU-010-Operating Excavator

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
5.					from road construction, maintenance and rehabilitation over the past 10+ years, this is not a new experience. Equipment will be maintained regularly. Noise emissions will be monitored as per CESMP Chapter 3.16 Noise and Vibration Management Practices and Specifications and the Monitoring Program in CESMP Chapter 1 and grievances will be followed up regularly by CLO (as discussed elsewhere in this table and in CESMP Chapter 2.8 Stakeholder Engagement). For other mitigation measures, refer to: CESMP Chapter 3.16 Noise and Vibration Management Practices and Specifications CESMP Chapter 3.15 Air quality Management	
			Water flow is changed (increased or decreased) due to diversions and run off from work areas.	Water supply for community affected by reduced flow. Land damaged by increased storm flows during or following works.	Engineered solutions are designed and work permits provided by CSE prior to works starting. Earthworks will not occur in water ways unless necessary for drainage management purposes. Drains and creeks will be diverted around work areas to avoid excess stormwater in the work area (causing additional erosion risk). The slope of the drain/creek will be maintained as similar as possible to the pre-works condition to minimize any changes in velocity. The waterway to farm area down slope will be ensured that the water continues to run properly during and after works.	CDWJV-ENV-WFCA-09-Water for community affected CDWJV-ENV-DoWD-05-Disturbance of water discharge
				Instream biota and habitat affected by changes in natural water flow (increased or		

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
				decreased)	After the works any water channels will be reinstated as original. All drainage works will include bank and slope protection works so that the risk of bank and bed erosion is minimized. This includes using sandbags, boulders and rocks as bed and bank material. Plastic or concrete pipes may be used for diverting water down or across steep slopes where drainage excavations would otherwise create high erosion risk. For other mitigation measures, refer to C-ESMP 3.14 Water Management Practices and Specifications.	
			Culvert placement	Water flow and habitat is changed due to instream structures such as culverts.	Engineered solutions are designed and work permits provided by CSE prior to works starting. Culverts will be installed in creeks and drainage areas where necessary to improve drainage and avoid further slips and road damage. The slope of the drain or creek will be maintained to minimize significant changes in velocity. Water will be diverted around the work area during installation to prevent downstream discharge of sediment. The upstream and downstream ends of the culverts will be level with the drain/creek bed to enable movement of insects, fish and other biota upstream and downstream.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					The beds and banks immediately upstream and downstream of culverts will be stablised with rock, gabion or concrete to avoid erosion once operational. For other mitigation measures, refer to C-ESMP 3.14 Water Management Practices and Specifications.	
			Erosion of soil drainage works	Sediment discharges from work areas affect water quality and smother instream habitat.	Engineered solutions are designed and work permits provided by CSE prior to works starting. Diversion of water around all work areas prior to works starting (as above). Erosion will be managed by temporary measures such as sand bags, silt fences, benching, as discussed in this table above. Stormwater will be captured and treated in sediment ponds prior to discharge to drains or small creeks. Exposed sites will be stabilized with permanent gabions, shotcrete, plantings, and other methods as soon as practicable to minimize soil erosion. For other mitigation measures, refer to C-ESMP 3.14 Water Management Practices and Specifications.	
			Wildlife encounters	Injury or fatality of wildlife from contact with excavator. (particularly key species in BIA).	Land clearing procedures avoid the likelihood of habitat features (nests, roosts etc.) being damaged during excavation. Excavator operators will be trained in identifying key species and to avoid them during works in the	CDW JV-ANM-HWC&WHMP -001

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					unlikely event that animals are found in work areas. Wildlife encounter protocols will be implemented if an animal is spotted in the work area or accidentally injured or killed by excavator. For other mitigation measures, refer to CESMP Chapter 3.9 Biodiversity Management Practices and Specifications.	
			Discovery of cultural heritage	Damage or removal of artifact or grave	No PCR are identified in the work areas based on previous surveys. Chance find procedures will be used (Appendix 11)	
6.	Environment	Concrete Mixing and placement	Excess concrete	Pollute the land or water with high pH if disposed without curing. Concrete waste causing solid waste problem unless managed	Concrete waste will left to cure and harden, and then it will be inert and will be disposed in the disposal area.	ECDW JV-ENV-ECICVC-011-Excess Concrete in CVC
			Concrete Mixer and Truck washing	Pollute the water from particulates and from high pH.	Waste Washing Concrete Mixer treated in temporary settling pond and treated for pH between 7-9 pH before discharging to land or water.	CDWJV-ENV-TWiCVC-02 Truck Washing in CVC

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
7.	Environment	Slope Protection Retaining wall Slope reformed Shotcrete	Waste and debris produced by engineered structures.	Pollute the land or water with high pH if disposed without curing. Concrete waste causing solid waste problem unless managed.	Concrete waste will left to cure and harden, and then it will be inert and will be disposed in the disposal area.	ECDW JV-ENV-ECICVC-011-Excess Concrete in CVC
				Solid waste debris and hazardous waste will cause pollution to land and water unless managed.	All waste will be segregated, stored securely at the base camp / site office / laydown area and then sent off site for recycling or landfill. Hazardous waste will be managed like hazardous materials, in accordance with material safety data sheets, Indonesian regulations and World Bank Group EHS guidelines. All waste storage areas will be covered, bunded, and labelled. For other mitigation measures, refer to CESMP Chapter 3.8 Wastes and Hazardous Material Management	CDW JV-SAF-WM-017 point 7.3
				Concrete waste water is high pH and can cause fatalities to wildlife (particularly aquatic biota) and contaminate drinking water.	Concrete waste water (from wash downs) is high pH. It will be captured in settling ponds and treated for pH correction to between 7-9pH prior to discharge to land or water. For other mitigation measures, refer to to CESMP Chapter 3.14 Water Resources Management.	ECDW JV-ENV-ECICVC-011-Excess Concrete in CVC
8.	Environment	Slope	Vibration from heavy machinery,	Property damage (private houses) from	Conduct survey to confirm the status of private property near the landslide location	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
		protection Retaining wall Slope reformed Shotcrete	earth movements from earthworks and stablisation activities.	vibration of machinery and / or from additional landslides	If necessary, design and install stabilization measures to the private property at risk from existing slides or at risk from the physical works to stablise the slides. Engineered solutions are designed and work permits provided by CSE prior to works starting. Monitor for movement / damage and provide compensation where damage has been caused by CDW JV actions.	
9.	Environment	Landfill for clean soil and hard fill	Land required for fill areas which may be located outside of project land boundary.	Occupation of private land.	Refer land acquisition mitigation measures elsewhere in this table.	
				Damage to nesting, roosting, food trees or other habitat requirements for 10 key species or BIA identified in the BMP.	Plan a suitable location for fill – BIA will be avoided. Follow land clearing procedures (as discussed elsewhere in the table).	
			Depositing inert waste road and spoil materials into land.	Unstable land creating future landslides	Plan a suitable location for fill – steep slopes will be avoided. Fill areas and methods will be designed by geotechnical engineers or civil engineers and a work permit issued by the CSE prior to works starting. Fill to be regularly stabilized and supervised by CSE during the filling period. Site to be stabilized and rehabilitated at the end	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					of works for future land uses (as agreed with land owners and / or community during the planning stage – refer land acquisition mitigation measures elsewhere in this table).	
				Sediment discharges to water courses.	Plan a suitable location for fill – water courses will be avoided. Engineered solutions are designed and work permits provided by CSE prior to works starting. Divert water around the fill area prior to earthworks starting. Install and operate erosion and sediment control as discussed elsewhere in this table. Site to be stabilized and rehabilitated at the end of works, including the drainage to avoid ongoing erosion or sediment discharges to water courses. For other mitigation measures, refer to to CESMP Chapter 3.14 Water Resources Management.	
				Risk of contamination from solid waste or hazardous waste co-mingled with inert waste.	Only soil, rock, aggregate, hardened concrete and hardened asphalt will be buried in fill areas. All other waste to be sorted and managed separately as per waste management practices elsewhere in this table. Training of excavator operators to identify waste types and ensure only inert waste is transported and deposited to the fill area. Any such waste identified in the fill area will be removed prior to cover and stabilization.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
10.	Occupational Safety and Health	Mobile plant & traffic	Workers struck by work vehicles. Vehicle falling or other type of accident	Fatality or injury	Provide signal person to guide the operator or driver. Check the operator's or driver's condition, it shall be in a healthy condition not in drunk or fatigue condition. Provide and use proper PPE (safety helmet, safety vest, and safety shoes).	CDW JV Standard Operating Procedure-Operating Excavator
11.	Occupational Safety and Health	Road traffic	Traffic accident by other road users	Fatality or injury	Speed limit 30 km/hours with clear signed to be installed 30 meters before project site. Provide 2 flaggers at the opposite end of the working area Radio Communication protocol to arrange the traffic for the flagman Provide and use proper PPE - Safety Helmet, Safety Shoes, Safety Vest Refer to traffic management elsewhere in this table. For all other mitigation measures refer to C-ESMP Chapter 3.17 -Traffic Management Practices and Specifications.	
12.	Occupational Safety and Health	Shotcrete	Shot crete dust emissions	Can cause nuisance or harm to workers	Use proper PPE including face masks, ventilators and safety glasses around shot crete work.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
13.	Occupational Safety and Health	Work in the vicinity of landslide	Falling down	Fatality or injury	Install a warning sign related the potential risk and provide awareness training Install falling protection such as nets or barriers. Provide and use proper PPE Safety Helmet, Safety Shoes, Safety Vest, safety glasses and safety body harness. Install temporary steps, ladders, ropes or stairs to assist with working on the slope. Stop work protocol if there are unsafe practices. For all other mitigation measures refer to C-ESMP Chapter 3.4 Occupational Health and Safety Management Practices and Specifications.	CDW JV Standard Operating Procedure-Working at height
			Be buried	Fatality or injury	Install a warning sign related the potential risk and provide awareness training. Daily monitoring of the land movement and condition Install temporary protection fences, nets or traps above work areas. For all other mitigation measures refer to C-ESMP Chapter 3.4 Occupational Health and Safety Management Practices and Specifications.	CDW JV Standard Operating Procedure-Working on the Slope Procedure
14.	Occupational Safety and Health	Hazardous substances storage and use	Accidental spills or incorrect storage and use of hazardous substances.	fatality or injury and property damage	install secondary containment, protection from sun and rain and secure (locked) storage areas Store hazardous materials in accordance with material safety data sheets, ensuring adequate separate distances between incompatible materials.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					Use correct PPE for handling hazardous substances (gloves, face masks, ventilators, safety glasses, aprons or overalls, safety boots, as per material safety data sheets) provide fire extinguishers based on the fire type and material safety data sheets Notify EPO 085211426038 Clean Up procedure to temporary TPS LB3 (Hazardous temporary storage) as per Indonesian regulations. For fuel management, refer above. For all other mitigation measures refer to C-ESMP Chapter 3.8 Wastes and Hazardous Material Management Practices and Specifications.	
15.	Occupational Safety and Health	Powered hand tool	Struck by electricity or the tool	Fatality or injury	Always check the tools before use Provide and use proper PPE (safety helmet, safety vest, safety glasses, proper mask, safety gloves, safety shoes) Power hand tools shall install cover power protection Training, Tool box Safety Meeting, inspection from the ESHS Officer, Stop work protocol if there are unsafe practices For all other mitigation measures refer to C-ESMP Chapter 3.4 Occupational Health and Safety Management Practices and Specifications.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
16.	Occupational Safety and Health	Working at height, including steep slopes	Falling down	Fatality or injury	Install a warning sign related the potential risk and provide awareness training Install falling protection such as nets or barriers. Provide and use proper PPE Safety Helmet, Safety Shoes, Safety Vest, safety glasses and safety body harness. Install temporary steps, ladders, ropes or stairs to assist with working on the slope. Stop work protocol if there are unsafe practices. For all other mitigation measures refer to C-ESMP Chapter 3.4 Occupational Health and Safety Management Practices and Specifications.	CDW JV Standard Operating Procedure-Working at height
			Materials falling on workers.	Fatality or injury	It's forbidden to work under the working at height activity without any falling material protection. Place a barrier around the work area so that no unauthorized person enters the work area; Provide and use proper PPE (durable safety helmet, safety vest, safety shoes, safety gloves). For all other mitigation measures refer to C-ESMP Chapter 3.4 Occupational Health and Safety Management Practices and Specifications.	
17.	Occupational Safety and Health	Manual handling	Slip, trip, fall, over-exertion of muscles	Injury.	Train all workers to carry out manual handling with correct methods Use two or more workers to lift heavy equipment. Provide and use safety equipment such as vehicles or trollies for handling heavy equipment.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
18.	Occupational Safety and Health	Use of heavy vehicles, power tools and machinery	Noise can cause harm to ears	Hearing loss	Provide and use proper PPE especially ear plug or ear muff Rotate workers to avoid prolonged exposure to noisy equipment For all other mitigation measures refer to C-ESMP Chapter 3.16 Noise and Vibration Management Practices and Specification	
19.	Occupational Safety and Health	All work activities and after hours activities	snake or insect bite	Poisoned, can be fatality	Provide and use PPE (safety helmet, safety shoes, safety gloves, long pants and long sleeves). Insect repellent to be available for use Socialise workers on the risks and how to avoid snakes and insects Seek medical advice immediately –emergency services to be called to the location, request antidote for snake venom.	
20.	Occupational Safety and Health	Repairing road pavement	Exposure to hot asphalt mix	Burns and injury.	OSH training provided to all workers involved in asphalt work Provide and use proper PPE – safety boots, safety gloves, safety glasses, long sleeves, long pants	
21.	Land Acquisition	Road rehabilitation works outside of existing project footprint, to improve	Requires local residents' land as land for temporary placement of soil result from excavated for rehabilitation		Permanent land acquisition will be managed by PLN under Project's Land Acquisition and Resettlement Policy Framework and is not the responsibility of the Contractor under this Sub-Plan or any other part of the C-ESMP. No work to begin until land has been permanently acquired by PLN and the CSE provides work permit.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
		stability, drainage etc.	work			
22.	Land Acquisition	Storage Heavy Equipment	Requires local residents' land as land for placement heavy equipment, tools		Coordinate with PLN/PLE to temporarily rent local community land work closely with village heads or district head or regional leaders to bridge the temporary leases of land needed. Temporary rental of community land at prevailing market rates (similar to the provisions of the Project's Land Acquisition and Resettlement Framework) Pay compensation of any damage to the affected land / asset in accordance with the provisions of the Project's Land Acquisition and Resettlement Framework. Agree to the status of the land following rehabilitation during lease process and ensure all rehabilitation is complete as per the agreement prior to handing back to land owner.	CDW JV-SC-RL-01 - Rent Land
23.	Land Acquisition	Storage of material and or fill areas.	Requires local residents' land as land for temporary or permanent placement aggregate, soil, stone, hardened concrete, hardened asphalt and other similar materials.			
24.	Livelihood Restoration	Excavation and slope stablisation	Discharges of sediment or water, or landslides,	Loss of assets or	Pay compensation of any damage to the affected land / asset in accordance with the provisions of the Project's Land Acquisition and Resettlement Framework.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
			affecting land, crops and assets	livelihoods.	Rehabilitate the land back to the original condition.	
25.	Community Health and Safety	Project-related vehicles operating on the PAR	Local Community road users (pedestrians, motorbike riders and passengers, car drivers and passengers).	Moderate risk of delays, injuries or fatalities to road users due to project traffic using the PAR.	Risks are moderate because of the current context of road use. The baseline traffic volumes are low along the road due to the restrictions on road use. Residents are familiar with road works on the road since the road was built in the past 10 years. Speeds are generally low (<60km/hr) because of the windy nature of the road. Since September 2022 the road context is unsafe due to the slips and unstable areas, increasing the potential for injuries or fatalities for road users. Because the severity of risk is so high (fatality) the CDW JV will use a number of mitigation measures as described below.	
					1) Communication with villages and residents The Community Liaison Officer from JV (CLO) and the SO will hold meetings with residents along the PAR in advance to notify the commencement of traffic activities for the construction works and discuss traffic management. Appendix 5 is the consultation plan. Consultation has already started (refer letter Appendix 3). CLO and SO will consult with community leaders and police together to discuss traffic patterns and how JV will manage traffic. This should include	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					monitoring the need for additional measures, such as barriers, sidewalks, stopping truck traffic when school opens and closes, and others s needed. The CLO and the SO will hold meetings with residents to discuss traffic management and grievances on request or as a result of a grievance. 2) Information to villages and residents The SO will post the information regarding traffic management on the notice board of the Project in several locations in villages along PAR and update these weekly during road rehabilitation works.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					(2) Traffic management 1) Traffic signs and speed limits Speed limits have been determined based on road condition and sensitive areas. Refer to CESMP Chapter 3.17 for the speed limit map. • Sensitive areas (BIA, school, market, residential area) 30km/hr • Around road rehabilitation works 20km/hr • All other areas 60km/hr The SO will install traffic signs to warn Project drivers and community road users of existing sensitive areas and to drive within the speed limit. The signs will be installed at 50 m far from the sensitive areas and wherever drivers may speed.. The SO will carry out maintenance of the signs as needed to ensure they are in good condition and readable. at least every three months. 2) Driving rules Drivers will be trained to carefully drive at all times and follow the traffic regulations and drive slower than the speed limit. The SO will inspect the driving of vehicle on the PAR and issue warning to the drivers who violated the traffic rules. 3) Monitoring of driving The SO will inspect the driving by the traffic patrol every day. The SO will take necessary actions to improve or	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					remedy traffic safety by the results of monitoring.	
					Protection around Road Rehabilitation Works Road users will be protected from the work areas to avoid and minimize accidents. Work areas will be demarcated using temporary barriers and cones. Workers and machinery will remain behind the barriers and cones. Warning signs and flaggers will be posted to warn road users of a work area. Speed limits of 20km/hr will be enforced around work areas. If the road is reduced to one lane to allow for road rehabilitation works, the flaggers will control	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					traffic using a 'stop / go' system. Space will be made for stopped traffic queues at each flag post. Flaggers will let one lane of traffic move at a time, with the other lane queued and stationary. Flaggers will communicate via radio to allow for the alternating traffic to move past the site. Figure 4 shows how this will be managed. At the end of each work day the work areas will be secured with barriers, cones and signs so that road users can remain safe around the area without flaggers. Two lanes will be open to road users.	
					(3) Mitigation measures for disruption or harm: Pedestrian access along the road will be maintained at all times. The CLO and the SO will identify the disruption or harm to community activities due to the traffic on PAR by observing risks to road users during site monitoring and by reviewing grievances on a weekly basis. The CLO and the SO discuss identified issues with local authorities and community to solve the issues by such as alternative pedestrian areas, alternative market spaces, alternative diversions/access for vehicles (detours), alternative locations for crop drying etc. The SO will take actions to solve the issues. Temporary access roads will not be necessary.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					(4) Mitigation measures to avoid traffic accident: 1) Provision of traffic rule education in schools The SO will hold traffic safety instruction classes at the primary and secondary schools existing along PAR at the start of works and every 12 months The subjects of the classes include how to safely cross road, how traffic accidents occurred, how to avoid accidents, etc. 2) Instructions to drivers and traffic controllers/flaggers: All drivers have appropriate licenses The SO will instruct drivers and traffic controllers/flaggers to drive vehicles following the traffic rules specially in the sensitive areas every week. The SO will hold safe driving course for drivers prior to them starting work and then every six months 3) Provision of traffic controllers/flaggers The SO will provide traffic controllers/flaggers at entrances of and road crossing near schools along PAR to protect primary school children from traffic accident Locations of traffic controllers/flaggers on PAR. Duty hours of the traffic controllers/flaggers at and near schools are school operation hours. The traffic controllers/flaggers will guide traffic and children at the time of commuting to and	
26.	Community Health and Safety	Road works within and adjacent to the road corridor, including the use of heavy machinery.	Local Community road users (pedestrians, motorbike riders and passengers, car drivers and passengers).	Moderate risk of delays, injuries or fatalities to road users due to heavy machinery operating in the road corridor, narrowing of the road to one lane to allow for road works.		

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					from school. All other mitigation measures refer to CESMP Chapter 23.17 Traffic Management Practices and Specifications	
27.	Community Health and Safety	All workplace activities (including after hours)	Personal interactions between workers and community	Increasing the occurrence communicable diseases in the community such as COVID 19 and HIV/AIDS.	Health awareness training to communities regarding communicable disease risks. Discourage interactions between workers and the community. Refer to worker-focused mitigation measures further below in this table.	
28.	Community Health and Safety	Imported workers, all work activities and after hours activities.	Lack of controls on worker behavior when interacting with the community and other workers.	Moderate potential for GBV and VAC violations; the contingent of imported workers is small and local workers will be prioritized, but the severity of impact is significant.	Worker training and awareness raising All workers, staff and manager will receive GBV and VAC and sexual harassment (SH) awareness training induction conducted by contractor (CDW JV), and sign the Code of Conduct. GBV and VAC free zones board/signs instalment in certain areas. Focus on the quiet or isolated areas, crime or violation-prone areas. Regular awareness raising of workers on GBV and VAC (or regular refreshment program, e.g. through the commemoration of international women's day. Screening of potential risk of individuals during recruitment (see workers below).	
					Community awareness raising Conduct an induction for the surrounding community to get the proportional information	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					on the definition GBV and VAC, the consequences of any incidence GBV and VAC, how to report or complaint of any incidences, and disclose the mechanism to manage the case of GBV from CDW JV through the CLO with full support from GCT. Produce poster, leaflet or brochure on the GBV and VAC and how to complain any incidence	
					Providing safe and anonymous grievances for workers and local residents to report or express the complaints of any GBV or VAC incidences The survivor (or their representative/support person) has an alternative option to report the complaint to GRM teams or directly to GCTs, fill GRM form, text to GRM hotline service, or others. On the GRM process indicate three grievance channels, box of GRM form, hotline services, and communication directly to CLO or other trusted person related to the CDW JV and PLN. The grievance mechanism ensures the confidentiality and anonymity of reports in GBV and VAC incidents.	
					Maintain availability of GBV/SEA/SH and VAC service providers Update list of service providers from GCT, at least annually. The GBV and VAC service providers will be identified for a minimum basic package of service, ideally including medical and mental or	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					psychosocial support, legal advisor, law enforcement, shelter, police support, and any protection needed for the survivor. Provide all GBV and VAC service providers with copy of CDW JV Code of Conduct and GBV policies. GBV and VAC service providers will also be the trainer to help the CDW JV to develop GBV procedures and code of conduct.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					Addressing internal GBV or SEA incidents (from workers to workers or from internal GBV-VAC grievances) CDW JV assign a focal point (DFP) to address issues related to gender and GBV/VAC cases or incidents (internal and external cases). DFP will coordinate with Grievance Redress Mechanism Teams (GRM Teams) to register and respond to the complaints of the incidents of GBV and VAC in the workplace and with the surrounding communities. If the case of GBV and VAC is with or from the community (out of the contractor company employee), CLO must be involved in the process. DFP will Support GCT to respond to any GBV and VAC incidents and ensure the case were well registered, record and report. There will be GBV-VAC case register system to record all internal GVB-VAC incidences. CDW JV will coordinate and engage with GBV and VAC Service providers in developing GBV and VAC Mitigation Strategies and Practice. Qualifications of GBV and VAC Service Providers will refer to their respective practices but should meet national standards for medical, legal, and other professional services. All GBV and VAC Service Providers will be required to review the CDW JV Code of Conduct and understand their roles and responsibilities within the grievance mechanisms.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					The whole procedure of registering and respond the case are listed below. The role of CDW JV as contractor were more on supporting all the process together with GRM Teams and GCT, and also ensure that case handling process working on track. Survivor make a complaint to GRM Teams. It could be direct, indirect, or using other parties/to GBV service provider (referral case). This option is important as the survivor has the right to choose the complaint channel that could make them more comfortable and safer. If a complaint is received by a GBV service provider, they will need to assess whether the complaint alleges a breach of company -related policies and codes of conduct and whether there is enough information to refer to the complaint. If the complaint appears to relate to a GBV incident and the complainant provides their informed consent, the GBV service provider should immediately, and within 24 hours from intake, refer to the complaint to the GRM team. GRM team register the complaint, verified the complaint, and determine whether CDW JV would follow up and resolve the complaint by their capacity or not. If yes, the GRM teams could coordinate or hand it over to GCTs to follow up on the case. If not, the GRM teams would give the task to External Service Provider to support the	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					process. GRM teams with support from DFP ensures that the information during intake needs to be as clear and detailed as possible, it will lead to the verification on what kind of disciplinary action may be taken. Complete records on intake also help ensure that the survivor/complainant will not have to be subjected to repeated questioning on the incidents. Minimum information as listed below: Complaint reference code Age and sex of the survivors The correct names of all persons involved in the incident and the confirmation that, in the complainant's view, they are linked to the project. Detail information on witnesses, where appropriate A chronological report indicating times, locations, and dates of the incident given by the survivor/complainant Incident's transcription and report transcription (complainant transcription while reporting) Observation report on the complainants DFP and GCT will review and investigate the case and with the survivor's consent to follow up the case and find the appropriate actions to be taken and sanctions. DFP will be assigned to implement the actions. If the survivor does not wish to place an official	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					complaint to the perpetrator/employer of the perpetrator, the complaint is closed. GCTs and the GRM team need to declare that the case is closed. If GBV allegations are confirmed, GCT will coordinate with HR teams of CDW JV, DFP and supervision consultant and PLN to recommend sanctions for the perpetrator. Sanctions that should be proportional to the nature and severity of the incident and tiered Sanctions for the perpetrator in the project or CDW JV may include: Informal warning Formal warning through three times repetition cases. Additional intensive training or GBV and attitude class (if any) Suspension for a period of time (minimum a month and maximum 6 months; Termination of employment. Referral to the police. DFP, GRM teams and GCTs may handed over the serious and complicated case to external GBV and VAC Services Providers to get proper advice and support from the professionals. Accessing services should be the choice of the survivors. Survivors could get support on Medical and mental health treatment as necessary; legal advisors; law enforcement and/or security advisors; and temporary accommodations or other shelters.	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					Refers the case to the police as appropriate with the consent of the GBV and VAC survivor. GBV and VAC services provider will then define the case as resolved and coordinate with GCTs and GRM team to declare that the case is closed. DFP, GRM team and GCT will administer all and develop the recording and reporting process. The record will be reported to PLN. For all other mitigation measures refer to CESMP Chapter 3.2 Gender Based Violence Management Practices and Specifications.	
29.	Workforce	Pre-advertising	Opportunity for employment and recruitment processes.	Impacts related with employment process 1) Discriminatory or unfair practices during	Prior to approaching Human Resources to advertise a post, the lead contact in the relevant Department will ensure that recruitment approval has been obtained. A clearly written and banded job description and specification will be available	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
				recruitment. 2) Conflicts with workers and communities related to recruitment, HR management, or CDW JV labor and employment policies. 3) Avoid potential for child labor (no workers under the age of 14 and no workers under the age of 18 involved in hazardous work).	prior to any posts being advertised. A job description will include the key responsibilities and requirements of the job. The advertisement will avoid using any statement that could indicate discrimination, e.g., preference of applicant from certain ethnic, gender, etc. The advertisement will also indicate clearly that both men and women could apply, minimum age of 14, or 18 for hazardous job, and trafficking is not allowed HR will supply statements on annual leave entitlement, equal opportunities and terms and conditions of employment.	
30.	Workforce	Job Description & Person Specification			Each job will have a written job description and person specification. These will be reviewed every time a vacancy occurs to ensure that they remain relevant and are flexible. The review will include making reasonable adjustments will people with disabilities apply. Job descriptions will detail the purpose, tasks, duties and responsibilities of the job and provide the basis for drawing up the person specification. An accurate person specification is essential in order to attract individuals with the right qualifications, skills, knowledge, and experience. A person specification will be written, based on the needs of the job, detailing the essential and desirable qualifications, skills and experience	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					necessary to function in the role. Applicants will be measured against the criteria in the person specification throughout the recruitment process, particularly when shortlisting and interviewing. Care will be taken when considering applicable standards to ensure that an assessment criterion does not have any inbuilt bias against any of the protected characteristics. These are age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership, sex, sexual orientation, religion and belief, or race.	
31.	Workforce	Agenda for Change Process — evaluating the post			HR managers will consider their workforce profile before commencing the recruitment process and to utilize appropriate positive action recruitment measures during the recruitment process. Positive action recruitment measures include: In line with this plan, ensure that person specification criteria are not discriminatory (either directly or indirectly) — that they are expressed clearly, are necessary and reasonable to ask for (both essential and desirable criteria), and measurable; Advertise in a publication(s) that the target group reads; commitment to equality of opportunity and diversity in the advertisement, all other recruitment literature, and during events associated with the recruitment process; Ensure that the short-listing and interview	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					panel(s) reflects diversity so far as possible. Carry out positive action checking after the short-listing stage i.e., compares the profile of all applicants with the profile of short-listed applicants.	
32.	Workforce	Advertising of employment opportunities			The advertising of the job vacancy for local workers will be conducted in the affected villages, i.e., near the Project location (refer to the Stakeholder Engagement Management Sub Plan for description of relevant areas and villages) and also coordinate with village leaders or their representatives in each village to support local employment objectives. CDW JV will also post notifications of employment opportunities in other publicly accessible places (i.e., in print at village offices, Project offices, online). Timing: At least 24 hours' notice is required for advertising on the job's announcement. Note that closing dates requested may need to change due to time taken to set the advert and publication deadlines. A job description and skills specification will accompany the advert; an advert will not be placed without a job description and person specification. Meeting equal opportunities requirements: All positions, including those of short- term duration, will be advertised for a minimum of at least one	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					week and there is no gender discrimination along the advertising process and all recruitment process. This will ensure equality of opportunity and provide staff with opportunities for career development.	
33.	Workforce	Short-listing and Interview Preparation Principles and Candidate information screening.			CDW JV as the contractor of PLN for construction Package 1 lot 1A and 1B, commits to have preferential employment for local communities – this does not conflict with non-discrimination hiring approach. The short-listing and interview process will at all times be objective, fair, and free from any bias and/or conflict of interest. It will be conducted as an evidence-based process with candidates assessed against agreed selection criteria, based on the job description and person specification. All decisions will be documented with paperwork returned to HR. The Department lead contact is responsible for arranging the short-listing and appointment (interview) panel. Once candidates have been short-listed, the lead will provide details of who will sit on the appointment panel and what date the interview will be held. At least seven working days' notice for interview letters will be given. Failure to give sufficient notice may mean that Departments have to contact candidates themselves. The HR Team shall collect all necessary	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					information from short-listed candidates prior to interviews, including any information/certificates applicable to their potential positions, but also: Personal identity card or other means to verify identity and age; Health certificate/Doctor's note; and Police/criminal check and any indication of the case GBV or VAC and trafficking history, at least within the last five years.	
34.	Workforce	The interview			Each interview will be broadly equal in length and candidates for the same job will be asked the same questions. However, additional ('probing') questions can be asked to gain clarification on a subject being discussed or to encourage candidates to give a fuller answer.	
35.	Workforce	Timing of Decision			At the end of the interview, the candidate will be told when to expect a decision. Although informal visits or discussions prior to interview are useful as a means of orientating candidates, informal visits will not be used to inform the decision-making process.	
36.	Workforce	Paperwork from interview			All papers pertaining to the interview will be returned to HR. Interview notes and other relevant short- list information will be returned to HR for retention.	
37.	Workforce	New starter form			Once a candidate has been selected for employment, the lead contact will return a New Starter Form, consisting of appropriate budget	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					codes and salary details (including the point on the pay scale/band) and proposed start date to HR.	
38.	Workforce	Salary on appointment			Salary will be based on relevant levels of experience and qualifications for the post.	
39.	Workforce	Registration			The new acceptable worker will fill the data for registration and checking. The form of registration contained the personal data and all background of the new workers. For all other mitigation measures refer to C-ESMP Chapter 3.1 Human Resources Management Practices and Specifications.	
40.	Workforce	All workplace activities	Restriction of workers' rights and freedoms.	Unfair or illegal dismissals, unsafe or illegal working conditions, unfair or illegal pay and conditions.	In all aspects of labor management, CDW JV together with PLN commit to complying with: Local legislation, in particular the Labor Law of Indonesia; and Conventions of the International Labor Organization (ILO), which have been ratified by Indonesia (Law No. 13/2003 on labor), which include the Freedom of Association and Protection of the Right to Organize and Collective Bargaining (ILO Convention No. 87 and No. 98). Prepare the Code of conduct mentioned the employee right to join any association in a manner consistent with national law; and Carry out the new staff induction that explains the right of the employee to join any association in a	

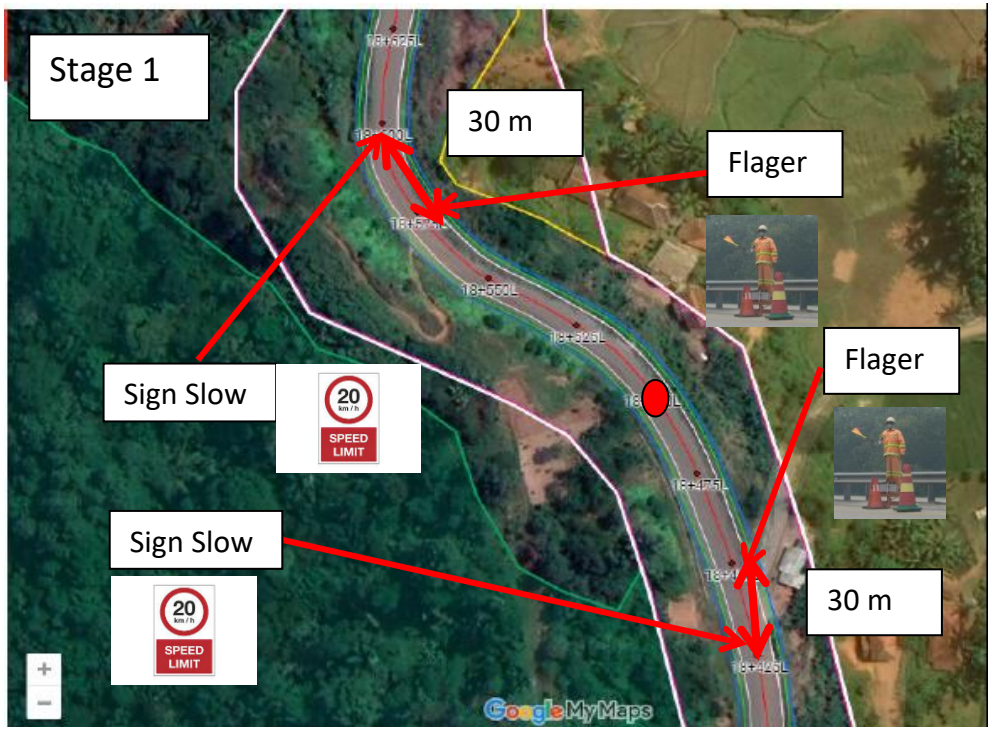
No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					manner consistent with national law. Develop and socialize to all workers the internal grievance mechanism process that provides workers with the right and opportunity to submit grievances regarding working conditions and labor practices, including anonymously. For all other mitigation measures refer to C-ESMP Chapter 3.1 Human Resources Management Practices and Specifications.	
41.	Workforce	All workplace activities including after hours activities	Occurrence of violated policies or Code of Conduct by workers	Harm to workers, harm to community members, environmental harm caused by worker.	Training on the Code of Conduct and on JV labor and other policies. If workers violate the Codes of Conduct, employers will place them on administrative leave pending a full and fair review to determine the veracity of the emerged allegation(s). The following potential sanctions include: Informal warning, if a violation can be fixed immediately and it is not repeated, that should be an informal warning; Formal warning, if the violation is repeated and have impact to another worker or community; Additional training, if the violation is repeated by the same person and also involving or there is other person who have the same violation; Administrative leave or suspension without paid if after the formal warning still repeated; Suspension of employment (either administrative leave as above or without payment of salary), for	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					a minimum period of one month up to a maximum of six months; Termination of employment if the case is major causing big loss of other staffs/communities and related to GBV and/or, referral to the police or other authorities as warranted. Additional training will be given if there are many violations related to: • OHS such as using wrong equipment that cause near misses • Administration such as fail to submit reports for multiple times • GBV/VAC For all other mitigation measures refer to C-ESMP Chapter 3.1 Human Resources Management Practices and Specifications and Chapter 3.2 GBV Management Practices and Specifications.	
42.	Workforce	All workplace activities (including after hours worker interaction)	Harmful employee conduct towards other work colleagues.	Occurrence of harassment, discrimination, or gender-based violence (GBV) in the workplace.	Orientation, induction, and refreshment about the discrimination and harassment policy During interviews processes, HR shall inform potential candidates on the CDW JV policies on discrimination, harassment and GBV; During the induction process, HR will review the code of conduct and CDW JV policies on discrimination, harassment and GBV with new workers; CDW JV will socialize to all workers the internal grievance mechanism process that provides	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
					workers with the right and opportunity to submit grievances regarding harassment, discrimination and GBV, including anonymously; and HR shall regularly carry out the socialization and training regarding anti-discrimination, harassment, and GBV polices and grievance procedures. All workers receive orientation training on CDW JV policies on the Code of Conduct, particularly regarding prohibition of workplace discrimination, and sexual harassment, and ability to report violations of the Code of Conduct without reprisal. See previous row for penalties if harassment, discrimination, GBV, or other violations take place For all other mitigation measures refer to C-ESMP Chapter 3.2 GBV Management Practices and Specifications.	
43.	Workforce	All workplace activities (including after hours)	Personal interactions between workers	Increasing the occurrence communicable diseases such as COVID 19 and HIV/AIDS.	Vaccinating workers against common and locally prevalent diseases such as COVID-19 Health awareness training to workers regarding communicable disease risks. Worker supervision and provision of recreational activities and work-life balance arrangements for after hours and discourage interactions with the community.	
44.	Workforce	All workplace			Introduction of sanctions (e.g., dismissal) for workers involved in criminal activities;	

No	Part	Activities	Aspect	Impact	Mitigation	Refer to CDW JV SOP
		activities (including after hours)	Personal interactions between workers and between workers and community	Crime and other forms of abuse or harm not listed above.	Provision of substance abuse prevention and management programs. Education / socialization of workers regarding the risks and the expectations of good worker conduct. Each worker will sign the Code of Conduct and receive orientation training.	
45.	Workforce	Review documents and contracts	Justice in legal status	Occurrence un-fair or unilateral termination of employment	Information on the length of notice that the worker can expect to give and receive on termination of employment Project workers will receive written notice of termination of employment and details of severance payments in a timely manner	

Figure 4 Indicative layout of traffic management showing speed limits, positions of flaggers and signs



9 Incident Response and Non-Compliance Management

This is a non-compliance and incident management process which defines the requirements for managing non-compliance and incidents related to environmental and social aspects including near misses, for the project.

9.1 Non-Compliance

Environmental, social, health, and safety compliance means conforming to related laws, regulations, standards, and other requirements in the C-ESMP Management Plans and Management Practices.

In order to comply with the above requirements and obligations, certain conditions within them must be met. Typically these will include:

- Managing monitoring programs or schedules, ensuring that the required mitigation measures and monitoring have been done, at the correct locations, for the correct parameters, and at the correct frequency;
- Pre-processing, performing calculations, and validating the data for compliance with any alert or reporting levels; and
- Generating compliance reports for related stakeholders.

Non-compliance activities will be classified according to their level, as summarized in *Table 7*.

Table 7 Non-Compliance Classification

Level	Description	Action Required
Field Observation	A potential Non Compliance situation where an observation, intervention, and/or corrective action is required in order to prevent Non-Compliance. A minor noncompliance that can be corrected immediately	Field Observations will generate a corrective action request or a recommendation for further action. A Field Observation that is not closed out in a timely manner or repeat may escalate to Non-Compliance. This level of non-compliance does not require CDW JV to create a Non-Conformance Report.
Class III	A Non Compliance situation which is not consistent with CESMP requirements, but not believed to involve damage or reasonable expectation of damage to environment or community or individual. An exceedance in a regulatory standard, such as water quality, noise levels, or traffic incident that did not result in any harm to personal or property. or long-lasting or permanent damage to the environment, including biodiversity. A Field Observation that has been repeated more than two times in the same location or involving the same activities and that has not been corrected.	Level III Non-Compliance will generate a corrective action request or a recommendation for further action. Level III of Non- Compliance will need to create a Non-Compliance and Incident Report and to be reported on the weekly meeting

Level	Description	Action Required
Class II	A Non-Compliance situation, typically including observed damage or a reasonable expectation of damage to environment or community or individual. Requires expeditious corrective action to prevent occurrence or reoccurrence. A Class III non-Compliance situation that has occurred repeatedly (i.e., more than two times once corrective actions have been implemented).	Level II Non-Compliance will generate a corrective action request and a formal Non-Conformance notice. Level II of Non- Compliance will need to create a Non-Conformance Report and inform Engineer within 24 hours.
Class I	A critical Non Compliance situation, typically including observed significant damage or a reasonable expectation of significant damage to a sensitive environment or community or individual. Requires expeditious corrective action to prevent occurrence or reoccurrence. A Class II non-Compliance situation that has occurred repeatedly (i.e., more than two times once corrective actions have been implemented).	Level I Non-Compliance will generate a corrective action request or a recommendation for further action and will result in a Stop Work Order. Level I of Non- Compliance will need to create a Non-Conformance Report and inform Engineer within 12 hours.

9.2 Incidents and Near Misses

Incident - a specific event, sequence of events, or extended condition that had an unwanted or unintended impact on safety, security, health and/or livelihood of people, property, or the environment, or on legal/regulatory compliance.

Near Miss – An event with no consequences but with circumstances that could have resulted in fire, injury, property damage, process upset, spill, release, or other failure.

An incident is an event that has occurred with undesirable consequences, such as:

- A fire.
- A property damage (including environmental and social-related vandalism).
- An accident involving a project vehicle that damages the vehicle and/or that involves community members or property.
- An environment release (sediment discharge, liquid hydrocarbon/produced water spill, or chemical spill).
- Environmental incident such as dewatering of a natural waterway, landslide, land clearance outside of boundary, wildlife injury;
- A public injury, harm, harassment, property damage or fatality or other adverse event that involves a member of the public.
- A work injury that results in medical care, time away from work for one or more days, or death, or an occurrence that nearly results in such an injury (a “near miss”)

Incident management consists of those post-incident actions which are performed to ensure the appropriate level of post-incident care is provided to people and the environment, address requirements related to good business practices (i.e., notification, understanding corrective actions to prevent a recurrence, and liability protection) and ensure regulatory compliance (i.e., notification and reporting).

Project incidents will be managed according to the following principles:

- Reduce further harm to the community, personnel, the environment, and assets.
- Confirm prompt and proper medical care/treatment of injured or ill persons, and perform the appropriate level of follow-up surveillance to ensure injuries and illnesses do not escalate.
- Notify and/or report incident details to internal and external stakeholders as appropriate.

- Investigate all incidents, regardless of the severity level, in order to identify root causes and implement corrective actions to prevent incident recurrence.
- Stimulate learning opportunities by sharing lessons learned internally and externally as appropriate.
- Address potential legal sensitivities and involve legal representatives as required.

An enforcement action. Violations that occur will be enforced in accordance with the procedures and regulations of CDW JV and PLN in accordance with applicable Indonesian laws and regulations. if the violation is major or serious, then the authorities with jurisdiction will be handled.

Incidents and Near-Misses will be classified according to the type and level, as summarized in the following tables.

Table 9.1 Classification of Environmental and Social Incidents

Table 8 Classification of Environmental and Social Incidents

Damage Incurred	Incident Type	Example	Classification		
			Class 1	Class 2	Class 3
Yes	Environmental Harm	Contamination of land	Major spill escape of hydrocarbon when re-fuelling: Persistent contamination of land; Extensive clean-up required. –	Significant spill of hydrocarbons when re-fuelling Some residual land contamination. Significant clean-up required over and above removal of contaminated material to disposal area.	Minor spill of hydrocarbons when re-fuelling: No residual contamination of land. Spill contained to defined areas (within workplace). No significant clean-up required other than removal of contaminated material to land farm or nominated or approved waste areas.

Damage Incurred	Incident Type	Example	Classification		
			Class 1	**Class 2**	**Class 3**
		Effects on the natural environment Land-clearing. E.g clearing over 100m2 (or 500m2, or 1ha) land outside a boundary that affects habitats of plant or animal species of conservation concern	Major loss or impact on land or water based flora and fauna. Destruction of ecologically significant habitat. Endangering viability of species, habitat, or ecosystem. Damage that cannot be remediated without risk of long-term loss, e.g.: – Death of animal or species or plants that is endangered or extinction.	Medium impact on land or water based flora, fauna, and habitat. Short-term impact on ecosystem. Damage that can be remediated, e.g.: – Partial destruction on native habitat leading to impact on local species numbers or disruption to breeding cycle. – Short-term disruption of protected fauna breeding cycle	Minor loss or impact on land or water based flora, fauna & habitat, but no negative effect on the ecosystem. Limited damage to an area of land no ecological significance, e.g.: Death of native animals or species, that is not identified as abundant or a pest; – Accidental falling of a tree or trees beyond the agreed boundary; – Over clearing of an area that is not native bush.
		Archaeological, heritage or cultural issues	Destruction or irreparable damage to highly valued structures/item /locations of cultural or heritage significance or value.	Damage to structures / items of cultural / heritage significance, or significant infringement of cultural values / sacred locations.	Minor repairable damage to common place structures, or minor infringement of cultural values.
No	Social harm	Social effect	Community demonstration or protest due to un-resolved complaint or other conditions	Community complaint related to conflict with workers and land acquisition process	Community complaint and grievance

Damage Incurred	Incident Type	Example	Classification		
			Class 1	Class 2	Class 3
No	Social harm	Social effect	Worker demonstration due to unfair or other incidents	Workers not paid or not paid as agreed Supervisor mistreatment of workers	Workers without a written contract Terms and conditions of employment do not meet legal and WB requirements
No	Social harm	Social effect	Mass and repeated gender based violence	Gender based violence on major cases	Gender based harassment and abuse on minor case

Table 9 Classification of Occupational Health and Safety Incidents

Damage Incurred	Incident Type	Classification				
		Fatality/Perm. Disablement	LTI	RWI	MTI	FAI
Yes	Injury / Illness	Death or injury that permanently affects the future an individual such as paraplegia, amputation, loss of an eye, etc.	An injury or illness that results in a fatality or days/shifts away from work, after the day of the injury.	An injury or illness whereby a person is not capable of performing their expected duties at full capacity for a full shift.	Any injury or illness requiring medical treatment other than First Aid. Note: First Aid and observations by a medical practitioner are NOT MTIs	Treatment normally performed by a First Aider and not resulting in a LTI, RWI, or MTI. See **Note 2** below.

Damage Incurred	Incident Type	Classification				
		Fatality/Perm. Disablement	**LTI**	**RWI**	**MTI**	**FAI**
					See **Note 1** below.	
No	Near Hit – Injury/Illness	Potential to result in Death/Disablement	Potential to result in LTI/RWI (Restricted Work Injury)/MTI			

Note 1 - Medical Treatment Injury (MTI) include:

- Application of antiseptics during second or subsequent visits to medical personnel.
- Treatment of partial or full thickness burns.
- Insert ion of sutures.
- Removal of foreign bodies embedded in eye.
- Removal of foreign bodies from a wound if the depth of embedment, size or location complicates the procedure.
- Use of prescription medications (except a single dose administered on the first visit for minor injury or discomfort).
- Surgical debridement. (Surgical removal of foreign object or suspect tissue from a wound).
- Positive x-ray diagnosis for fractures.
- Admission to a hospital or equivalent for treatment or observation for more than 12 hours.
- Any work injury that results in a loss of consciousness.
- Doctor prescribed visits to an associated health professional (e.g. Physio therapist) of more than 2 visits.

Note 2 - First Aid Injury (FAI) include:

- Treatment of superficial burns.
- Application of bandages during any visit to medical personnel.
- Removal of foreign bodies not embedded in the eye.
- Removal of foreign bodies from a wound if the procedure is uncomplicated and is affected by the use of some simple technique.
- Use of non-prescription medications and administration of a single dose of prescription medication on the first visit for a minor injury or discomfort. Tetanus injection.
- Drilling of a finger or toe nail to relieve pressure, or draining fluid from a blister.
- Negative x-ray diagnosis.

Observation of injury during a visit to medical personnel (less than 12 hours duration).

Table 10 Classification of Damaged Property Incidents

Damage Incurred	Incident Type	Classification		
		Class I	Class II	Class III
Yes	Plant/Property/Equipment Damage	Damage or potential damage to plant or property in excess of Rp100.000.000.	Damage to plant or property in excess of Rp10.000.000	Damage to plant and property less than Rp 10.000.000
.000	Near Hit – Plant/Property/Equipment Damage	Potential damage to plant or property in excess of Rp. 100.000.000	Potential damage to plant or property in excess of Rp10.000.000 but less than Rp.100.000.00	Potential damage to plant and property less than Rp10.000.000

9.3 Immediate actions and internal notification

Non-compliance or incident scenes must be preserved until the incident investigation team has collected relevant data and evidence. In addition, if the case is "non-disturbance" (it means not allowing anyone to disturb/entering the location of incidents before it has been investigated (take documentation such as photograph, video or sketch)) the scene must be preserved for the police and/or government inspector unless action is needed to:

- Save life and relieve suffering.
- Prevent further imminent harm to person(s), property or environment.

The Site Manager is responsible for containing the incident and preventing a recurrence and ensuring appropriate clearances are received before work resumes.

The first priority is to respond to the incident and non-compliance: make safe, secure the area, and prevent further harm. The immediate actions required to ensure that no further damage or injuries occur depend on the level of incident or non-compliance issue, as described in

Table 11.

Notifications processes for incidents and non-compliance also depend on the level, as summarized in *Table 12*; these primarily involve notification to the Supervising Engineer and the Client.

Table 11 Incident or Non-compliance response actions by level

No.	Classification	Information
1.	Class I non-compliance and incident	Notify the Construction Supervisor Engineer (CSE) immediately. If there is a violation of law or if this involved the public, CDW JV will inform to the CSE first to get approval whether the information can be reported to the Police or Media, and PLN is responsible to report to the World Bank. Activate the Emergency Incident ControlTeam (Appendix 13). Ensure the situation is made safe. Notify up the line to ESHS Manager and Project Manager (PM) to stop the work and the workers are given the authority to stop the work in the event of incident. Notification will be delivered as soon as possible, but no later than 12 hours after the accident occur to CSE. This will be confirmed with a written follow-up notification as soon as possible but no later than 12 hours which include details of: ▪ Name of Project and name of on-site contact. ▪ Date and time of incident ▪ Brief description of incident ▪ Non-compliance and incident Classification – Expected Outcome ▪ Damage outcome ▪ Details of names and injuries, if applicable ▪ External assistance required ▪ On-site contact details Protect the scene. Ensure the scene is secured and not disturbed. Scene will be preserved for internal and external parties (Engineer, PLN,etc) to investigate. The only exemption when action is required to: ▪ Protect persons or environment from immediate harm (make safe) ▪ Save life or treat injured persons ▪ Prevent further property or environmental damage These cases will be highlighted in the monthly progress reports. As soon as possible take photos and measurements and obtain a list of witnesses to initially record scene

No.	Classification	Information
1.	Class II non-compliance and incident	Notify the CSE immediately. Activate the Emergency Response, if required. Notify up the line to ESHS Manager and Site Manager if potential for: ▪ Lost Time Injury, ▪ Class 1 Plant Damage or ▪ Class 2 Environment ▪ Media Attention These cases will be highlighted in the monthly progress reports. Protect the scene. Ensure the scene is secured and not disturbed. Scene must be preserved for internal investigation and in the case of "non-disturbance" incidents for external parties such statutory inspectors etc. The only exemption when it is required to: ▪ Protect persons or environment from immediate harm (make safe) ▪ Save life or treat injured persons ▪ Prevent further property or environmental damage As soon as possible take photos and measurements and obtain a list of witnesses to initially record scene
	Class III non-compliance and incident	Provide First aid or other remedial action such as spill containment. Notify the Site Supervisor. Site Supervisor to notify ESHS Manager as soon as possible but no later than 12 hours. These cases are not highlighted in any specific reports but are available in the Non-Compliance and Incident Tracking System and used for trend analysis. Protect the scene. Ensure the scene is secured and not disturbed until required photo and measurements to initially record scene.

Table 12 Incident and Non-Compliance Notifications Required

No.	Classification	Information
1.	Class I non-compliance and incident	ESHS Manager to immediately notify the Engineer and PLN. Notification will be delivered as soon as possible, but no later than 12 hours after the accident occur to CSE. This will be confirmed with a written follow-up notification as soon as possible but no later than 12 hours which include details of: ▪ Name of Project and name of on-site contact. ▪ Date and time of incident ▪ Brief description of incident ▪ Non-compliance and incident Classification – Expected Outcome ▪ Damage outcome ▪ Details of names and injuries, if applicable ▪ External assistance required ▪ On-site contact details
2.	Class II non-compliance and incident	ESHS Manager to immediately notify the CSE This must be confirmed with a written follow-up notification which include details of: ▪ Name of Project and name of on-site contact. ▪ Date and time of incident ▪ Brief description of incident ▪ Non-compliance and incident Classification – Expected Outcome ▪ Damage outcome ▪ Details of names and injuries, if applicable ▪ External assistance required ▪ On-site contact details Notification will be delivered within 24 hours after the accident occur to Engineer safeguard team and PLN UIP JBT 1 with cc to PLN UPP JBT 1.
	Class III non-compliance and incident	These non-compliances or incidents are not required to be informed to the Engineer/ PLN in immediate timeframe. However, these incidents are highlighted in the weekly ESHS Meeting.

9.4 Non-Compliance and Incident Investigation and Reporting

The Construction Supervisor Engineer (CSE) will make sure all non-compliances or incidents will present during investigation by ESHS team will investigate all incidents. ESHS manager participate and lead in all investigations, others participate (as needed) to provide expertise, including other supervisors and engineers. ESHS manager and the Project Manager (or his designee) will be decided together on the team to investigate Class I and II incidents'. ESHS . The type of non-compliance or incident will determine the level of investigation required. The Construction Manager, through the Construction Supervisor responsible for the work area, in which the non-compliance or incident occurred, will retain ownership of the management of the investigation process through to the completion of the report. This may include allocation of specific resources in both manpower and materials.

Three levels of investigation and reporting are recognized, based on their classification as determined by the outcome, or potential outcome, of the incident. The ESHS Manager may, review and elevate the classification, and the level of investigation, after consultation with the Construction Manager (*Table 13*).

Table 13 Incident Investigation and Reporting Procedures

Type of Incident	Team Appointed	Typical Team Members	Report Processing
Class I Non-Compliance Class I Injury Near Miss Class I Injury Class I Environmental Incident	PM in consultation with another Workplace Manager (not the one where the incident occurred) and ESHS Manager	Team Leader Construction Supervisor ESHS Manager ESHS Officers Technical Experts If an ESHS violation, then the leader should always be a member of the ESHS team	Full Investigation Report Develop by Team Leader Review by Workplace Manager and forwarded to ESHS Manager and PM within 3 days (temporary report if investigation and full report is not completed yet)
Class II Non-Compliance Class II Injury Near Miss Class II Injury	Workplace Manager	Team Leader Construction Supervisor ESHS Officers Technical Experts If an ESHS violation, then	Non-Compliance and Incident Investigation Report Developed by Team Leader, Reviewed by another Workplace Manager (not the one where the incident occurred) and forwarded to ESHS Manager and PM within 3 days

Type of Incident	Team Appointed	Typical Team Members	Report Processing
Class II Environmental Incident Class I Damage Class II Damage		the leader should always be a member of the ESHS team	(temporary report if investigation and full report is not completed yet)
Class III Non-Compliance All Class III Incident	Another Site Manager (not the one where the incident occurred) No person on that team can participate, they will be witnesses, not participants in the investigation	Construction Supervisor ESHS Officers	Non-Compliance and Incident Investigation Report Develop by Site Supervisor Review by ESHS Manager Forwarded to SO within 3 days

9.5 Incident Investigation Reports

The details for all incidents as well as corrective actions to be taken are to be entered onto, Incident Investigation Report as soon as the incident investigation is completed. In addition, the corrective actions will be followed up and tracked in approved time manner to ensure the completion of the corrective actions. The data on the Incident Investigation Report must be entered into the Incident Tracking System database as soon as possible after investigation. The Incident Investigation Report and supporting documentation are to be filed on site.

9.6 Non-Compliance Investigation Reports

The details for all non-compliance findings as well as corrective actions to be taken are to be entered onto, Non-Compliance Report as soon as the Non-Compliance investigation is completed. In addition, the corrective actions will be followed up and tracked in approved time manner to ensure the completion of the corrective actions. The data on the Non-Compliance Investigation Report must be entered into the Non-Compliance

Tracking System database as soon as possible after investigation. The Non-Compliance Investigation Report and supporting documentation are to be filed on site.

9.7 Communication

Communication of the findings of incident investigations is a key element in preventing recurrence. Communication of these incidents will be informed to personnel as lesson learned to all personnel in toolbox meeting and safety talk.

9.8 Handling media enquiries

All media enquiries will be recorded and managed by PLN. They will not be answered until appropriate approval achieved from Project Manager and in many circumstances the Client. Ensure Client and contract requirements are met.

10 Auditing and Monitoring

The auditing and monitoring process is described in Chapter 1.10.1 CESMP. The monitoring table is included in this sub-plan as Appendix 2. This monitoring program will be implemented for the road rehabilitation works. Every quarter the ESHS Manager (supported by ESHS Officers and ESHS Administrator) will collate the data from the KPIs and audits and evaluate progress and performance against the CESMP, using a variety of analytical and evaluation methodologies. The purpose is to identify compliance and conformance issues, areas where improvements are required and identify where changes are required to the CESMP, SOPs, Policies, team composition, budget and resources and other parts of the ESHS system. This is a critical part of the 'adaptive management' approach.

11 Training

The training plan is described in Chapter 1.11.1 CESMP. This training plan will be implemented for the road rehabilitation works.

11.1 Training Methods

There are several training methods for CDW JV staff and subcontractors during construction phase as follows:

- **Formal training:** This is planned training with specific participants and specific training objectives. Formal training can be conducted using in-house resources (e.g., managers, senior experts, pre-existing training materials, etc.), or external resources (e.g., through external training providers, subcontractors, Client, etc.). Formal training methods will use specific training materials designed to increase the skills and knowledge of specific group of employees to be able to achieve a certain level of

competency in a task. Formal training often involves post-training testing required to obtain certification or other competency credential.

- **In-house training**. The material or experts providing the training are available in-house, and often are specific to the organizations' internal procedures or specific project needs. The company will determine what topics will be discussed, and the organizers will design the training so that the training material is related to employee performance. In-house training can also be supplemented with external/third-party experts.

- **Third party training**. This training method engages third party trainers who are authorized to provide the specific knowledge, certification, or other competency credentials according to company needs. Third party training can also be conducted for non-certification purposes when in-house capacity is unavailable, using trainers, sub-contractors, or other external experts. Training conducted by the Client, Engineer, or World Bank would be considered third party training.

- All formal and in-house training will need to be reviewed and approved by the CSE before construction – or at least before activities could cause the risks and impacts the training covers.

- **Informal/Opportunistic training:** This is training conducted informally or as needed – typically as on-the-job, or through other informal means such as daily briefings, presentations, or skills demonstrations provided by supervisors, in-house staff ESHS team or other experts.

11.2 Training During Mobilisation Period and Road Rehabilitation Phase

Table 14 Training to be conducted during mobilisation and road rehabilitation

Implementer	Training scope	Purpose/objective	Training material	Trainees/ audience
CDW JV	Worker Induction	Conducted to welcome new employees to the company and prepare them for their new role. It ensures workers are fully informed about the organization and are aware of their work and responsibilities. It serves as a starting point for an organization to introduce a culture of safety in the workplace.	• CDW Policy • Health • Social • Security • Safety • Environmental • Biodiversity • PCR Refer to Table below	Workers
CDW JV support by PLN/CSE	Biodiversity Management Plan Awareness	• To provide a simple, well-structured, adaptive management approach to terrestrial biodiversity conservation in the project area of influence • To provide highlight technical methods for land clearing, wildlife management, and protection of biodiversity important areas to minimize the potential impacts on habitat and wildlife from project construction activities • Highlight a long-term vision and an integrated plan for the maintenance and enhancement of habitat for threatened terrestrial mammal species in the project area of influence, while also addressing the influences from, and on, resettlements and land uses in the catchment • Highlight the World Bank ESF ESS6 and international best practices for biodiversity conservation	1) Background, Purpose, Vision and Goals BMP Biodiversity Issues in Upper Cisokan 2) Construction Related Impact Management in BMP Action Plan • Minimizing Further Habitat Fragmentation & Losses • Controlling Access • Fire Management • Managing Impact of Traffic on Native Fauna • Wildlife Management	Workers, drivers
CDW JV	Transportation Safety	• Implementing safe transportation so as to reduce the number of transportation accidents • Implement training and employ operators in accordance	1) Transportation safety law • Rules • Procedure	Driver

Implementer	Training scope	Purpose/objective	Training material	Trainees/ audience
		with standard procedures. • Implement vehicle testing and use vehicles that comply with predetermined standards	2) Basic concepts of transportation safety Operator or driver training 3) Safety and maintenance specifications on equipment 4) Aspects of transporting hazardous materials 5) Transportation accidents a. The cause of the accident b. Avoiding accident 6) Transport emergency response 7) Transportation safety management	
CDW JV support by PLN/PLNE/CSE	Land Clearing,	Training and education to increase the safe work practices of individuals and crews working in the fields of logging, forestry, and land clearing. Ensure team is working safely and efficiently.	• Chainsaw Safety and Cutting Techniques • Chainsaw Safety for Utility Workers Chipper Safety and Operations • Emergency Procedures and Readiness • Fire Protection and Safety • First Aid and CPR • Hazard and Danger Tree Cutting and Felling • Job Briefing and Job Site Set-up • Log Loader Safety and Operations	• Trees Cutting Operator • Biodiversity
	Earthworks,	an overview of principles and techniques for the design and construction of earthworks. Specific topics include soil characterization, interpretation of soil reports, construction and quality control of earthworks, dewatering of fine-grained geo-materials (mine tailings and soft clays), the impact of groundwater and other	• Subsurface investigation and soil characterization • Stability analysis of natural and man-made slopes • Design and control of compacted earthworks	Operation and Driver

Implementer	Training scope	Purpose/objective	Training material	Trainees/ audience
		environmental issues, and soil excavation. Case studies will be used to help you better understand course material.	• Seepage in soil • Dewatering techniques for fine grained geomaterials • Excavation in soil • Retaining structures for earthworks stabilization	
	Maintenance,	a) Insight and knowledge of managing a system which is a combination of maintenance technology with information processing elements about planning, design, manufacturing processes, control, management, and operations for the demands of quality maintenance work. b) After attending this training, participants are expected to be able to: c) Understand and explain the basic concepts of care d) Explain the level of duty and function of care e) Explain the philosophy of supply chain maintenance f) Explain the planning and scheduling of maintenance g) Explain the concept of reliability centered maintenance h) Explain the concept of total productive maintenance	a) Basic and aspect technique of maintenance b) Maintenance management & organization, and implementation c) Maintenance planning d) Inspection activity in maintenance e) Computerized of maintenance activity f) Managing spare parts & warehouse g) Procedure to managing budget h) Data collection aspects in maintenance i) Concept of predictive maintenance	Maintenance team
	Spoil Management	a) Minimize spoil generation where possible b) Spoil will be managed with consideration to minimizing adverse traffic and transport related issues. c) Spoil will be managed to avoid contamination of land or water. d) Spoil will be managed with consideration of the impacts on residents and other sensitive receivers. e) Site contamination will be effectively managed to limit the potential risk to human health and the environment	a) Initial stages of earthworks management. b) Erosion and sedimentation management. c) Traffic and safety during earthworks management. d) Water resources during management.	Operation workers
CDW JV support by	Biodiversity safety	The program aims to help training participants to: a) Understand the importance of High Conservation Value (HCV) natural resource management	a) HCV Fundamentals: HCV Needs, Definitions, and Benefits b) HCVF requirements: understanding	Security

Implementer	Training scope	Purpose/objective	Training material	Trainees/ audience
PLN/PLNE/CSE		b) Understanding High Conservation Value (HCV) requirements c) Understand the stages and techniques of High Conservation Value (HCV) management d) Understand the High Conservation Value (HCV) documentation system. e) Management of natural resources will have an impact on the condition of biodiversity, for that there must be Biodiversity Safety Management.	HCV1. Areas with concentrations of Biodiversity (Biodiversity), HCV2. Large landscape areas, HCV3. Areas with rare or endangered ecosystems, HCV4. important Environmental Service Providers, HCV5. Basic needs for local communities, HCV6. Cultural identity of local communities, c) Stages and techniques of HCV management: Identification, Assessment /Assessment, Programming, Document preparation, public consultation, socialization, monitoring and evaluation d) Documentation system for HCV management: Definition of documentation, Documentation system requirements, Format and form of documentation system	

Table 15 Induction Program

Type Of Induction	Description
CDW Policy	Drug and Alcohol
	Business Ethic
	HSE Policy
	PPE Policy
	Gender Policy
	Sex Harassment
	Code Of Conduct
Health	MCU
	Covid 19 , Transmitted Disease
	HIV, Sexual Transmitted Disease
	Hygiene
Social	Gender
	GBV
	GRM
	Community
Security	ID Card
	Reporting
	Crime
	Fighting
	Horseplay
Safety	PPE
	Work Permit/STOP of Work
	Emergencies Response Plan
	Accident/Incident Procedure

	Work Safety (confined Space and underground)/Prohibited activity without competency training
	Traffic Safety/Restricted Area Material to be transport with the right vehicle, Safety belt regulation, Helmet regulation for motorcycle
Environmental	Hazardous Material
	Solid Waste
	Noise/Vibration/Dust
	Waste Water (Spill Oil/Water Discharge)
Biodiversity	Flora and Fauna
	Fishing/Hunting/poaching
	Animal Accident/Incident
PCR	Heritage Culture

12 Emergency Preparedness and Response

Emergency procedures for the road rehabilitation works, are described in Appendix 13.

13 C-ESMP Budget

The budget will be developed and provided to PLN as part of the Variation Order for the emergency road rehabilitation works, and will include ESHS personnel, ppe, equipment, third-party services and other relevant costs.

Appendix 1

CGGC – DL - WIKA JOINT VENTURE (CDW JV)

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

Quick Report on Geological Survey for PAR October 27th, 2022

Joint Operation by

Nippon Koei, Newjec, PT.Indokoei, PT.Wiratman and PLNE

CONSTRUCTION PACKAGE 1 LOT 1A AND LOT 1B

Version 4.0 for Initial Construction

CLIENT:

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Revision sheet

REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL

1. Preface

The geological team of the Engineer visited to seven (7) locations on October 18th and 20th where the slopes have been slid in August 14th after heavy rainfall.

7 locations seem to be the most critical situation and the repaired works will be urgently implemented. As the result, 3 locations are caused by landslide and others are caused by slope collapse.

2. Technical Term of slope collapse and landslide

The slope slide is roughly classified into two (2) types of slope collapse and landslide.

(1) Slope Collapse

Definition

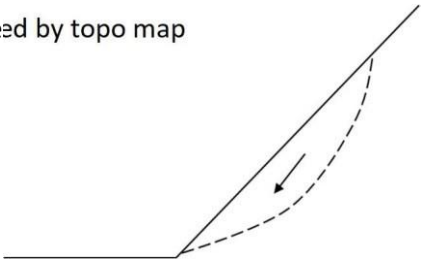
The slope collapse is defined that the shallow ground composed of deposit or completely weathered rocks surface falls down due to the steep slope gradient. It doesn't have a specified slide plane. It is just failure of the slope. Therefore, it is difficult to identify the initial symptom of the slide. The collapse quickly develops.

The collapse does not commonly extend to surrounding area.

The countermeasure can be relatively implemented on a small scale, for example, supports by shotcrete and soil nail (rock bolt) or gabions as a counter weight.

The slope collapse generally has following characteristics.

- Topography : most are initial slide, it can't be identified by topo map
- Depth of slide plane : shallow
- Inclination of slide plane : steep
- Speed of slide : fast
- Cause : infiltration of water/ erosion for bottom
- Countermeasure : small scale



(2) Landslid

Definition.

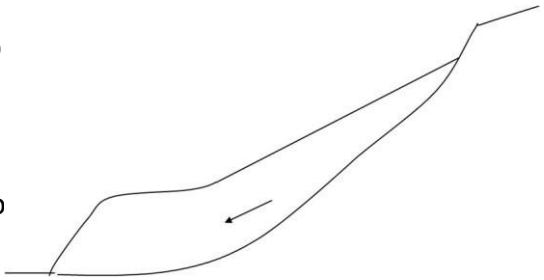
The landslide is a mass movement. The mass composed of weak deposits or completely weathered rocks or unstable artificial filling slowly slides downward by gravity. The lower part of the landslide mass initially moves, then the other part accordingly moves. It can be commonly identified by the topographic traces except the potential landslide.

The countermeasure is commonly on a large scale. The countermeasure is the removal for the top of landslide mass or the counter weight by rock materials on the lower part of the

landslide mass.

The landslide generally has following characteristics.

- Topography : It can be identified by topo map
- Depth of slide plane : deep
- Inclination of slide plane : gentle
- Speed of slide : slow
- Cause : infiltration of water/ erosion for botto
- Countermeasure: large scale



3. Situation for each Slid Places

3.1 Slope Collapse

Four (4) places, where the slope collapse occurs, are summarized in following Table-1. The sketches and photos are edited in Appendix-1.

The existing cross section for 4 places are shown in Appendix-2 of “Drawings”. The gabion as the countermeasure is drawn on most sections, but they could not be recognized at the filed on the collapsed portion.

(1) STA 10+450

Talus deposit slides down. The width of the collapse is about 8m on very small scale. As the rock exposes on the slid plane, the remaining talus deposit is assumed to be thin. No more remarkable collapse will not extend again. The main cause of the collapse is surface water coming from the existing drainage system such as spilt water from the concrete pipe. As there is the existing gabion at the left side of the slope, the same gabion is recommended to continuously extend to the right side. The drainage system such as the side ditch of the road and the concrete pipe is also recommended to be repaired.

(2) STA 22+30

Talus deposit slides down. The width of the collapse is about 8m on very small scale. As the rock exposes on the slid plane, the remaining talus deposit is assumed to be thin. No more remarkable collapse will not extend again. The main cause of the collapse is

surface water coming from the existing drainage system such as spilt water from the drainage pipe. There is the existing gabion at the right side of the slope. The wire mesh of the gabion may be broken and the gravels of tuff breccia falls down to the creek. In addition, the gravels of the gabion are broken into small pieces by slaking. The rock are tuff breccia and siltstone. The gabion is recommended to continuously extend to the left side and the damaged gabion should be repaired. As for additional gabion, as the tuff breccia or siltstone does not have required quality, andesite is recommended to be applied.

(3) STA 18+950

The weathered rocks are collapsed by key block shape of which the two dip-ward joints are combine and make the wedge. The rock bolt and shotcrete are recommended to be implemented as the same as the surrounding existing cut slope.

(4) STA11+250

Talus deposit slides down. The width of the collapse is about 6m on very small scale. As the rock exposes on the slid plane, the remaining talus deposit is assumed to be thin. No more remarkable collapse will not extend again. The main cause of the collapse is the river erosion for the bottom of the slope. At the left side of the collapse, the existing masonry gabion falls down. The remaining masonry retaining wall is also damaged by the surface water. There is open space behind the wall. The gabion is recommended to be implemented, the existing masonry gabion should be replaced.

Table 1 Evaluation for Slope Collapse

STA	Collapsed Geology	Type of Slope Slide	Assumed Main Cause	Recommendation	Severity
10+450	Talus deposit	Collapse	Spilt water from concrete pipe	1) Cleaning collapsed soil 2) Treatment for drainage including concrete pipe 3) Counter weighting by gabion (andesite is better) 4) Reconstruction of guardrail	Light
22+300	Talus deposit	Collapse	Spilt water from concrete pipe	1) Cleaning collapsed soil 2) Treatment for drainage 3) Counter weighting by gabion, replacing damaged gabion 4) Reconstruction of guardrail	Light
18+950	Rock	Wedge slide	Rainfall	1) Cleaning collapsed rock 2) Shotcrete and rock bolt	Light
11+250	Talus deposit	Collapse	River erosion	1) Cleaning collapsed soil 2) Shotcrete for collapsed face 3) Reconstruction of guardrail	Light
	Masonry retaining wall		Improper work	1) Reconstruction of retaining wall	Light

3.2 Landslide

Other three (3) places, where the landslide occurs, are summarized in following Table-2. The sketches and photos are edited in Appendix-1.

As there are no existing cross section for 3 places, the slope is estimated by the topographic map. All three locations seem to be on the deep sediment (colluvium) which flows down from the upstream of the creek or the upper slope including debris materials. That is shown in Appendix- 2 of "Drawings". Such gentle slopes covered by deep sediment are counted to be 11 places.

(1) STA18+500

The lower slope from the road has completely moved out. The landslide materials look talus deposit with brownish color, but it is possible that the materials are disposal by the previous road construction.

The old landslide traces are recognized at the slope behind the road. However, they do not connect to the present landslide. In future, the present landslide extends and join the old ones. The counter weight of rock materials are recommended to be placed after removing the residual slid materials. As there is a house near the landslide, it should be evacuated.

All slope design will be able to be started after obtaining topographic data.

(2) STA15+950

The main geology appeared on the slid plane is talus deposit or the disposal by the previous road construction. There is a creek at the left side of the slid plane. The creek also flows down through the bottom of the slid plane.

The very soft dark grayish clay is recognized at the bottom of the collapse, which is commonly identified as landslide clay by typical color and very poor stiffness.

However, the collapse happen this time has not progressed to the landslide yet because the crack on the road are limited at the edge of the road. There is no more extension.

According to the regional topography, as the slope is covered with deep sediment

(landslide sediment?), the counter measure should be treated as soon as possible before the landslide itself moves around this area. One option of the countermeasure is rock fillings as counter weight on the slope toe.

(3) STA12+200

Except for the cracks on the road (A-cracks, B-cracks), these extension is unclear because the paddy field.

At least, the bush concealing the side ditch should be cut to trace the cracks both A and B. The road between A-cracks and B-cracks is depressed at about several centimeters. At B-cracks, the lateral displacement to the lower slope at 22cm is found.

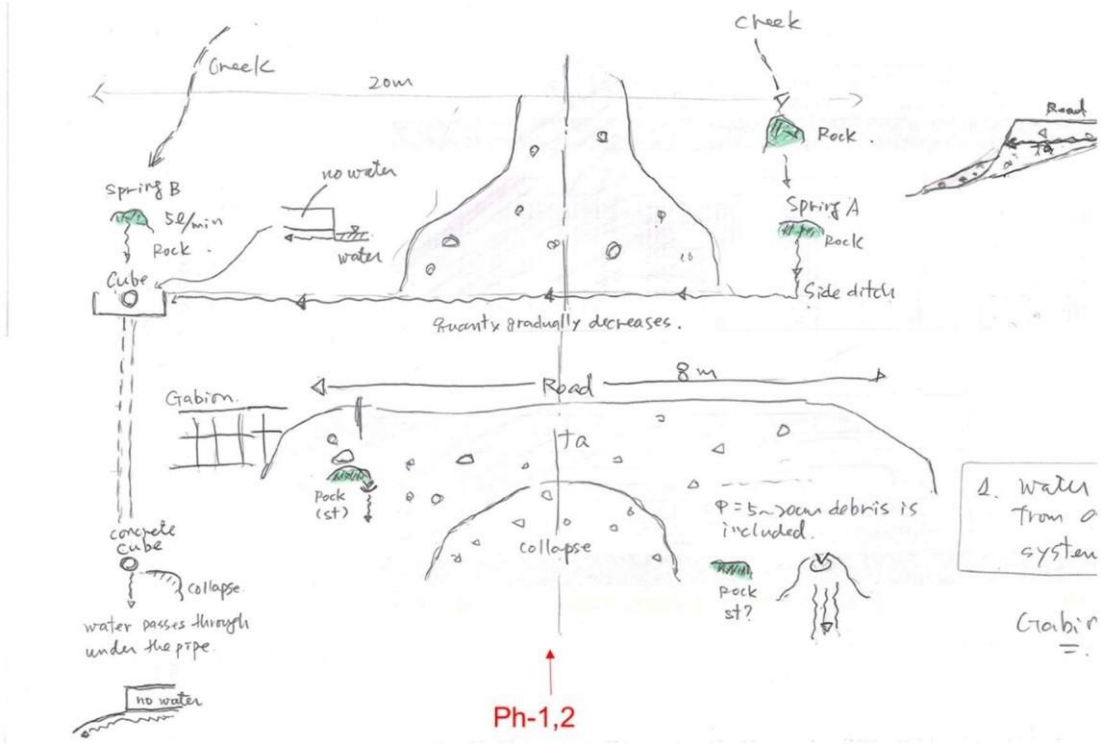
The topographic map is needed to understand the whole landslide shape.

Table 1 Evaluation for Landslide

STA	Collapsed Geology	Type of Slope Slide	Assumed Main Cause	Recommendation	Severity
18+500	Landslide deposit	Landslide	Infiltration of rainfall	1) Cleaning collapsed soil 2) Counter weighting by rock materials 3) Reconstruction of guardrail	middle
15+950	Landslide deposit	Collapse	River erosion Seepage from the creek	1) Cleaning collapsed soil 2) Leading creek water by box culvert etc., to mitigate bottom erosion 3) Counter weighting by rock materials or gabion 4) Reconstruction of guardrail	middle
12+200	Landslide deposit	Landslide	Infiltration of rainfall	1) Clearing bush to confirm the extension of cracks 2) Checking the ground deformation for lower part from the road 3) Monitoring for the displacement of A-crack and B-crack. 4) After the data acquisition mentioned above, the next step will be considered.	Serious or middle

Appendix-1
Sketching and Photos

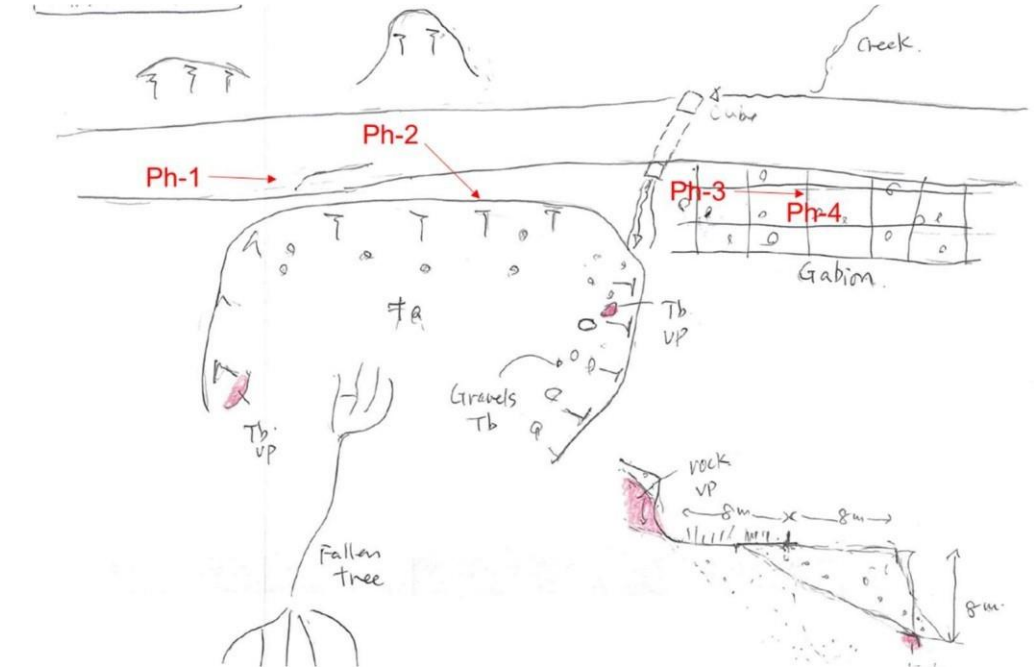
STA 10+450



View for Collapse

Piping holes

STA 22+300



Top of collapse, no more significant cracks

Tb (dark color) brought from upstream of creek, debris flow

Gabion next to collapse slope

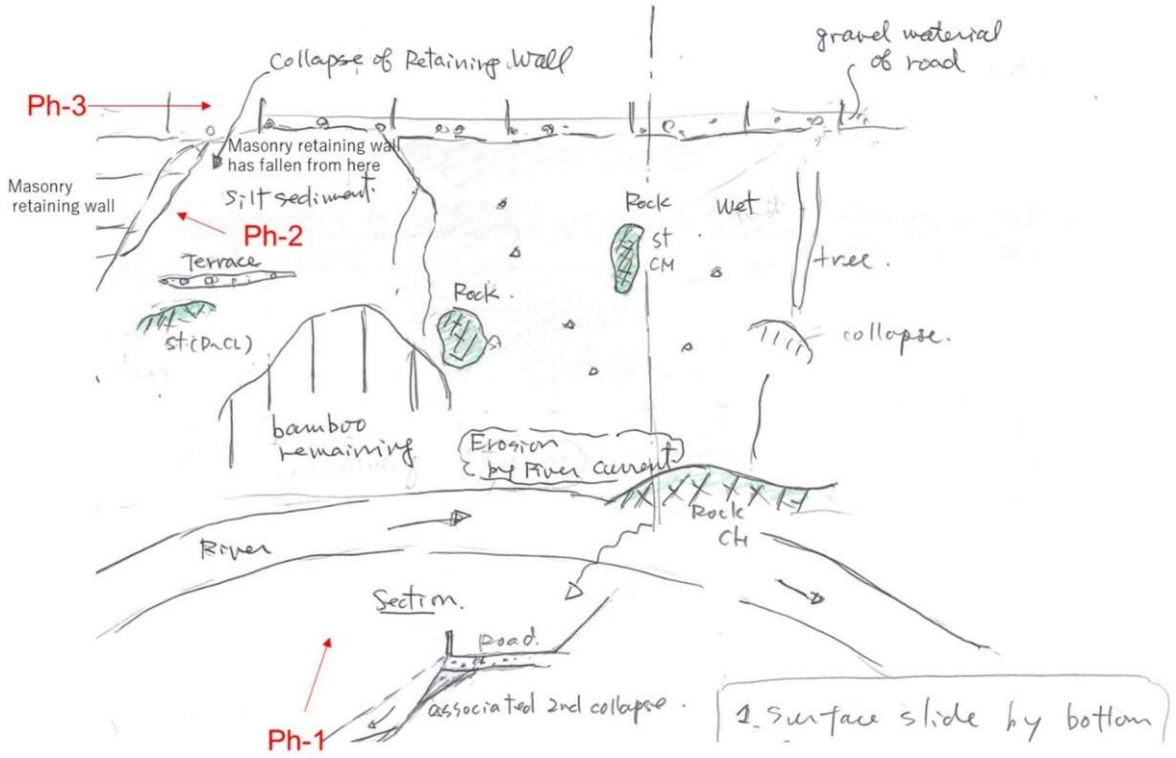
Slaking of Gabion rocks (Tb)

STA 18+950

Wedge slide by two joint system

Shotcrete and rock bolt suddenly quit at slid slope

STA 11+250

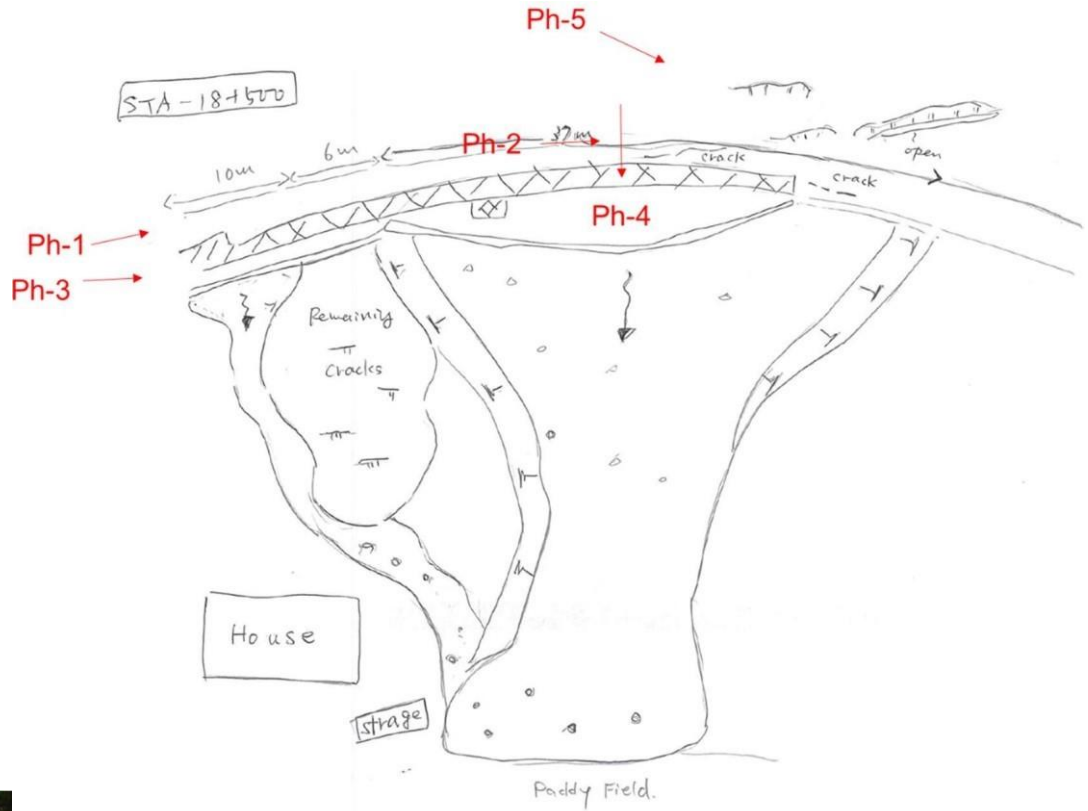


The collapse occurs at the right side is collapse, the retaining falls down at the left side.

Void behind retaining wall

Present road condition, there are no remarkable cracks

STA 18+500



Present condition of road

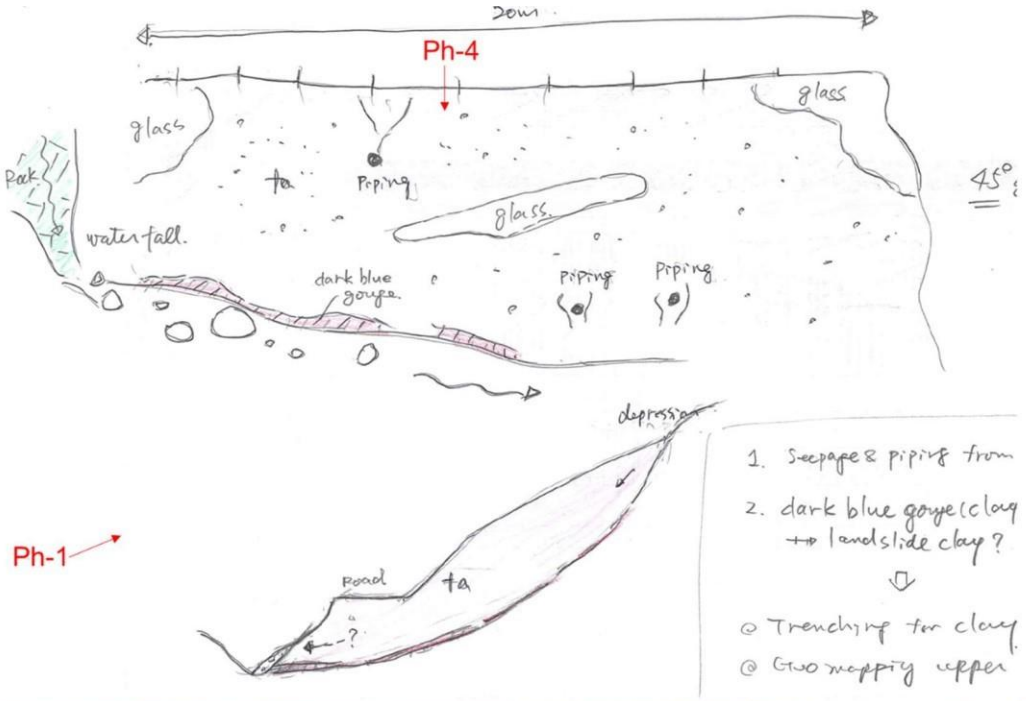
New crack

Top of landslide

Landslide material is composed of reddish silt and clay

Landslide displacement recognized at mountain slope from the road

STA 15+950



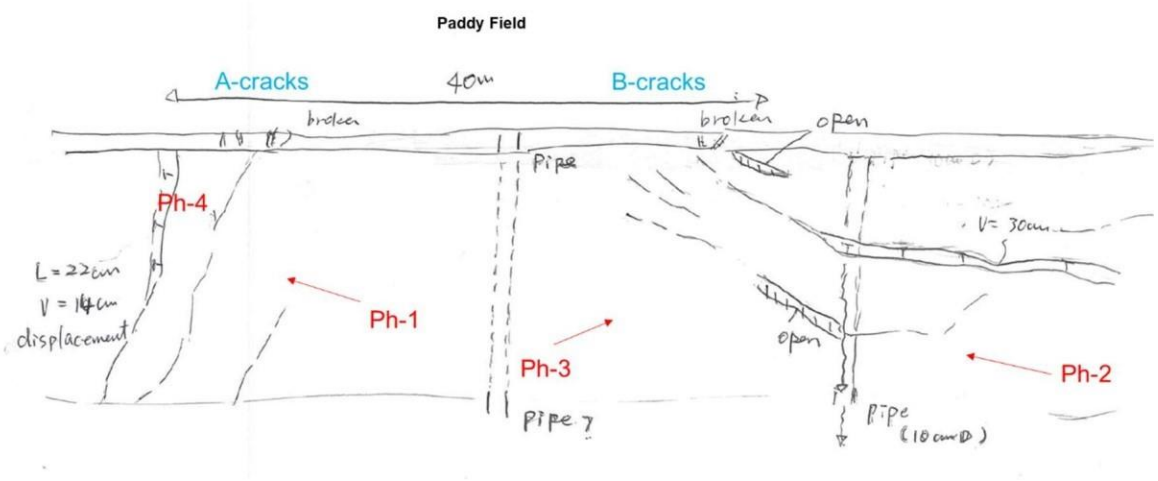
View for STA15+950

Present Road Condition

Landslide deposit, gray colored clay appeared at the bottom looks landslide clay.

Paddy field at the right side of the creek.

STA 12+200



A-cracks featured on road

B-cracks featured on road

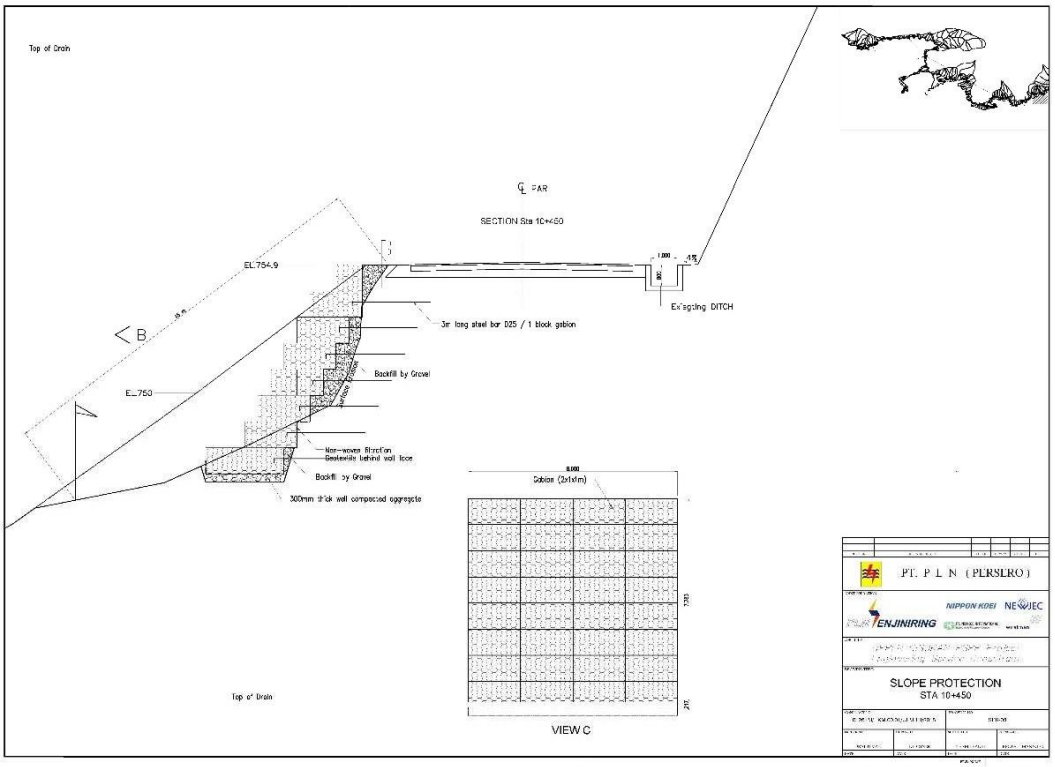
B-cracks featured on road

Horizontal displacement: 22cm?
Vertical displacement: 14cm

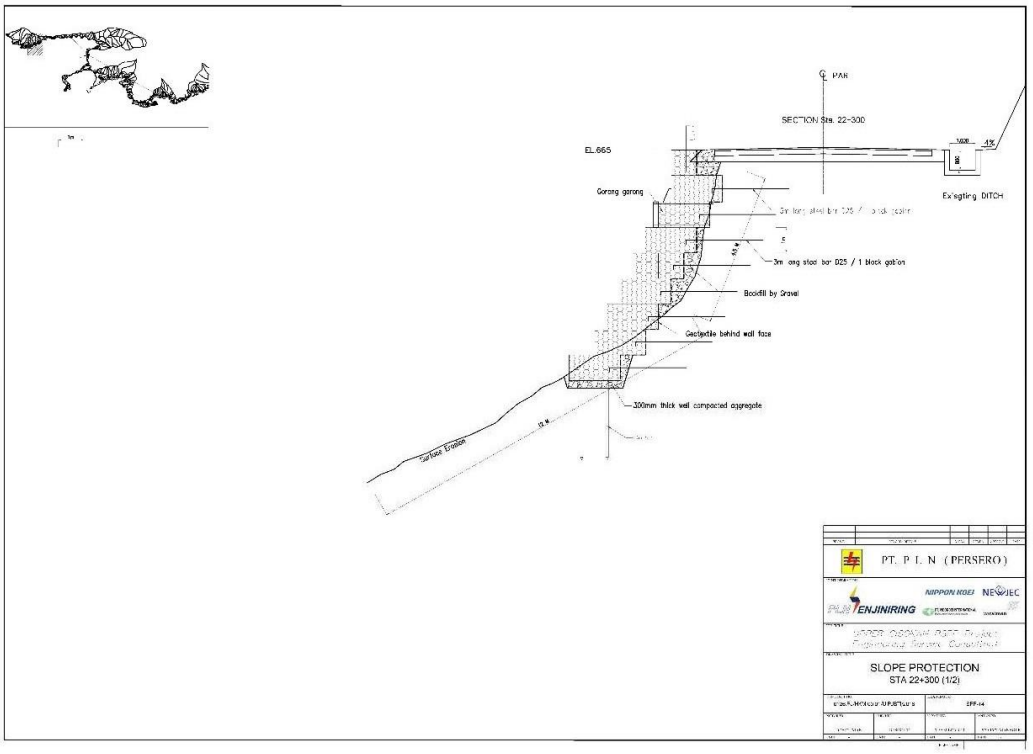
Appendix-2

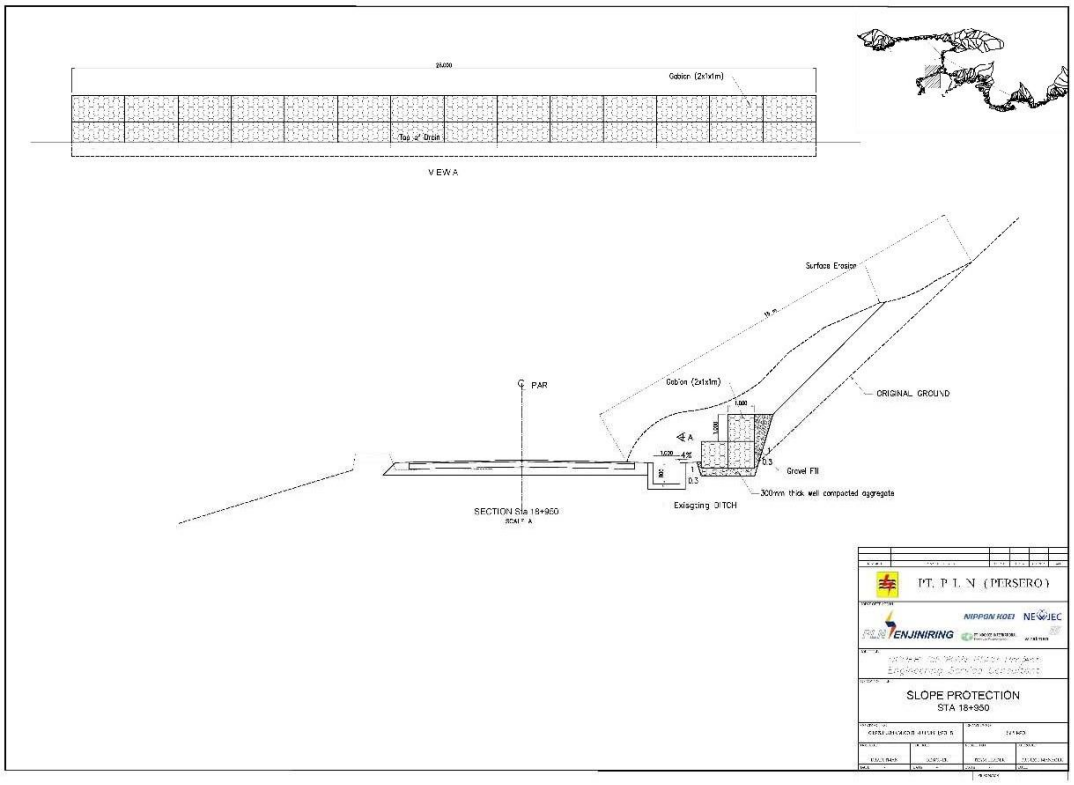
Drawings

Collapse

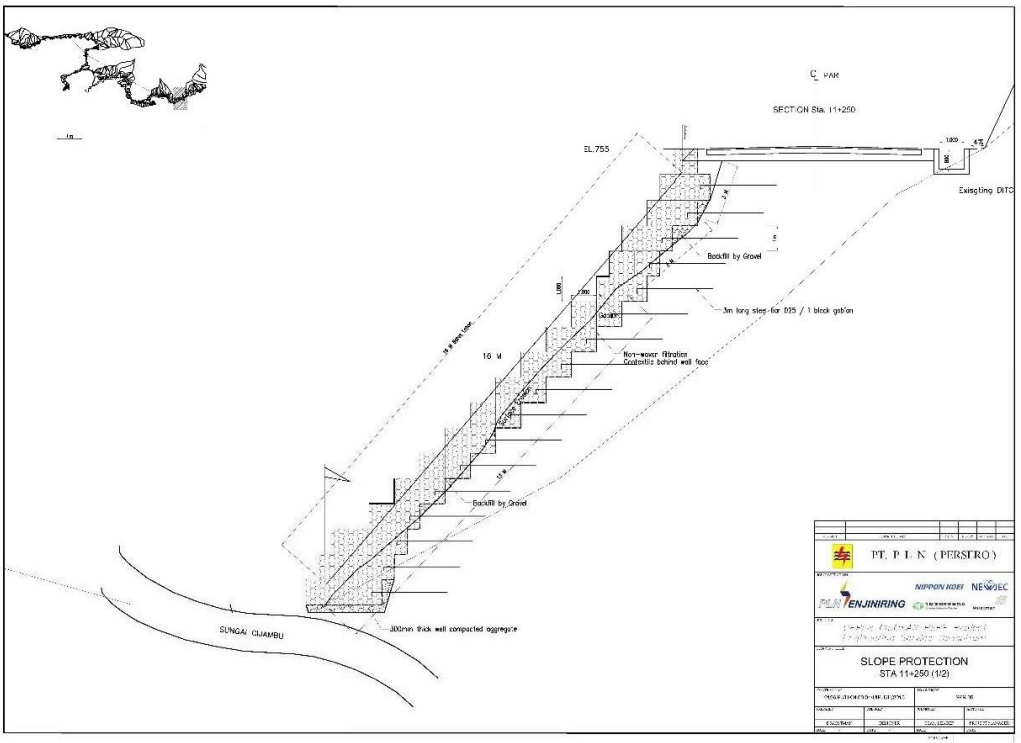


STA 10+450



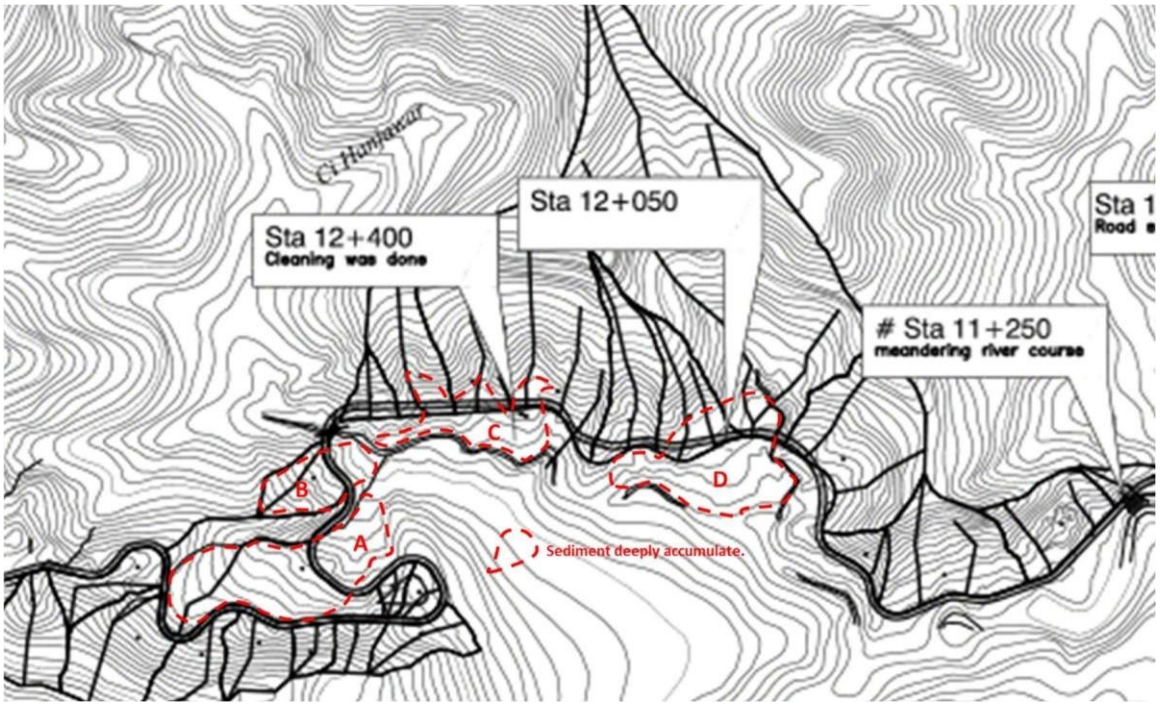


STA 18+950

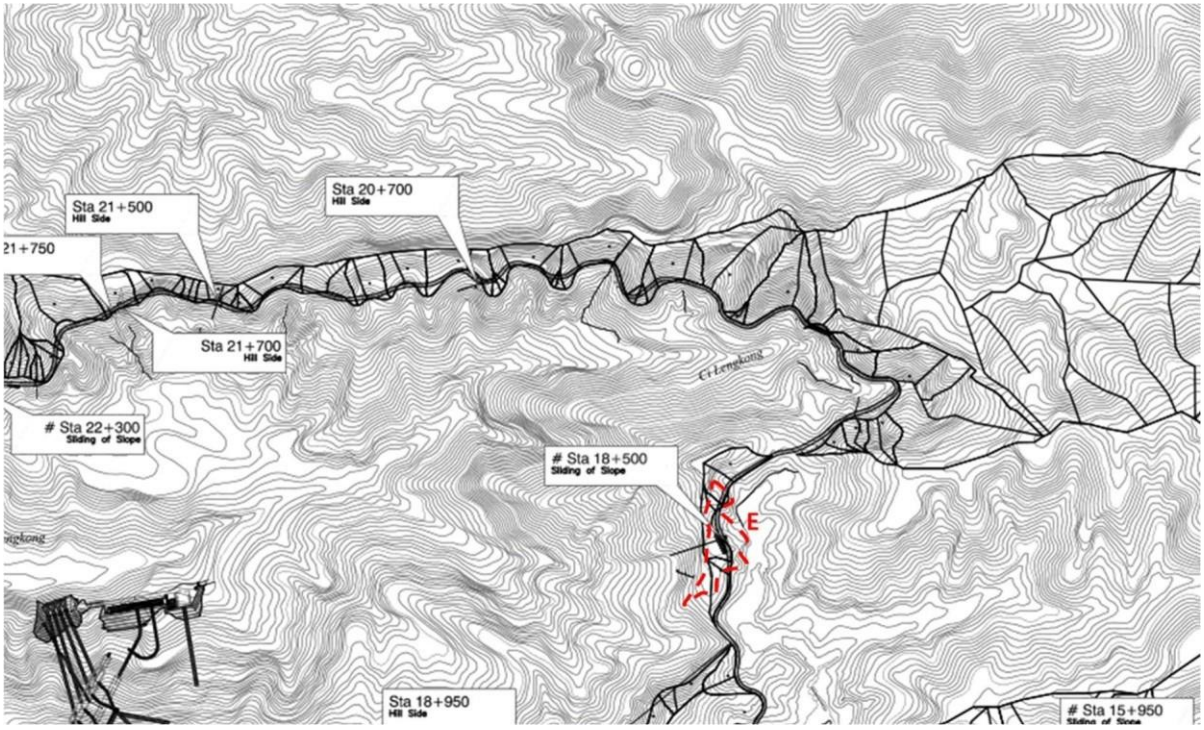


STA 22+300

Landslide



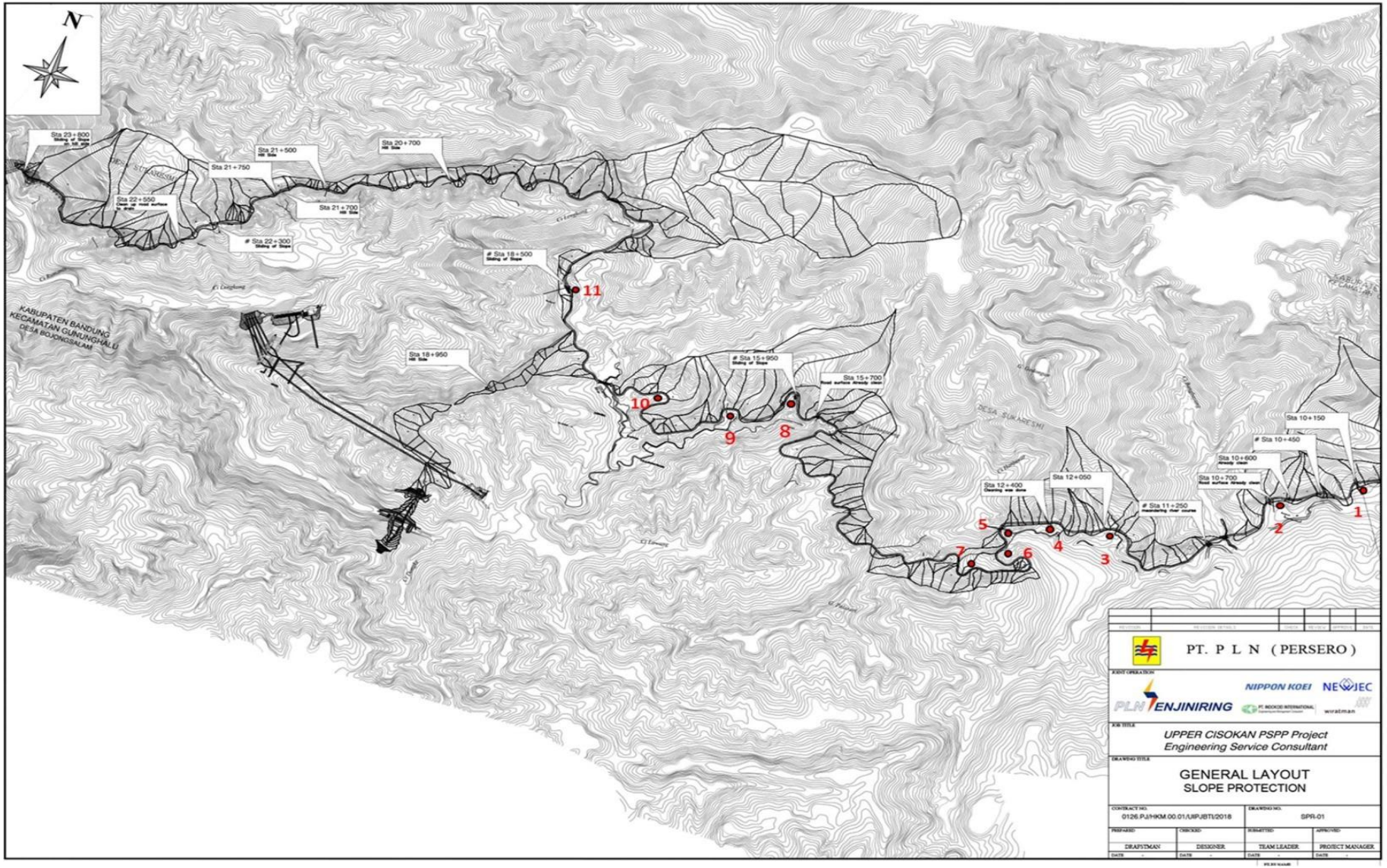
Topography for STA.12 area



Topography for STA.18 area

PAR passes through deep sedimental area at total 11 points.

The landslide is possble to occur at these locations.



Appendices 3 : Monitoring Plan for ESS

The C-ESMP has defined a series of management sub-plans that incorporate KPIs from various management practices for key environmental and social risk management requirements. The monitoring plan provides a framework for how the various environmental and social impacts are to be monitored, as defined by the KPIs, and in support of effective management and evaluation of the objectives of the various sub-plans, Refer to Chapter 1 framework point 1.10.1 Monitoring Plan

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
1	KPI-AM-01 Safety incident at accommodation areas	Chapter 2.11: Temporary Facilities including accommodation management	Workers accommodation areas	Check the number of safety incidents at the temporary accommodations Check and inspect the security structures and procedures for workers accommodations	Quarterly	Security Chief
2	KPI-AM-02 Security incident at accommodation areas	Chapter 2.11: Temporary Facilities including accommodation management	Workers accommodation areas	Check the number of security incident at the temporary accommodations Inspect the accommodation facilities, condition, and services according to applicable standards.	Monthly	Camp Manager
3	KPI-AM-03 Diseases, or other health issues	Chapter 2.11: Temporary Facilities including accommodation management	Workers accommodation areas	Monitor the number of employees reporting injuries, diseases, or other health issues	As needed, for all new workers and camp residents and visitors.	HR Manager
4	KPI-AQ-01 Complaints from communities caused by air quality	Chapter 2.11: Temporary Facilities, Chapter 2.10: Traffic management, Chapter 2.12: Quarry management	Site-wide, all roads and work areas.	Check the number of complaints from communities regarding disturbances from air quality generated by the Project activities. Observation or continous attention to air quality and air quality management practices at the place where grivances are appeared Check the summary of community grievances regarding air quality near major traffic areas and transportation routes.	Daily Daily Monthly	Site Managers, EPO, ESHS Manager CLO
5	KPI-AQ-02 Exceedances of AQ standards	Chapter 2.10: Traffic Management, Chapter 2.11: Temporary Facilities, Chapter 2.12: Quarry management	Site-wide, all roads and work areas.	Observation or continous attention to air quality and air quality management practices being implemented at the designated points/places Check the number of exceedances of applicable standards for air quality caused by Project activities in work areas or communities.	Daily Weekly	ESHS Manager, EPO
6	KPI-BD-01 Wildlife injuries and mortalities	Chapter 2.9: Earthwork, Chapter 2.11: Temporary Facilities, Chapter 2.10: Traffic management, Chapter 2.4: Biodiversity	All land clearing areas	Check the numberof wildlife injuries and mortalities caused by by earthworks and spoil management	Daily monitoring Monthly review of wildlife injury and/or mortality incidents,	Site Supervisor (daily) EPO (monthly)

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
7	KPI-BD-02 Conflicts between workers and wildlife	Chapter 2.8: Stakeholder Engagement Chapter 2.7: Gender Chapter 2.6: HR Management	Site wide, all roads and work areas.	Check the number of conflicts between workers and wildlife.	Monthly	EPO, with support from the Safety Officer and Medical staff
8	KPI-BD-03 Wildlife signage, wildlife crossing and habitat connectivity structures	Chapter 2.4: Biodiversity, Chapter 2.10: PAR, TAR, EAR	Site-wide, along PAR and TARs	Check the percentage of wildlife mitigation structures (i.e., signage, wildlife crossing and habitat connectivity structures) maintained in good working condition.	Quarterly inspection reports of all wildlife crossing structures along roads.	EPO
9	KPI-BD-04 Workers understand biodiversity and wildlife management	Chapter 2.9: Earth Work Chapter 2.11: Temporary Facilities Chapter 2.4: Biodiversity management Chapter 2.10: Traffic Management	Site wide, all roads and construction work areas.	Check the number of worker/staff that are aware of, and follow regulations and training regarding biodiversity and wildlife management Check the implementation induction training prior to works	Weekly	EPO, with support from HR Manager
10	KPI-EBS-01 Explosive: Storage condition	Chapter 2.2: Blasting and explosive Management Chapter 2.1: Health, Safety, and Security Management Chapter 2.11: Temporary Facilities Chapter 2.12: Quarry Management	Magazines	Check all explosive materials are stored in properly designed, safe, and secure locations. Check the storage meet the National standards for explosives storrage in appropriate magazines.	Monthly Yearly	Safety Officer
11	KPI-EBS-02 Explosive: Competency of worker	Chapter 2.2: Blasting and explosive Management Chapter 2.1: Health, Safety, and Security Management Chapter 2.11: Temporary Facilities Chapter 2.12: Quarry Management	All magazines and temporary explosives storage areas Transportation of explosives	Check the transportation for explosive materials between magazines and work sites implemented to comply with regulation Check the vehicles used for transporting explosives	Every transportation	Site Manager and Vehicle operators Safety Officer
12	KPI-EBS-03 Explosive: Incident caused by transportation	Chapter 2.2: Blasting and explosive Management Chapter 2.1: Health, Safety, and Security Management Chapter 2.11: Temporary Facilities Chapter 2.12: Quarry Management	All magazines and temporary explosives storage areas Transportation of explosives	Review of relevant qualifications and training of workers conducting activities in magazines Check the qualifications for working in magazines for workers and for vehicle operators involved in transporting explosives prior to initiating any work	Weekly	HR Manager Safety Officer
13	KPI-ER-01 Dissemination of Emergency Response Plan	Chapter 2.1: Health, Safety, and Security management	All sites	Check of document and poster of Emergency Response Plan at site whether they are available at all site	Monthly	ESHS Manager Safety Officer ERT members
14	KPI-ER-02 Understanding of Emergency Response Plan by Workers	Chapter 2.1: Health, Safety, and Security management Chapter 2.2: Waste Management	All workers	Check whether workers understand and able to carry out their roles in the event of an emergency by: 1) Check test results of all workers in induction traing 2) Check of interview results of sampled workers (5 % of workers)	Quarterly	ESHS Manager Safety Officer ERT members

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
15	KPI-ER03 Participation in Emergency Drill	Chapter 2.1: Health, Safety, and Security management	All project areas	1) Check attendance list to meet target attendance numbers 2) Check the drill record to confirm the prfomance of workers and coordinaters for required drill activities 3) check the emergency response plan (evacuation route, assembly point, safety equipment)	Every six months	ESHS Manager Safety Officer APO ERC ERT members
16	KPI-ER04 Capacity of Leaders in Emergency	Chapter 2.1: Health, Safety, and Security management	All project areas	Check ERT members that have current and appropriate qualifications and certifications to provide assistance in case of an emergency.	Quarterly	ESHS Manager Safety Officer
17	KPI-ES-01 Worker's Understanding erosion and sedimentation management	Chapter 2.9: Land clearing and earth Work Management	Chapter 2.9: All land clearing and earthworks areas	Review of training records to verify that all workers, including Perhutani employees, assigned to conduct land clearing and earthworks activities have received training in land clearing and/or earthworks procedures	· Prior to work at any location, · Monthly verification	EPO (supported by HR Manager)
18	KPI-ES-02 Perimeter erosion and sediment control, sediment trapping	Chapter 2.9: Earth Work management Chapter 2.11: Temporary Facilities Chapter 2.12: Quarry Management Chapter 2.3: Water Resources	Chapter 2.9: All land clearing and earthworks areas	Perimeter erosion and sediment control, sediment pond/sediment trapping are installed at defined area.	Daily inspection of sediment control devices Prior to demobilization of land-clearing crews	Site Supervisors (Daily) EPO (before demobilization
19	KPI-ES-03 uncontrolled erosion or landslide events	Chapter 2.9: Earth works Management Chapter 2.12: Quarry Management Chapter 2.3: Water Resources Chapter 2.11: Temporary Facilities	All quarry areas	Inspections of the exposed areas (Excavation, embankment) Number of significant uncontrolled erosion or landslide events	Daily site walkarounds for verification of erosion and slope stability measures in place; Minimum monthly inspections of slope stability in key sliding areas (or more frequently, depending on the stage of work)	Site Managers EPO
20	KPI-GBV-01 Workers knowledgeable and awareness of GBV and VAC	Chapter 2.7: Gender Management	All project areas	Verification all workers received orientation on CDW JV policy regarding GBV and VAC and procedures for reporting or seeking support regarding GBV and VAC in adjacent communities.	As needed: Orientation for all staff before starting work	HR Manager GBV/VAC Focal Point

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
21	KPI-GBV-02 GBV and VAC incidents handled through GBV and VAC Complaints mechanism and resolved	Chapter 2.7: Gender Management Chapter 2.8: Stakeholder Engagement	All project areas	Review the number of GBV and VAC incidents handled through the GBV and VAC Complaints mechanism and resolved within an appropriate time frame.	Monthly report on grievance management.	CLO, GRM team, GBV complaints team
22	KPI-HR-01 Worker recruitment	Chapter 2.8: Stakeholder Engagement Chapter 2.7: Gender Management Chapter 2.6: HR Management	All project areas	Monitor proportion of workers recruited from local communities (vs. target of 40% of construction workers)" Review of the advertisements related to job opportunities is posted in public that can be accessed by anyone without mentioning any race, religion, gender, to join. Monitor the proportion of women and other vulnerable groups employed Review the priority for local employment of workforce (target 40% workforce	Monthly	HR Manager, CLO
23	KPI-HR-02 Worker that have written contracts with all required information	Chapter 2.7: Gender Management Chapter 2.1: Health, Safety, and Security Management Chapter 2.2: Waste Management	All project areas	Review of that recruitment advertisements include clearly stated and reasonable criteria for job vacancies; Review the priority for local employment of workforce (target 40% workforce); and Review the recruitment advertisements have been provided in a non-discriminatory manner (including minimum age allowed to be worker) that inclusion of women and other vulnerable groups, accessible locations for the public, and in particular for local communities.	Monthly	HR Manager, CLO
24	KPI-HR-03 Gender management	Chapter 2.7: Gender Chapter 2.6: HR Management	Staff orientations on national regulations, CDW JV Policies, and Code of Conduct (Appendix 5).	Review that all workers understand, are aware of and implement CDW JV policies and Code of Conduct. Review that worker provided with adequate protection from dangerous working conditions Review Gender inclusiveness in internal and external communications and engagement processes	Annual review on workers' awareness.	HR Manager

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
25	KPI-HR-04 GBV mitigation process	Chapter 2.6: HR Management	Project Site	Review of induction of GBV awareness to all employees. Review of GBV cases and resolution processes.	Quarterly review	Gender-based violence Complaint Teams HR
26	KPI-HR-05 Local and third party supplier	Chapter 2.6: HR Management	Project Site	Review of the list of available local supplier Review the contract with supplier Review bidding documents and contracts of suppliers	Quarterly review	Administration team
27	KPI-LC-01 Land clearing pre-survey work	Chapter 2.9: Land Clearing and Earth Work Chapter 2.11: Temporary Facilities Chapter 2.12: Quarry Management Chapter 2.4: Biodiversity	All temporary facilities construction sites	Review that boundaries are properly marked Review of pre-assessment reports for all land clearing blocks Review that land clearing has only occurred within specified boundaries." Review of post-clearing activities to assess any exceedances in planned boundaries Check the calculation of actual areas of land cleared compared to planned areas as defined for each BIA in Table 2.4.3	Monthly review	EPO
28	KPI-LC-02 Land clearing implementation and post-survey work	Chapter 2.9: Land Clearing and Earth Work Chapter 2.11: Temporary Facilities Chapter 2.12: Quarry Management Chapter 2.4: Biodiversity	All temporary facilities construction sites	Review of pre-assessment reports completion approved by the CSE prior to clearing starting Review all land clearing activities had completed as planned area Review the post-clearing assessment report completed by the Wildlife Expert. Review of wildlife incident reports if any	Verification of all pre-assessment reports prior to land clearing activities commencing in any work site/block Monthly review of incident reports for any reporting wildlife injuries or mortalities	Site Manager EPO
29	KPI-LC-03 Land-clearing related training	Chapter 2.9: Land Clearing and Earth Work	Workers conducting land clearing	Review that all workers involved in land clearing have received training on the land clearing procedure and documentation, Earthwork management, Biodiversity Management.	Verification that all staff have received training on the land clearing procedures prior to starting work.	HR Manager, EPO

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
30	KPI-NV-01 Noise and Vibration condition	Chapter 2.10: Traffic Management Chapter 2.12: Explosives and Blasting Management Chapter 2.12: Quarry Management Earth Work Management Chapter 2.11: Temporary Facilities	All traffic management areas	Monitor of noise levels at activities boundary and at sensitive receptors closest to the work areas. Monitor of vibration levels at sensitive receptors closest to the work areas, include pre-condition surveys of sensitive buildings within the vibration impact zone .	Routine Daily observation or continuous attention to noise level and noise management practices being implemented at work sites and project roads (TAR, PAR and EAR) Monthly summary of community grievances regarding noise and vibration generated by the project activities.	Site Managers, EPO, ESHS Manager CLO Maintenance Supervisor
31	KPI-NV-02 Noise and Vibration mitigation	Chapter 2.10: Traffic Management Chapter 2.12: Explosives and Blasting Management Chapter 2.12: Quarry Management Chapter 2.9: Earth Work Management Chapter 2.11: Temporary Facilities	All traffic management areas	Monitor grievances from communities related to noise generation and vibration issues Review the implementation efforts to minimize the noise and vibration generation	Daily observation or continous attention to noise level and noise management practices being implemented at the designated points/places	ESHS Manager, EPO
32	KPI-OHS-01 PPE and Safety Prevention Equipment	Chapter 2.1: Health, Safety, and Security Management Chapter 2.9: Earth Work Management Chapter 2.11: Temporary Facilities Management	All site and all workers	Daily check of workers whether they wear required PPE properly at the site Check Daily toolbox meetings to verify PPE required during work Check of weekly report on daily check results of PPE usage of workers Check of inspection and maintenance of PPE to conform PPE quality	1) Daily 2) Weekly 3) Monthly	Site supervisors Safety Officer
33	KPI-OHS-02 Nearmisses and accident	Chapter 2.1: Health, Safety, and Security Management Chapter 2.12: Quarry Management Chapter 2.9: Earth Work Management Chapter 2.11: Temporary Facilities	All site and roads, all workers and communities	1) Daily review of report regarding nearmisses and no-lost-time injuries, and actions for counter measures to avoid serious accidents 2) Weekly review of follow-up report regarding nearmisses and no-lost-time injuries 3) Monthly review of report regarding nearmisses and no-lost-time injuries occurred in the month 4) Monthly review of report regarding induction training, follow-up training, TBM to avoid accident at sites and roads.	1) Daily 2) Weekly 3) and 4) Monthly	ESHS Manager Safety Officer Site supervisor CLO

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
34	KPI-OHS-03 Occupational Diseases	Chapter 2.1: Health, Safety, and Security Management Chapter 2.12: Quarry Management Chapter 2.9: Earth Work Management Chapter 2.11: Temporary Facilities	All site and roads, all workers	1) Daily review of report regarding occupational diseases, and actions for counter measures to avoid occupational diseases 2) Weekly review of follow-up report regarding occupational diseases 3) Monthly review of report regarding occupational diseases occurred in the month 4) Monthly review of report regarding induction training, follow-up training, TBM to avoid accident at sites and roads.	1) Daily 2) Weekly 3) and 4) Monthly	Health Office ESHS Manager Safety Officer Site supervisor
35	KPI-OHS-04 Health facilities	Chapter 2.1: Health, Safety, and Security Management	Site medical facilities	Monthly inspection of first aid equipment inventory at each work site; Quarterly verification of content and functionality of first aid equipment (including clinic and ambulance) Monthly verification of medical facilities staffing levels	Monthly audit of medical facilities and equipment, availability of medical staffing during the period	Safety Officer, ESHS Manager
36	KPI-OHS-05 HSSE Training	Chapter 2.1: Health, Safety, and Security Management	Worker orientations and training	Check that all workers participation in HIV training. Check HIV training conducted in each affected community	Monthly review of training records to verify of all workers on site receiving orientation on OHS aspects of their job Random checks of workers and their training status during daily ‘walk arounds’.	HR Manager; Safety Officer
37	KPI-OHS-06 Community safety	Chapter 2.1: Health, Safety, and Security Management Chapter 2.10: Blasting and explosive management Chapter 2.10: Traffic management	All side wide	Check the community experience the near misses, injuries and fatalities by incident/accidents affected by Project activities Monitor the community impact by worker influx, migrant workers, work camps, increase in diseases, GBV.	Monthly review Semesterly consultations with local communities.	CLO
38	KPI-PCR-01 PCR incident	Chapter 2.5: Physical Cultural Resources Management Chapter 2.9: Land Clearing Chapter 2.12: Quarry Management Chapter 2.9: Earth Work Management Chapter 2.11: Temporary Facilities Management	All quarry areas	Check the number of incidents of damaged or unauthorized removal of PCR or PCR protection Monitor the PCR discoveries and Chance Finds Procedure Monitor the PCR relocation or removal process	As needed, if PCR is discovered	HSE Manager
39	KPI-PCR-02 PCR grievances	Chapter 2.5: Physical Cultural Resources Management Chapter 2.9: Land Clearing and Earth	PCR sites	Check the number of grievances from stakeholders regarding work conducted at or around existing PCR or chance finds of PCR were handled in timely manner	Monthly review of GRM Semesterly consultations with local	CLO

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
		Work Management Chapter 2.12: Quarry Management Chapter 2.8: Stakeholder Engagement Management Chapter 2.11: Temporary Facilities Management			communities.	
40	KPI-SE-01 Stakeholders knowledgeable of current Project information	Chapter 2.12: Quarry Management Chapter 2.6: Labor and Employment Management	Local communities and notice boards	Verification that all information disclosures posted in local communities and quarry project information notice boards are up-to-date related to blasting schedules	Monthly review of notices posted, or when needed to be updated	CLO Safety Officer
42	KPI-SE-02 Stakeholders grievances concerning project employment/opportunities	Chapter 2.1: Health, Safety, and Security Management Chapter 2.8: Stakeholder Engagement Chapter 2.7: Gender Management	Local communities / Grievance registers.	Check the community grievances concerning recruitment, HR management, or CDW JV labor and employment policies.	· Monthly review of External GRM register and CDW JV grievance redress activities	CLO
43	KPI-SE-03 Stakeholders grievances concerning project pollution impact, land disturbance	Chapter 2.11: Temporary Facilities Management Chapter 2.10: Traffic Management Chapter 2.12: Quarry Management Chapter 2.1: Health, Safety, and Security Management Chapter 2.8: Stakeholder Engagement Chapter 2.2: Waste Management Chapter 2.7: Gender Management Chapter 2.3: Water Resource Management Chapter 2.6: Labor and Employment Management	Community engagement activities	Check the community comfort and grievances concerning disturbances from the project: traffic, air, noise, water, and security. Check the community grievances concerning regarding land access, land rights, resettlement, or land use compensation Check the community grievances concerning recruitment, HR management, or CDW JV labor and employment policies.	Verification that information disclosure is conducted prior to any significant disturbances to communities from batching plant operations	CLO
44	KPI-SS-01 Security related accident	Chapter 2.1: Health, Safety, and Security Management	All Project areas	Check the number of securityrelated incidents or reports at the Project site.	Monthly review of all reports on incidents/accidents during the period and corrective action plans developed.	Safety Officer, ESHS Manager, Administration Manager, SecurityManager
45	KPI-SS-02 Security with appropriate equipment and facilities	Chapter 2.1: Health, Safety, and Security Management	All work areas	Monitor the percentage of all security staff/positions with functional equipment and maintenance of security equipment inventory that can support normal and elevated security conditions at the Project site.	Monthly audit of security apparatus and equipment used and backup inventory at all work areas.	HSSE Manager, Administration Manager (Security chief is responsible for doing the work so they should not be responsible for monitoring that it has been done)

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
46	KPI-SS-03 Security received training and Code of Conduct	Chapter 2.8: Stakeholder Engagement Chapter 2.1: Health, Safety, and Security Management Chapter 2.11: Temporary Facilities	Managing grievances received from community or external stakeholders	Percentage of security staff that have completed site specific training and orientation on Code of Conduct, CDW JV policies, and grievance mechanisms before starting work on site.	Monthly	CLO, GRM team
47	KPI-TM-01 Driver received training	Chapter 2.10: Traffic Management Chapter 2.12: Quarry Management Chapter 2.11: Temporary Facilities	All traffic management areas	Percentage of drivers and operators that have received relevant training, including HSE training and specific training on traffic management.	Monthly	HR Manager, Safety Officer
48	KPI-TM-02 Driver infraction	Chapter 2.10: Traffic Management Chapter 2.12: Quarry Management Chapter 2.11: Temporary Facilities	All traffic management areas	Check the number of vehicle or driver safety infractions.	Daily and monthly review of safety infraction reports related to traffic or vehicle operations.	Safety Officer, ESHS Manager
49	KPI-TM-03 Traffic involving accident	Chapter 2.10: Traffic Management Chapter 2.11: Temporary Facilities Chapter 2.9: Earth Work Management	/All traffic management areas	Check the number incidents involving Project vehicles or traffic management activities	Daily and monthly review of safety incident reports related to traffic or vehicle operations.	Safety Officer, ESHS Manager
50	KPI-UW-01 Confined space gases	Chapter 2.1: Health, Safety, and Security Management	All underground work areas	Monitor of noxious gases, carbon dioxide, carbon monoxide and hydrogen sulfide contents in the underground airborne are conducted; The concentration of noxious gases, carbon dioxide, carbon monoxide and hydrogen sulfide contents in the underground airborne comply with the national standard.	Weekly monitoring on noxious gases, carbon dioxide, carbon monoxide and hydrogen sulfide contents in the underground. Monthly auditing of weekly monitoring results.	Entry Supervisors Safety Officer
51	KPI-UW-02 Confined space temperature	Chapter 2.1: Health, Safety, and Security Management	All underground work areas	Monitor the dry and wet bulb temperatures met the standard.	Daily monitoring. Monthly auditing of daily monitoring reports.	Entry Supervisors Safety Officer
52	KPI-UW-03 Confined space ventilation	Chapter 2.1: Health, Safety, and Security Management	All underground work areas	Check the number of required ventilations for confined space have been installed.	Daily monitoring. Monthly auditing of daily monitoring reports.	Entry Supervisors Safety Officer
53	KPI-UW-04 confined space management implemented	Chapter 2.1: Health, Safety, and Security Management	Underground works and other confined space areas.	Check the Induction of confined space management shall be implemented	Monthly review of training records to verify induction conducted for all workers that could be required to work in an underground area. Monthly check of workers underground and their training status.	Safety Officer Construction Manger is responsible for managing the work so they shouldn't be responsible for monitoring that the work has been done.

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
54	KPI-WM-01 Spills or improper waste disposal incidents	Chapter 2.2: Waste Management Chapter 2.11: Temporary Facilities Chapter 2.12: Quarry Management	Number of significant spills or improper waste disposal incidents	Check the number of significant spills or improper waste disposal incidents	Weekly Daily walk arounds of work sites; Weekly inspection of waste containment systems and areas; Monthly review of reports of environmental or safety incidents that resulted from, or resulted in a significant spill.	Site Superviosrs (daily) EPO (weekly, monthly)
55	KPI-WM-02 Hazardous wastes stored in properly designed areas and/or containers	Chapter 2.3: Water Resources Management Chapter 2.9: Land clearing and Earth Work Management Chapter 2.12: Quarry Management Chapter 2.11: Temporary Facilities Chapter 2.2: Waste Management	Hazardous waste storage sites, site wide	Check the percentage of hazardous wastes stored in properly designed areas and/or containers	Daily walk-arounds to inspect housekeeping at hazardous waste storage sites; Monthly inspections and reports on waste management facilities; Quarterly audits of waste management practices in all relevant work sites; Semesterly accounting and reporting on waste register	· Building and facility verifications done by Construction Manager and EPO; · Daily walk-arounds and housekeeping checks by Site Manager; · Monthly inspections by EPO; · Quarterly audits by EPO and Site Managers; · Semesterly accounting of waste registers
56	KPI-WM-03 Demand for waste container and waste mobilization	Chapter 2.2: Waste Management	Site-wide	Monitor the hazardous waste container; Regular inspection of temporary hazardous storage; and Regular monitoring off the hazardous waste manifests.	Daily walkarounds to inspect on temporary hazardous waste storage and hazardous waste container; and Monthly audit on hazardous waste manifests.	ESHS Manager, CLO
57	KPI-WR-01 Exceedances in applicable water quality standards	Chapter 2.2: Waste Management	All facilities, site wide	Regular inspections of work areas and waste management areas for signs of leaks and/or spills to the environment. Regular inspection of spill containment structures and equipment to ensure they are functional (no cracks, leaks, or damaged areas) and maintained according to the manufacturer's specifications (for equipment)	Daily walk-arounds to inspect housekeeping at waste storage and management sites Monthly inspections and reports on waste management facilities.	Daily walk-arounds and housekeeping checks by Site Manager; Monthly inspections by EPO; Quarterly audits by EPO and Site Managers;

No	KPI	Related Plan	Locations / Activities	Monitoring Methods	Frequency	PIC
58	KPI-WR-02 Incidents of contamination of water resources	Chapter 2.12: Quarry Management Chapter 2.2: Waste Management Chapter 2.9: Earth Work Management Chapter 2.11: Temporary Facilities Chapter 2.3: Water Resources Management	Quarry areas and work facilities areas	Number of incidents of contamination of water resources or exceedances in applicable water quality standards	Daily walkarounds of the construction site to ensure sedimentation and run-off control measures are in place and functioning Daily monitoring of TSS and turbidity upstream and downstream of the work facilities construction areas	Site managers EPO
59	KPI-WR-03 Wastewater discharges exceed water quality standard	Chapter 2.2: Waste Management	Waste water facilities	Percentage of construction wastewater discharges to the environment exceeding relevant water quality standards (Minister of Environment Regulation No. 5 of 2014 concerning Wastewater Quality Standards).	Monthly monitoring regarding waste water compared to the national standards for water quality based on water source and use.	ESHS Manager EPO
60	KPI-WR-04 Water abstraction occurred when river discharge below the permitted E-flow	Chapter 2.3: Water management Chapter 2.12: Quarry Management Chapter 2.11: Temporary Facilities	Local communities / grievance register	Number of incidents where water extraction is occurring when water levels in the Cisokan River are below the permitted E-flow (i.e., 0.55 m3/s)	Monthly review of grievance register Opportunistic observations or engagement with local residents	CLO

PLN

UIP JAWA BAGIAN TENGAH
UPP JBT 2

Nomor : 0704/KIT.01.01/F44020000/2022
Lampiran : 1 Set
Sifat : Segera
Hal : Pemberitahuan Pekerjaan Perbaikan Access Road PLTA Upper Cisokan Pumped Storage

7 November 2022

Kepada

Yth. 1. Camat Rongga
2. Kapolsek Gunung Halu
3. Danramil Gunung Halu
4. Kepala Desa Sukaresmi

Merujuk Surat Kepala Desa Sukaresmi No. 142.44/ 566 /Ds Tanggal 13 Oktober 2022 Perihal Permohonan Perbaikan Jalan Access Road PLN, dengan ini kami memberitahukan bahwa telah dilakukan upaya pertama berupa kegiatan survey dengan Kontraktor CGGC – DL E&C – WIKA Joint Venture sebagai tahapan proses design penanganan longsor. Adapun upaya lain di lapangan sudah dilakukan pengamanan dengan telah dipasang rambu peringatan, safety line, dan besi pembatas (dokumentasi terlampir) sehingga diharapkan sekaligus dimohon agar warga yang melintas lebih waspada dan berhati-hati.

Demikian kami sampaikan, atas perhatiannya diucapkan terima kasih.

MUP II UPP JBT 2,

NANDA DANI ANDRIANTO

Tembusan:

1. GM UIP JBT PLN
2. SRM OP KONS II UIP JBT PLN
3. PLH SRM PERTNHAN DAN KOM UIP JBT PLN
4. CGGC - DL E&C - WIKA Joint Venture
5. PLN E Proyek PLTA Upper Cisokan

Komplek Kantor PLN PLTA UPPER Cisokan
Desa Sarinagen RT. 001 RW. 008, Kec. Cipongkor Kab. Bandung Barat
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Paraf _____

LAMPIRAN DOKUMENTASI KEGIATAN SURVEY DAN PENGAMANAN

Appendix 4

CGGC – DL - WIKA JOINT VENTURE (CDW JV)

JOINT VENTURE

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

16 LOCATION LANDSLIDE ROAD REHABILITATION PLAN

Site Specific Contractor Environmental and Social Management Plan and Monitoring

Version 1.0 for Initial Construction

CLIENT:

PT. PERUSAHAAN LISTRIK NEGARA (PERSERO)
UNIT INDUK PEMBANGUNANJAWA BAGIAN TENGAH
Jl. Karawitan No. 32 Bandung 40264
Telp: (022) 7320595, Fax. (022) 7320596, E-mail: sekretariatuipjbt@gmail.com

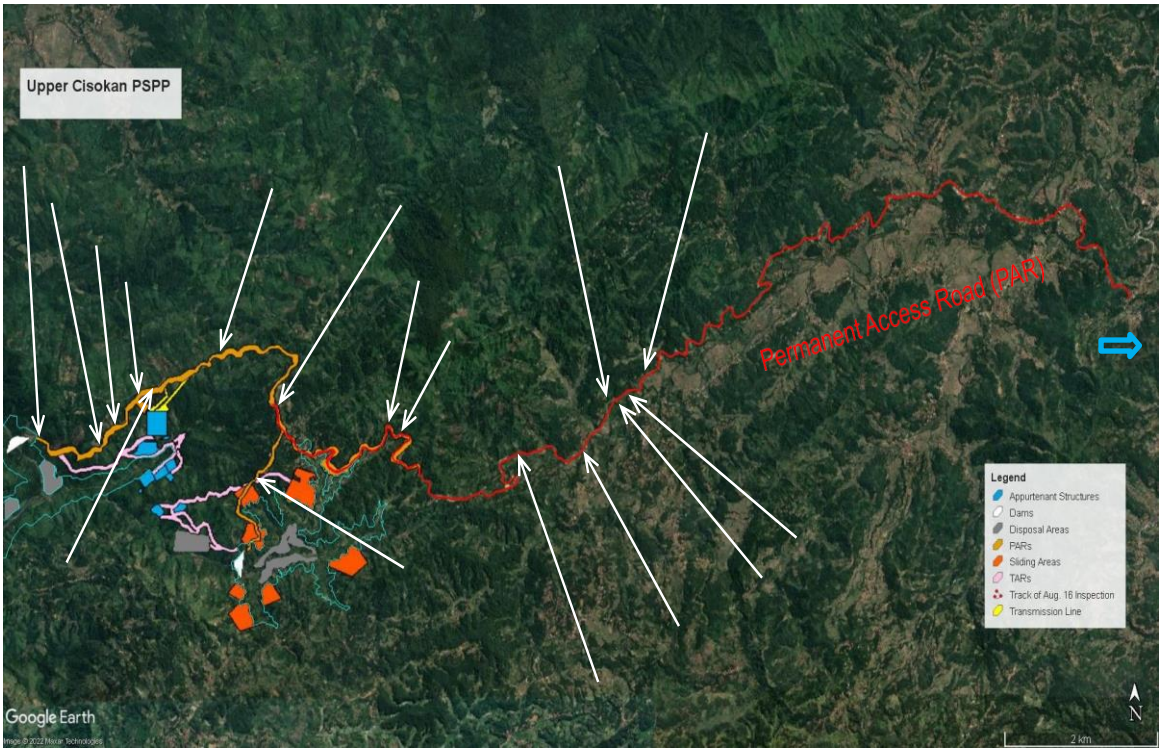
JOINT VENTURE

Revision sheet

REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL

The Proposed the document

The purpose of this document is to provide an updated picture regarding the road conditions of the UCPSPP project. This document is based on a joint inspection between the contractor CDW JV, PLN and Engineer (CSE).
Location Road Rehabilitation Plan are :

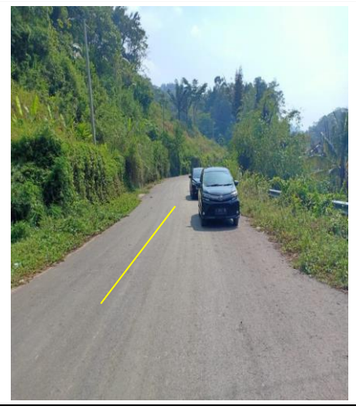


1. Sta 10+150 : Reported on August 18
2. Sta 10+450 : Reported on August 18
3. Sta 10+600 : Reported on August 18
4. Sta 10+700 : Reported on August 18
5. Sta 11+250 : Reported on August 18
6. Sta 12+400 : Reported on August 18
7. Sta 15+700 : Reported on August 18
8. Sta 15+950 : Reported on August 18
9. Sta 18+500 : Reported on August 18
10. Sta. 20+700 : Reported on September 06
11. Sta. 21+500 : Reported on September 06
12. Sta. 21+700 : Reported on September 06
13. Sta. 22+300 : Reported on September 06
14. Sta. 22+550 : Reported on September 06
15. Sta. 23+800 : Reported on September 06
16. Sta. 18+950 to Upper Dam : Reported on September 06

The detail of road condition are like table 1 bellow.

Table 1: Location Road Rehabilitation Plan

No	Location	Photograph	Finding	Suggested actions to take:	Remarks
1	STA 10+150	**August** 	✓ Saturated sediment with water was washed out to road surface. ✓ Capacity of side ditch was not enough to accommodate and buried.	✓ Need to clean up all the sediment materials on the existing road and on the side ditch. ✓ Need to install gabion to protect the landslide and to avoid the similar incident	✓ Cleaning Was Done
2	STA 10+450	 **August 16** 	✓ Saturated sediment with water was washed out to road surface (mountain side). ✓ Sliding of slope was occurred due to groundwater rising caused by heavy rain (valley side).	✓ Need to clean up all the sediment materials on the existing road and on the side ditch . ✓ Need to install warning sign and safety line along 50 m, so the road user will only use 1 lane (mountain side).	✓ Done

3	STA 10+600	 	✓ Saturated sediment with water was washed out to road surface. ✓ Capacity of side ditch was not enough to accommodate and buried.	✓ Need to clean up the sediment materials especially from the side ditch.	✓ Done
4	STA 10+700	 	✓ Saturated sediment with water was washed out to road surface. ✓ Capacity of side ditch was not enough to accommodate and buried.	✓ Need to clean up all the sediment materials especially from the side ditch	✓ Done
5	STA 11+250	 	✓ Slope protection works (stone masonry retaining wall) was not installed to damaged portion because meandering river course is closely located. ✓ Sliding of slope was occurred due to groundwater rising caused by heavy rain. ✓ Cracks at the pavement gave concerns about further sliding of slope.	✓ Need to install warning sign and safety line along 100 m, so the road user will only use 1 lane (mountain side).	✓ Done
		 		✓ Need to install safety line along 100m to protect road users.	✓ Done

6	STA 12+400	 	Collapse of shoulder of terrace paddy field into PAR due to heavy rain.	✓ Need to clean up all the sediment materials on the existing road and on the side ditch.	✓ Done
7	Sta 15+700	 	Overflow of discharge water with sediment along side ditch.	✓ Need to clean up all the sediment materials on the existing road and on the side ditch.	✓ Done
8	STA 15+950	 	✓ Slope protection works (gabion) was not installed to damaged portion because slope angle is steep like cliff. ✓ Sliding of slope was occurred due to groundwater rising caused by heavy rain. ✓ Cracks at the pavement gave concerns about further sliding of slope.	✓ Need to install warning sign and safety line along 100 m, so the road user will only use 1 lane (mountain side).	✓ Done

		 		✓ Need to install safety line along 100m to protect road users.	✓ Done
9	Sta 18+500	  	✓ Valley side slope further slide and crack extension occurred on April 2022. ✓ Valley side slope collapse by continuous rain on September 6, 2022.	✓ Need to install warning sign and safety line along 100 m, so the road user will only use 1 lane (mountain side).	✓ done
				✓ Need to install safety line along 100m to protect road users.	
10	STA 20+700		✓ Saturated sediment and weathered rock with water was washed out to road surface	✓ Need to clean up sediment materials on the existing road and on the side ditch. ✓ Recommend to retain sediment material out of road and side ditch for the purpose of counter-weight	

11	Sta 21+500		✓ Saturated sediment and weathered rock with water was washed out to road surface.	✓ Need to clean up sediment materials on the existing road and on the side ditch.	✓ Done
12	Sta 21+700	   	✓ Saturated sediment and weathered rock with water was washed out to road surface.	✓ Need to clean up sediment materials on the existing road and on the side ditch.	✓ Done
13	STA 22+300		✓ Sliding of slope was occurred due to groundwater rising caused by heavy rain (valley side).	✓ Need to install warning sign and safety line along 50 m, so the road user will only use 1 lane (mountain side).	✓ Done

		 			
14	STA 22+550	 	✓ Saturated sediment with water was widely washed out to road surface.	✓ Need to clean up sediment materials on the existing road and on the side ditch.	✓ Done

15	STA 23+800		✓ Saturated sediment and weathered rock with water was washed out to road surface	✓ Due to unstable top slope surface by continuous small collapse, cleaning of the road and side ditch is not recommended considering. ✓ Suggested action is: Making temporary access to slope top, Knock and trimming unstable rock from surface, Apply slope protection, Clean the road and side ditch to recover normal access.	
16	Sta 18+950 (To Upper Dam)	 	✓ - Saturated sediment and weathered rock with water was washed out to road surface.	✓ Need to clean up sediment materials on the existing road and on the side ditch.	

Appendix 5

CGGC – DL - WIKA JOINT VENTURE (CDW JV)

JOINT VENTURE

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

COMMUNICATION PLAN & GRM FLOW ROAD REHABILITATION PLAN

Site Specific Contractor Environmental and Social Management Plan and Monitoring

Version 1.0 for Initial Construction

CLIENT:

PT. PERUSAHAAN LISTRIK NEGARA (PERSERO)
UNIT INDUK PEMBANGUNANJAWA BAGIAN TENGAH
Jl. Karawitan No. 32 Bandung 40264
Telp: (022) 7320595, Fax. (022) 7320596, E-mail: sekretariatuipjbt@gmail.com

JOINT VENTURE

Revision sheet

REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL

1. Introduction

The Road Rehabilitation project will provides a comprehensive mechanism for grievance redress through form for written filing of grievance, in accordance with the procedures and guidelines by the World Bank.

The form will be placed on:

I. For Local community :

a. Head Distric Rongga will located GRM Box at Cibitung Head Village and Sukaresmi Head Village

b. Others located as per result from local community meeting in 3-4 December 2022

II. For CDW JV and Sub Contractor Workers will put in the work area and office

2. Roles and Responsibilities

The specific roles and responsibilities to implement, manage, monitor and evaluate the implementation of GRM :

Table : Role and Responsibilities

Activity	Position	Responsibilities
Internal grievance handling	CDW JV Internal Grievance Team HR Team	▪ Overall responsibility for effective implementation of the worker grievance mechanism (workplace and accommodation) including appropriate resolution of grievances; ▪ Receive and register all grievances submitted through the internal/employee grievance mechanism ▪ Support investigation and resolution processes for grievances
External grievance handling	Grievance Team CLO Gender service provider	In collaboration with PLN Grievance Team: ▪ Engage with communities regarding external GRM, complaints about worker behavior, GBV, and crime. ▪ Receive and register all grievances submitted through the external grievance mechanism, complaint box, hotline, etc. ▪ Support investigation and resolution processes for grievances ▪ Train workers on engagement with community members

3. Principles of GRM Handling

The GRM is based on the following guiding principles:

Responsiveness and Confidentiality
Adopting the doctrine that there is always room for improvement, the GRM will entertain all types of complaints, comments and suggestions, with a view to improve the project's efficacy and efficiency.

Objectivity and Independence
The mechanism empowers the Grievance Redress Cell to operate independently and objectively while handling grievances and to ensure that all information, stakeholders and records required for inquiry and analysis are easily accessible.

Fairness
The GRM will equally consider all complaints irrespective of their nature, size and complexity.

Timeliness
All grievances, irrespective of their nature and size shall be considered and corrective actions taken within 25 working days.

Participation
The GRM encourages any stakeholders to lodge complaints, make suggestions, including for improvement of the GRM.

4. GRIEVANCE Flow Chart

All grievances will be handled in a discreet and objective manner. Figure 4-1 outlines the Project's procedure for managing and monitoring grievances relating to Project activities.

All grievances, including the resolution process, will be recorded in the combined Grievance Register, managed by PLN, including complaint detail, a summary of the grievance, the resolution or agreement on proposed actions (between the Project and the complainant), and monitoring actions taken in response to the grievance.

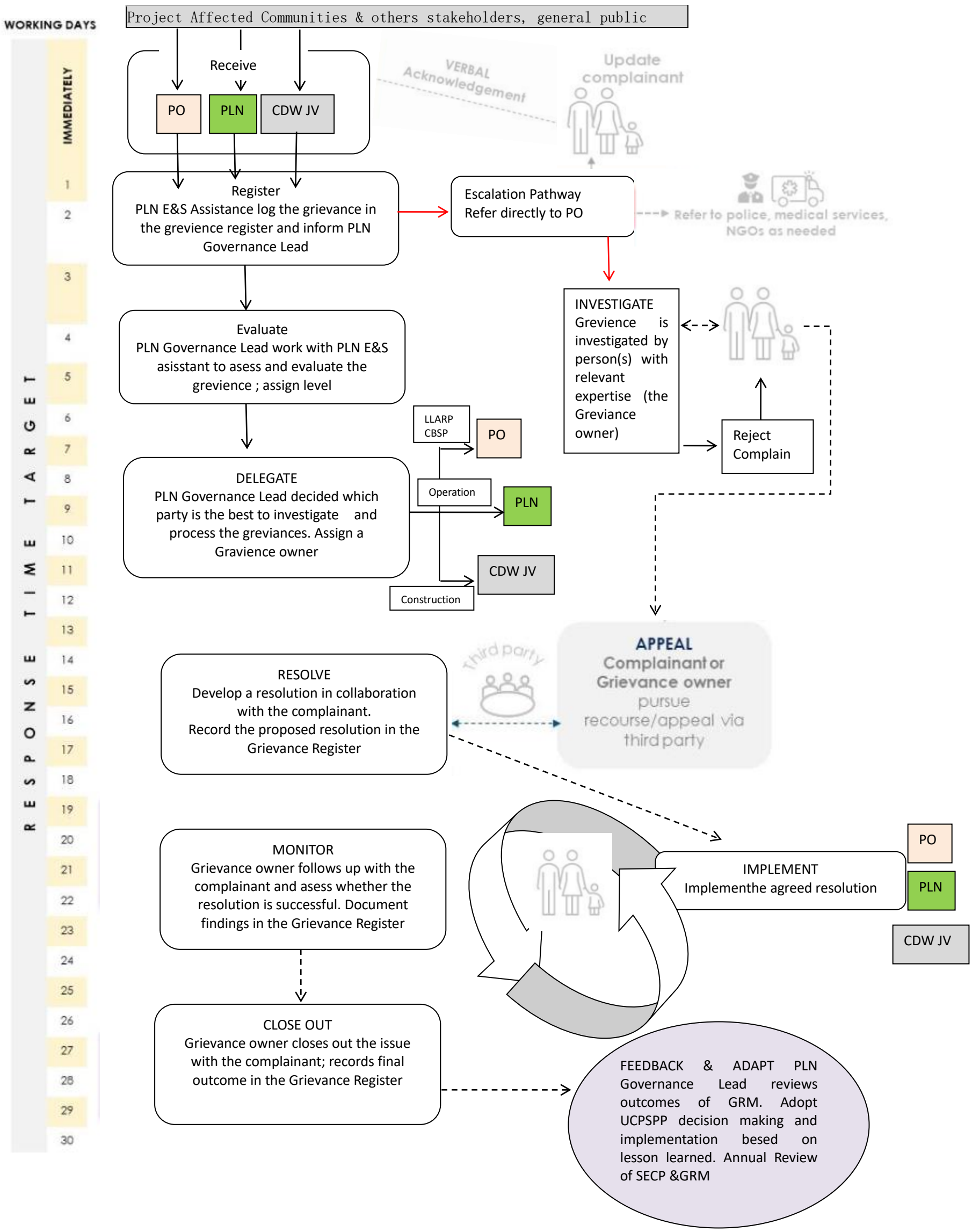


Figure4.1 Grievance Management Procedure

5. Milestone for Socialization

Socializing the project expectations and gaining support from all stake holder is a key component that is sometime overlooked.

In the Road Rehabilitation Project, several activities related to socialization will be carried out to all stakeholders. These activities are described in detail in the table 5.1 Milestone Socialization below.

Table 5.1 : Milestone for Socialization

No.	Program Issue/Activity	Stakeholder	Purpose of Engagement	Engagement Strategy	Schedule of Engagement
1.	Road rehabilitation scope of activities and rationale; E&S risks management; Grievance mechanism process	- Local Community : A. The Road rehabilitation will influence the traffic from three kampongs of Sukaresmi village, Rongga subdistrict namely: 1. I. Cimarel: affected Land location + Traffic 2. Ii. Lembur Sawah: Traffic 3. Iii. Pasir Laja: Traffic - Women/women groups - Vulnerable household - NGO	- Information dissemination to community surrounding road rehabilitation activities - Ensure all affected people are well informed about the road rehabilitation construction, the associated risk/impact, mitigation measures and emergency response prepared, as well as grievance mechanism procedures for them to communicate and convey complain.	- Meetings, workshops utilizing effective platform to reach out the community such as village meetings, *PKK* and *Majlis Taklim* targeting women. The content of workshop is: i. Presentation about works schedule from Road Rehabilitation. Ii. Impact from the project Iii. Mitigation iv. Information about manpower requirement and how to apply and the process. V. Information about GRM - Invitation to public meetings.	Put date and time or milestones : 1. Invitation to Local Community 24 November 2022 2. 1 December 2022 - Head District Rongga, Head Village Cimarel, Lembur Sawah and Pasir Laja 3. 2 December 2022 : Police and Armi 4. Meeting and Workshop Local Community A. District Rongga consist of : I. Cimarel village : 03 December 2022 Ii. Lembur sawah Village. :03 December 2022 Iii. Pasir Laja Village : 03 December 2022
2.	GBV Grievance mechanism implementation Arrangement	- Women/women groups/ Representative - Local Community - Affected communities, - those most vulnerable to risks of GBV, - other protection actors, - youth group	Giving information about GBV Grievance Mechanism Implementation Arrangement and to get feedback from the community	- Meetings, workshops utilizing effective platform to reach out the community such as village meetings, *PKK* and *Majlis Taklim* targeting women. - Training on grievance mechanism for designated team members with general orientation for others. - Invitations to public meetings	Will be conducted in parallel during construction 1. 11 January 2023 2. 23 March 2023
5.	Recruitment of local workers (for construction)	- Government of West Bandung District and Cianjur District - Sub District head Rongga and Cipongkor - Village headmen: Cibitung Sukaresmi, Sirna Galih and Cijambu - Labor department : Cianjur and West Bandung	Consultation with Muspida (*Musyawarah Pimpinan Daerah*) and Muspika (*Musyawarah Pimpinan Kecamatan*) on the process of local workers recruitment to ensure a fair, non-discriminative and transparent recruitment process following PLN procurement policy;	Official correspondence and meetings, progress reports Permitting procedures	Two meetings will be held by CDW JV during project construction: 1. Meeting will be held before recruitment : 1-2 December 2022 2. Meeting during recruitment period : 12- 13 December 2022.

		Project Implementer (PLN and Contractor)	- To lead a fair and transparent, non-discriminative and transparent recruitment process - Design and provide training, whenever possible and required to increase local non-skill workforce to be recruited during construction. - Job ads encouraging women to apply, enforcing non-discriminatory hiring practices, and providing women-friendly sites.		CDW JV plan to have three meetings during project construction, one internal (PLN and Contractor) meeting and one meeting with MUSPIDA/MUSPIKA before recruitment and one community meeting during recruitment period Will be conducted in parallel during construction 1. Internal Meeting PLV and CDW JV : 29 November 2022 2. Meeting with MUSPIDA/MUSPIKA : 1-2 December 2022 3. Local Community : 12- 13 December 2022.
		Local Communities	Empowerment, Ownership & Reduce Cost		Prior to project construction, at least one community meeting will be held during recruitment period The meeting will be held with Local Community : 12- 13 December 2022.
8.	Project health and safety impacts and mitigation measures; Employment opportunities; Environmental concerns;	- Community surrounding the Project site - Women/women groups - Vulnerable household - Youth group	To raise awareness and inform about project impact on local community	- Public meetings, separate meetings specifically for women and vulnerable; - Mass/Social Media Communication – TV, radio, Facebook; - Disclosure of written information - Brochures, posters, flyers, website Information desks in Municipalities; - Grievance mechanism	- Meetings in all affected municipalities with ongoing construction (as needed); - Communication through mass/social media (as needed); - Information desks with brochures/posters in affected municipalities (continuous)
9.	Satisfaction with engagement activities and GRM; Grievance mechanism process; Community health and safety measures during construction and operation phase; Accessing resettlement compensation and completing land transfer (for PAPs who have not yet received it, if any)	- Community affected by project - Vulnerable household	- Ensure their (community) voices and grievance are properly addressed during the operation - Collect further information on stakeholder perception of the project associated impacts and benefits, concerns and suggestions	- Meetings in all affected municipalities - Information desks with brochures/posters in affected municipalities - Survey	- Meetings in all affected municipalities (one per year); - Communication through mass/social media (as needed); - Information desks with brochures/ posters in affected municipalities (continuous) - Satisfaction survey will be conducted simultaneously with other engagement program if needed

Appendix 6

CGGC – DL - WIKA JOINT VENTURE (CDW JV)

JOINT VENTURE

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

SENSITIVE RECEPTOR ROAD REHABILITATION PLAN

Site Specific Contractor Environmental and Social Management Plan and Monitoring

Version 1.0 for Initial Construction

CLIENT:

PT. PERUSAHAAN LISTRIK NEGARA (PERSERO)
UNIT INDUK PEMBANGUNANJAWA BAGIAN TENGAH
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JOINT VENTURE

Revision sheet

REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL

Introduction

CW JV received orders to carry out road rehabilitation work as many as 16 locations shown in layout 1 as below.

Inside doing road work rehabilitation, cdw jv observes in detail the location of the sensitive receptor so that it can be anticipated properly. The results of CDW JV's observations of the sensitive receptor area are as shown in the table 1 below.

Layou 1 : Road Rehabilitation for 16 location

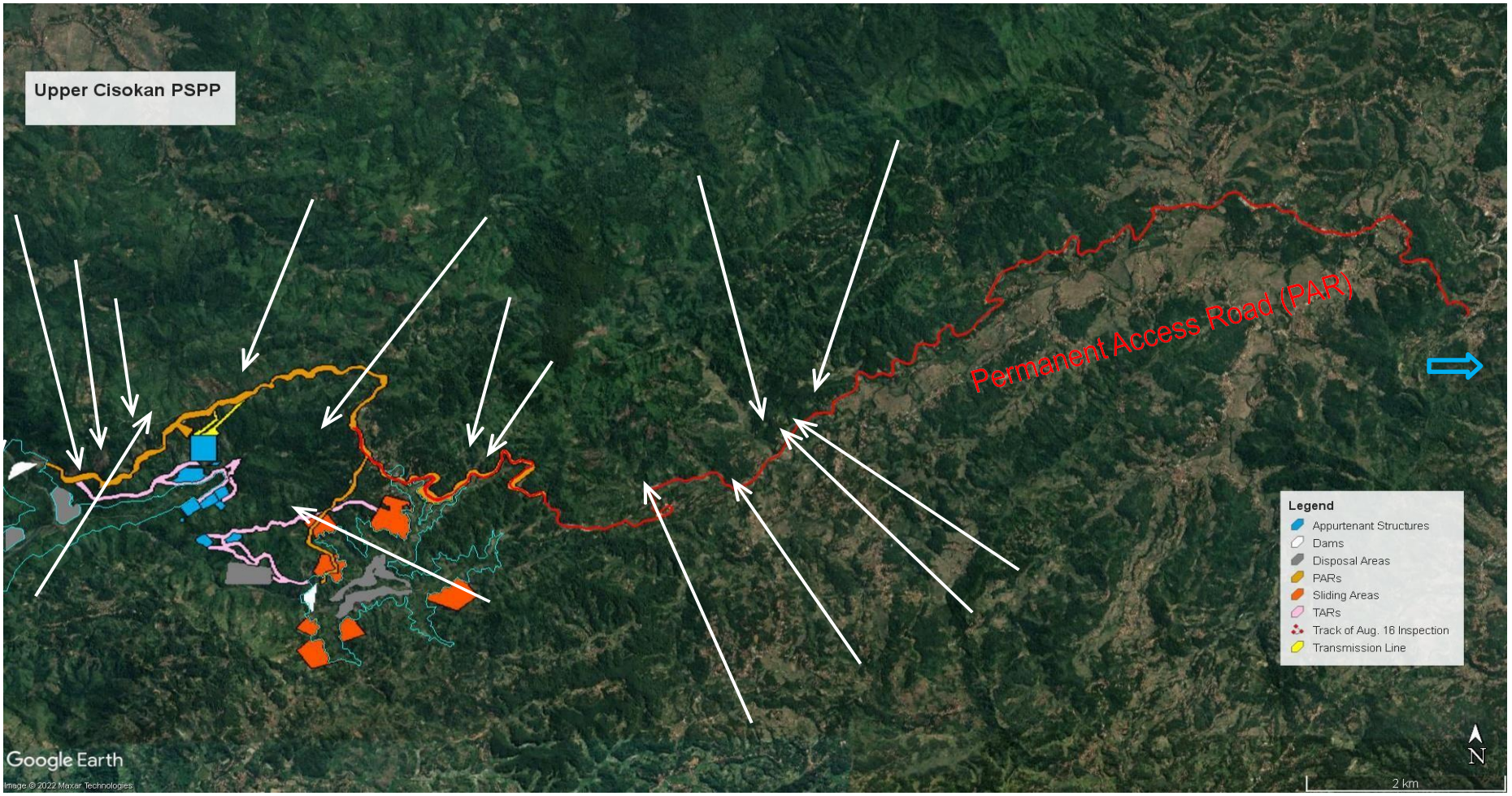
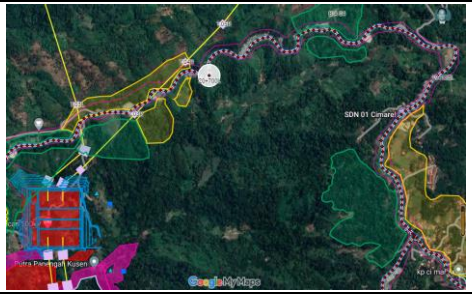
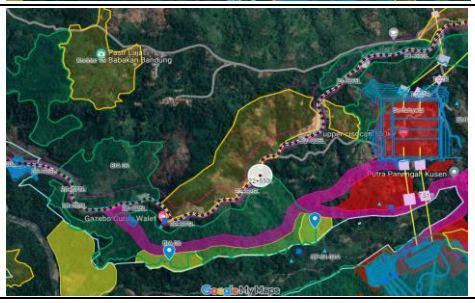


Table 1 : Sensitive Receptor Road Rehabilitation

No.	STA	Map Location	Sensitive Receptors	
1	Sta 10+150		N/A	
2	Sta 10+450		N/A	
3	Sta 10+600		N/A	
4	Sta 10+700		Masque Ajuan Cijambu Sukaresmi	
5	Sta 11+250		N/A	

6	Sta 12+400		N/A	
7	Sta 15+700		N/A	
8	Sta 15+950		Koridor 11	
9	Sta 18+500		BIA 03, Koridor 12	
10	Sta. 20+700		Koridor 13	

11	Sta. 21+500		BIA 05	
12	Sta. 21+700		BIA 05	
13	Sta. 22+300		BIA 06, Koridor 14	
14	Sta. 22+550		BIA 06, Koridor 14	
15	Sta. 23+800		BIA 06, BIA 08	

16	Sta. 18+950		Koridor 12, SDN 01 Cimarel	

CDW JV- JSAE-724-11-21

Job Safety and Environmental Analysis
(Work Method Statement)

Date			**JSEA No.**
Work Order	**Standard Job**		**Standard JSEA**

Job Description **Plant / Equipment**		
Site © ☐ CVC#1 /#2 ☐ RCC#1/#2 ☐ Base Camp ☐ Quarry ☐ TR#..... ☐ Fuel Depot ☐ Workshop ☐ Other _____	**Specific Location/ spesifik Lokasi :**	**JSEA Originator** **JSEA Team**

Expert Adviser/s Required **Apakah memerlukan Advisor**	☐ No	☐ Yes	**Names of the adviser/s:** **Nama Advisor**	*Risk management adviser/s from outside of work team*
Training or Certification Required **Diperlukan Sertificate atau training**				

	☐	☐
Is this a recurring job? **Apakah pekerjaan ini berulang?**	No	Yes

Job Safety and Environmental Analysis
(Work Method Statement)

Resources & Equipment ❒

Check that emergency equipment in vicinity of work area is in a serviceable condition prior to work commencing, including:

- *Emergency communication equipment (e.g. phone, radio)*
- *Operator alert buttons*
- *Safety showers and eye wash stations*
- *Fire extinguishers*

☐ PPE Requirements

☐ Hazardous Materials *(Attach MSDS)*

☐ Emergency Equipment

☐ Special Tools/Equipment

Potential Environmental Hazards ❒

☐ Disturbance / removal of plants or animals
☐ Inefficient energy use / release of greenhouse gas
☐ Noise / Vibrations / light (offsite impacts)
☐ Emissions to air
☐ Contamination - spills to land
☐ Contamination - spills to water
☐ Existence of Cultural / Sundanese
☐ Heritage Waste generation (Regulated
☐ waste) Waste disposal (Waste tracking)
☐ Erosion / sedimentation
☐ Spread of weeds & pests
☐ Potential for fire
☐ Other

Potential Health & Safety Hazards ❒

☐ Access and Exit	☐ Electrical
☐ Work at Height	☐ Heat
☐ Other Workers	☐ Pressure
☐ Rotating Moving Objects	☐ Chemical
☐ Occupational Noise	☐ Radiation
☐ Occupational Gas Releases	☐ Microbiological
☐ Occupational Dust, Fumes	☐ Weather
☐ Manual Handling	☐ Lighting
☐ Fatigue	☐ Asbestos
☐ Driving	☐ Confined Space
☐ Flammables/combustibles	☐ Other

Controls Required ❒

☐ PTW	☐ Land Clearance & Disturbance Permit
☐ Confined Space Authorisation	☐ Weed Hygiene Certificate
☐ Excavation Authorisation	☐ Switchboard Maintenance
☐ Hot Work Authorisation	☐ Regulated waste certificates
☐ Unprotected Edge Authorisation	☐ Bunding
☐ Working at Heights	☐ Weed Seed Wash down
☐ Large angle Grinder approval	☐ Work from a Workbox
☐ Perform Multi Crane Operations	☐ Traffic Management
☐ Tandem lifting with Forklifts	☐ Lone Worker/Remote Work

☐ Other

Job Safety and Environmental Analysis

Step No.	Job Step *List the major steps required to perform the task in the sequence they are carried out.*	Potential Hazards / Environmental Impacts *Against each step list the potential hazards that could cause injury/damage when the task step is performed.*	Hazards or Impact Control *For each hazard list the control measures required to eliminate or minimise the risk of injury or impact on environment. Consider:* • *Elimination or Substitution* • *Engineering* • *Administration* • *Personal Protective Equipment (PPE)*	Risk (With Controls)			Responsible Person
				Likelihood	Impact	Risk Ranking	
	•	•	•				•
	•	•	•				•
	•	•	•				•
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Job Safety and Environmental Analysis
(Work Method Statement)

SIGN-ON SHEET

*** Detail the highest risk ranking identified (with controls) from individual steps in previous section.**

Risk Assessment	Risk Before Controls	Risk With Controls*	**Switchboard Maintenance Risk Controls** For switchboard maintenance the following procedure **CDW JV- JSAE-724-11-21** must be followed and signoff by the appropriate person obtained.
Likelihood	.....	.....	
Impact	.....	.....	
Risk Ranking	.....	.....	**Approval** ***Low / Medium:*** *Supervisor* ***High:*** *Site Manager* ***Extreme:*** ***Construction*** *Manager* Name : Signature Date :

Additional comments or details of special precautions to be taken:

On completion of job, send original copy to Coordinator for review. Coordinator forwards original to the workgroups Administration Assistant for registration and filing.
Note: The person in charge of the job must ensure that all work team members involved in the job are informed of this JSEA & a copy is at the jobsite.

Work Team Sign-On

The person in charge of the job has explained the requirements of this JSEA to me. I understand the hazards and the control measures I must use to complete the job described in this JSEA. I agree to comply with the safety requirements.

Name	Signature	Date & Time	Name	Signature	Date & Time

Job Safety and Environmental Analysis
(Work Method Statement)

Impact	Description				
	Health & Safety	Environment	Financial	Reputation	Compliance
Level 5 Severe	Fatality or Serious Injure with permanent impairment e.g As defined by the Work Health Safety Act (Qid) 2011	An event causing irreversible Serious environmental harm	> Rp. 200 M total impact of event	Widespread negative national or metropolitant media coverage relating to CDW JV business activities, repeated public protest (actual or virtual) which have a long term impact on shareholder confidence	A breach of a compliance obligation resulting in the cancellation of a permit licence or other form of authorisation essential to the effective coperation of at least one of the corporation's sites and/or functions
Level 4 Major	Serious injure without permanent impairment e.g as defined by the work health safety act	An event causing serious environmental harm or widespread unauthorised disturbance	>50 M-200 M total impact of event	Multiple negative stories in national or metropolitant media relating to CDW JV business activities	A breach of a compliance obligation resulting in the suspension of a permit licence or other form of authorisation essential to the effective coperation sites and/or functions
Level 3 Moderate	Recordable injury eg. LTI or MTC	An event causing material environmental harm	>5 M-50 M total impact of event	Negative regional media coverage relating to CDW JV business activity Reputation impact is contained at local level	A breach of a compliance obligation resulting in an enforcement order and/or cancellation of a permit licence or other form of authorisation that is not essential to the coperation sites and/or functions
Level 2 Minor	First Aid treatment (minor injury/Ilness) e.g removal of foreign bodies from wound or minor sprains and strains	An event causing localised material environmental impact	>1 M- 5 M total impact of event	Concern expressed by local opinion leaders Little or no adverse media coverage in relation to CDW JV business activity	A breach of a compliance obligation resulting in an enforcement order and/or cancellation of a permit licence or other form of authorisation that is not essential to the coperation sites and/or functions
Level Low	Insignificant/report only injuries/illness e.g discomfort in shoulder or small "Surface" splinters	Contained event (spill, emission, or disturbance) with negligible disturbance	< 1 M total impact of the event	Isolated complain form individual that can be dealt with on a site by site basis	A breach of an internal compliance obligation that does not require external notification. Question from the regulating to a non conomance with licence or conditions; technical and/or administrative non compliance which does not impact the ability to operate

Likelihood	Description
Almost certain (A)	The impact is expected to occur within the next 6 months
Likely (B)	The impact is expected to occur within the next 12 months
Possible (C)	The impact is expected to occur within the next 1-5 years
Unlikely (D)	The impact is expected to occur within the next 5-25 years
Rare (E)	The impact is expected to occur less frequently than once every 25 years

Impact					
Likelihood	(1) Low	(2) Minor	(3) Moderate	(4) Major	(5)Severe
almost certain (A)	Tolerable	Medium	High	Extreme	Extreme
Likely (B)	Tolerable	Medium	High	Extreme	Extreme
Possible (C)	Tolerable	Tolerable	Medium	High	Extreme
Unlikely (D)	Tolerable	Tolerable	Medium	High	High
Rare (E)	Tolerable	Tolerable	Tolerable	Medium	Medium

PERMIT TO WORK (PTW)
Surat Ijin Kerja

JOINT VENTURE

Fasilitas (Facility):		No. Ijin (Permit Number)

☐ Kerja Panas (Hot work) ☐ Kerja dingin (Cold Work) ☐ Galian (Excavation) ☐ Ruang terbatas (Confined Space) ☐ Radio Aktive (Radio Active) ☐ Penyelaman (Diving) ☐ Bekerja di ketinggian (Working at Height)

1. Diskripsi/Lokasi Pekerjaan (DescriptionLocation of job) :	8. Masa berlaku Ijin (Validity of Permit)	
	Dari (From) Pukul (hour) :	ke (to) pukul (hour) :
	Tanggal (Date): -	
Jumlah Pekerja (Number of worker/'s)	.....	
Peminta Ijin (Job Applicant)		Pemberi Ijin (Authorized Person)
Pemegang Ijin (Permit Holder)		

2. Isolasi (Isolation)	☐ Elktrik (Electrical) ☐ Hidrolik (Hydroulic)	☐ Mekanik (Mechanical) ☐ Pneumatik (Pneumatic)	Tandai jika dilakukan dan jelaskan dibawah Di isolasi Oleh (Isolated by)
Waktu dan tanggal Isolasi (Time and Date Isolated)		Pengawas Utilisasi & Mechanical	

3 Bahaya (Hazard)			
☐ Tekanan Gas Cairan (Liquid Gas Pressure)	☐ Cuaca (Weather)	☐ Peralatan bergerak (Moving Machinery)	☐ Keracunanan (Toxins)
☐ Ledakan (Explotion)	☐ Kebisingan (Noise)	☐ Bahaya Jatuh (Danger of falling)	☐ Pengangkatan (lifting)
☐ Kebakaran (Fire)	☐ Korosife (Corrosives)	☐ Kekurangan Oxygen (Oxygen Difeciency)	☐ Perancah (Scaffolding)
☐ Listik (electrical)	☐ Radiasi (Radiation)	☐ Bahaya Jepit (Pinch Points)	☐ Pekerjaan Pihak ketiga (Jelaskan dibawah)
			(Third Party Operation (Explain bellow))
Bahaya Lain (Others Pre Hazards) :	.....		

Persyaratan (precaution) :

☐ Job Safety & Environment Analysis (JSEA)	☐ Pasokkan udara (Airfine/Cascade)	☐ Innert Purging ☐ Pengawas (Supervisio	☐ Alat Bantu Pernapasan (SCBA)
☐ Rencana ESHS (ESHS Plan)	☐ Ventilasi (Ventilation)	☐ Standbyman ☐ Pembatas (Barriers)	☐ Pengukuran Gas (Gas Monitoring)
☐ Pemadam Api (Fire Extinguisher)	☐ APD (PPE)	☐ Safety Hardness ☐ Gounding	☐ Pembilasan dengan air (Water Flushing)
☐ Kelengkapan & Persiapan kelengkapan alat kerja (Tools Preparation)			
Persyaratan lainnya (Others Precaution) :			

4. Tes (gas Testing) ☐ Oxygen ☐ H2S ☐ Flammable (Gas Methane - CH4) ☐ Pengawas (Supervising)

Jenis	Baku Mutu	Pengukuran awal	Tanda Tangan	Pengukuran saat kerja berlangsung	Tanda Tangan
Oksigen (Oxygen)	Min 19.5%				
H2S	Max.10 ppm				
Flammable (Gas Methane - CH4)	LEL 5%				
CO	20 Ppm				

Tanda Tangan dilakukan oleh Petugas penguji gas (Signed by Gas Tester)

5. Peminta Ijin (Permit applicant) Detail ijin telah didiskusikan dengan pemegang ijin dan pihak terkait The detail of the permit have been discused with the permit holder and those Involved Peminta Ijin (Permit Applicant)	6. Pimpinanan Peminta Ijin - Jika diperlukan (Authorization of Permit Applicant - If required) (Nama dan tanda tangan (Name and Signature)
7. Penerbitan dan Persetujuan (Issue and Acceptance) Saya telah memeriksa Lokasi Kerja dan telah memenuhi persyaratan yang diperlukan dan telah didiskusikan dengan seluruh pihak terkait (I have checked the worksite and the require precautions have been taken and discussed with all involved Pemegang Ijin/ Permit Holder	10. Pengalihan Pekerjaan (Job Hand Over) Pemegang Ijin Berubah sejak pukul ..... tanggal ..... Permit holder changed at ..... hrs ..... Date ..... Pemegang ijin baru dan pekerjaan telah diarahkan dengan baik dan menyeluruh mengenai bahaya dan pencegahannya (The incoming permit holder and his workmen have been satifactory briefed on all the hazards and precautions) Pemegang PTW lama (Outgoing permit holder)

9. Pelepasan Isolasi (De-isolation)	Listrik (Electrical) Hydrolik (hydroulic	Mekanik (Mevhanical) Pneumatik/Pneumatic	11. Penghentian Ijin sementara (Suspension of Permit)	
Isolasi yang terdapat pada ijin telah diambil (The isolation applicable to the permit have taken been removed)			Saya menyatakan bahwa pekerjaan dalam ijin yang telah terbit ini untuk sementara ditunda, semua yang terlibat telah ditarik dan area kerja/peralatan telah ditinggalkan dalam keadaan aman Alasan penundaan (Reason of suspension) :.....	
Isolator (Isolator)				
Tanggal (Date)				
Pukul (hour)				
Pengawas Utiliti dan Mekanik				
12. Pekerjaan telah selesai (work completion)			13. Penutupan ijin (Permit Closure)	

Appendix 10

CGGC – DL - WIKA JOINT VENTURE (CDW JV)

JOINT VENTURE

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

Hierarchy of Work

Upper Cisokan Pumped Storage Project

Site Specific Contractor Environmental and Social Management Plan and Monitoring

Version 1.0 for Initial Construction

CLIENT:

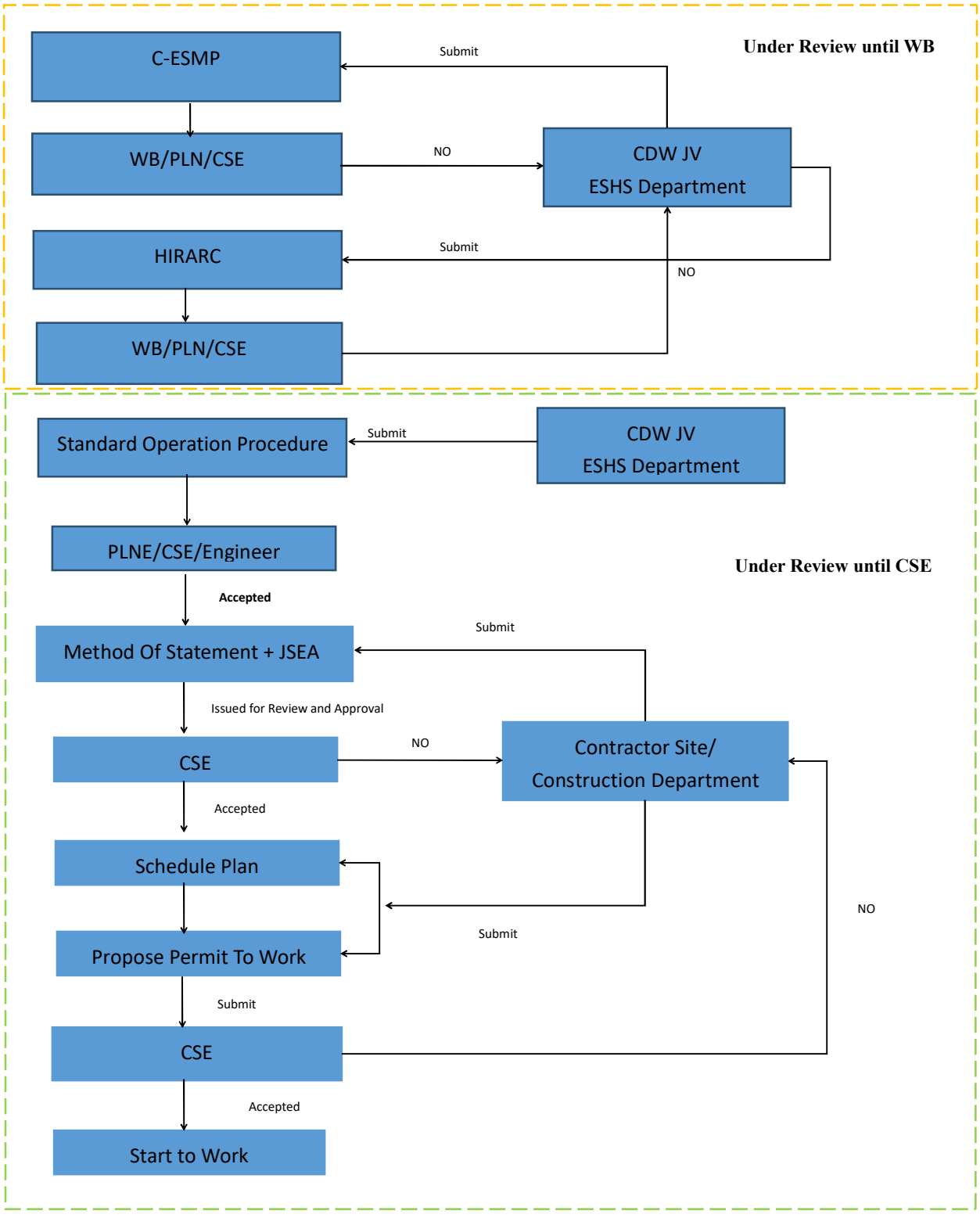
PT. PERUSAHAAN LISTRIK NEGARA (PERSERO)
UNIT INDUK PEMBANGUNANJAWA BAGIAN TENGAH
Jl. Karawitan No. 32 Bandung 40264
Telp: (022) 7320595, Fax. (022) 7320596, E-mail: sekretariatuipjbt@gmail.com

JOINT VENTURE

Revision sheet

REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL

Hierarchy Working system from UCPSP Project implementation :



Appendix 11

CGGC – DL - WIKA JOINT VENTURE (CDW JV)

JOINT VENTURE

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

CHANCE FINDS PROCEDURE

Upper Cisokan Pumped Storage Project

Site Specific Contractor Environmental and Social Management Plan and Monitoring

Version 1.0 for Initial Construction

CLIENT:

PT. PERUSAHAAN LISTRIK NEGARA (PERSERO)
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JOINT VENTURE

Revision sheet

REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL
		1.1	

CHANCE FINDS PROCEDURE

If any person discovers a physical cultural resource, such as (but not limited to) archeological sites, historical sites, remains and objects, or a cemetery and/or individual graves during excavation or construction, the site manager from the CDW JV will implement the following steps:

1. Stop the construction activities in the area of the chance find, and secure any equipment and/or objects that pose additional threat to the chance find area or object;
2. Immediately notify the EPO, site manager or HSE Manager and HSE team;
3. Attempt to delineate the discovered site or area, using flagging to prevent further access or damage to the site, and flag additional areas or objects identified;
4. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a day/night guard shall be arranged until the responsible local authorities take over;
5. Site Manager or HSE Manager shall immediately notify the Supervising Engineer, who in turn will notify PLN Environment Unit and the responsible local authorities immediately (within 24 hours or less);
6. Responsible local authorities are in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by archeologists. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
7. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
8. Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and
9. Construction works can resume only after permission is granted from PLN, the Engineer, communities (through CLO) and/or the responsible local authorities.

CGGC – DL - WIKA JOINT VENTURE (CDW JV)

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

COVID-19

Version 4.0 for Initial Construction

CLIENT:

PT. PERUSAHAAN LISTRIK NEGARA (PERSERO)
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	Revision sheet		
REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL
0		Submission to PLN of the ESMP and SSHP	

Appendix 12 - Emergency Response Plan for Covid 19

Preparedness

1 Identify quarantine room on the site compound (not medical room) for the sole use of suspected covid cases. The room shall have a bed, a supply of water (bottled sufficient) For multiple cases further rooms will need to become quarantine rooms[See Note 1]. No-one except approved medical staff may enter the quarantine room and they must be gowned as set out in Table 1.

2 In a Covid outbreak one WC will be identified for the dedicated use of Covid patients. It shall be well ventilated and regularly disinfected. Cleaners shall wear Covid protection uniforms as set out in Table 1.

3 The Canteen will provide meals for those in quarantine. However there shall be no contact between canteen staff and those in quarantine. Transfer will be by gowned medical staff. Used cups, trays and utensils shall be considered contaminated, bagged and either securely disposed or thoroughly cleaned before reuse.

4 In an outbreak the Site Manager shall identify a dedicated vehicle to be prepared for the transfer of Covid victims to Karisma Hospital. Drivers shall be gowned and masked, and the vehicle must be deep cleaned after use

Role and Responsibility

3.6.1 Project Manager:

- Receive information from the ESHS Manager regarding Covid outbreak.
- Forwarding the information on Covid containment / spread to PLNE.
- Monitor containment / transfer to Karisma Hospital medical facility and forward updated information to PLNE.

3.6.2 ESHS Manager

- Receive Covid information from the public, security, workers, and others.
- Forward information on Covid 19 incident to the Project Manager, provide information on actions to be taken, and update the situation as soon as possible if changes occur.
- Inform the Emergency Incident Control Team that there has been a Covid 19 incident. Provide information to the Emergency Incident Control Team on what actions need to be taken.

3.6.3 Emergency Incident Control Team

- Communicate with the Project Manager for approval of the financial and logistic requirements.
- For Covid-19 cases, forewarn the hospital that has received a recommendation from the Indonesian government to handle Covid 19.
- Provide ambulances and paramedics to take patients from the Site Project to safe room on camp.
- Provide a room for patient treatment.
- Advise the hospital if transfer to the medical facility is required

3.6.4 Site Manager:

- To ensure that the suspected Covid-19 enters and is in a safe room until the ambulance from the hospital arrives and picks up the suspect Covid-19 (refer to ESHS Manager instructions)

Note 1: Safe room role:

1 No Body can enter a quarantine room without permission from the Paramedic.
2 Any person entering the quarantine room is required use PPE for Covid-19 as set out in the following table

Figure 1-1: Covid 19 response flow chart

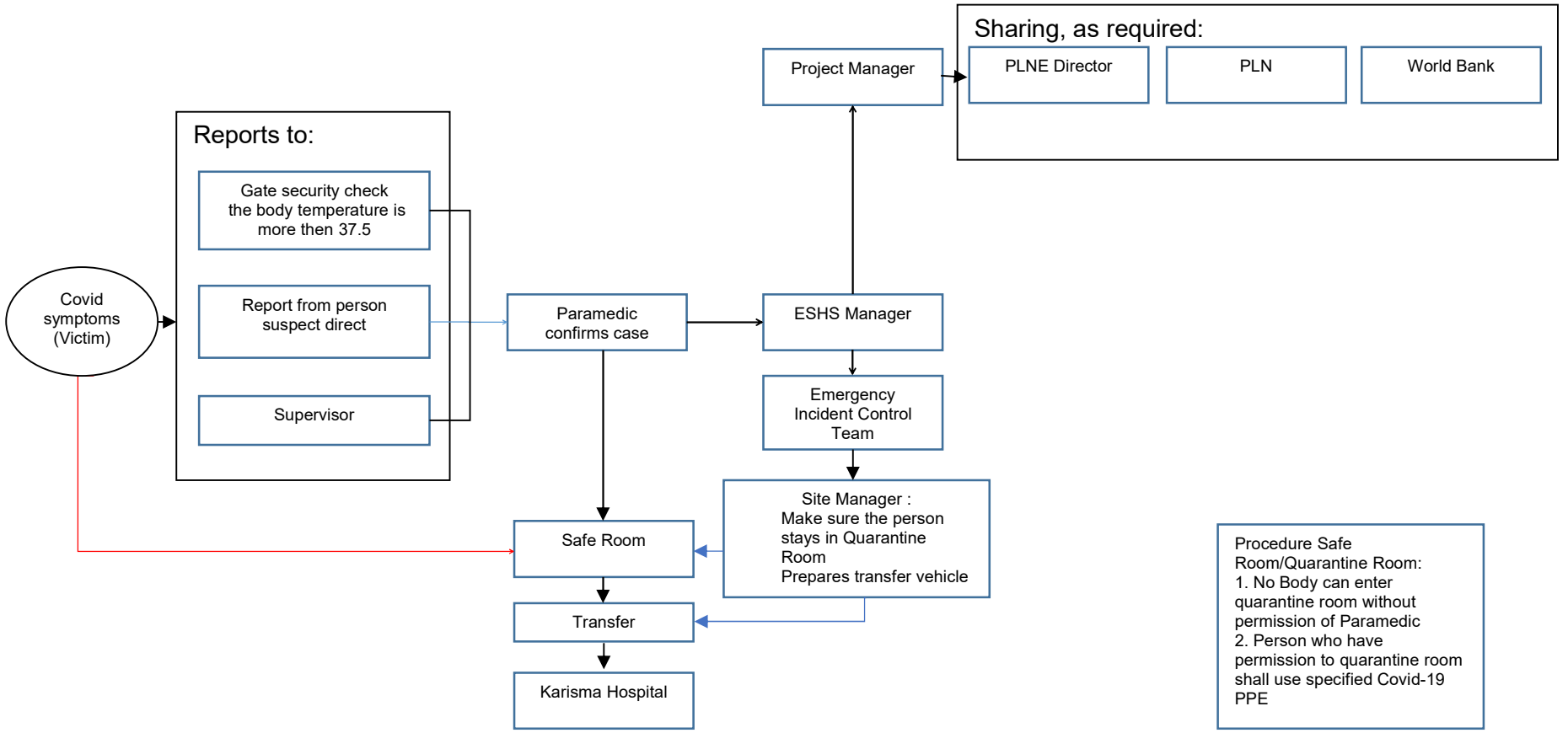

Table 1-1: PPE for interaction with potential covid cases

Gown	• Single-use, long sleeve, ties in back, length to middle of lower leg • Reusable gowns should meet performance standards before and after laundering, up to the maximum suggested number of laundry cycles • Some areas including the operating room and labor and delivery may require higher levels of fluid resistance.	• EU PPE Regulation 2016/425 and EU MDD Directive 93/42/EEC • FDA Class I or II medical device, or equivalent • EN 13795 any performance level, or • AAMI PB70 all levels acceptable, or equivalent
Particulate Respirator *(Type N95 or greater)*	Mask that covers the nose and mouth and filters particles (minimum 94-95%) without collapsing against the mouth. Some are tested for fluid resistance	• Minimum "N95" respirator according to FDA Class II, under 21 CFR 878.4040, and CDC NIOSH • Minimum "FFP2 according to EN 149, EU PPE • Regulation 2016/425 Category III, or equivalent
Medical/Surgical Mask	Mask that covers the nose and mouth and filters minimum 98% of droplets	• EU MDD Directive 93/42/EEC Category III or equivalent • EN 14683 Type II, IR, IIIR • ASTM F2100 minimum level 1 or equivalent
Eye Protection (Face Shield or Goggles)	**Face Shield**: Made of clear plastic and completely covering the sides and length of the face. Fits snugly against the forehead with an adjustable band to tighten around the head. May be re-usable (when disinfected) or disposable **Goggles:** Made of clear plastic and encloses eyes and surrounding areas; should have good seal with the skin of the face. Flexible PVC frame fits all face contours. Some have adjustable bands to secure goggles to the face. Indirect venting avoids fogging. May be re-usable (when disinfected) or disposable	**Face Shield:** • EU PPE Regulation 2016/425 • EN 166 • ANSI/ISEA Z87.1 **Goggles:** • EU PPE Regulation 2016/425 • EN 166 • ANSI/ISEA Z87.1 or equivalent
Gloves, Non-sterile/ Examination	Nitrile, powder and latex-free free single-use gloves. Ideally should have longer cuffs, reaching above the wrist so there is no gap between a gown and glove. Sizes: small, medium, large	• EU MDD Directive 93/42/EEC Category III • EU PPE Regulation 2016/425 Category III • EN 455 • EN 374 • ANSI/ISEA 105, • ASTM D6319 or equivalent

CGGC – DL - WIKA JOINT VENTURE (CDW JV)

CONTRACTOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

For:

UPPER CISOKAN PUMPED STORAGE POWER PLANT PROJECT (4 X 260 MW)

ROAD REHABILITATION WORKS

Appendix 13

EMERGENCY PREPAREDNESS & RESPONSE PLAN (EPRP)

for PAR Rehabilitation works

CLIENT:

PT. PERUSAHAAN LISTRIK NEGARA (PERSERO)
UNIT INDUK PEMBANGUNAN JAWA BAGIAN TENGAH
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Revision sheet

REVISION	DATE	DESCRIPTION OF CHANGE	APPROVAL
New V1.0	30 Jan 2023	Based on EPRP 230119 V4.0.	
V2.0	6 Feb 2023	Responding to WB comments	
V3.0	23 Feb 2023	Responding to PLNE comments	
V4.0	28 Feb 2023	Following JV, PLN, WB workshop on 23 Feb 2023	
V4.4	2 Mar 2023	World Bank Review	

Contents

Abbreviations

BNPB	Badan Nasional Penanggulangan Bencana [National Agency for Disaster Countermeasure]
BASARNAS	Badan Search and Rescue Nasional [National Agency for Search and Rescue)
CDW JV	China Gezhouba Group Co., Ltd – Daelim – Wika – Joint
C-ESMP	Contractor Environmental and Social Management Plan
CLO	Community Liaison Officer
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
EICT	Emergency Incident Control Team
ESMP	Environmental and Social Management Plan
EPRP	Emergency Preparedness & Response Plan
PAR	Permanent Access Road
PT PLN (Persero)	PT Perusahaan Listrik Negara (Persero) (Indonesia Electricity State Corporation)
UCPSPPP	Upper Cisokan Pumped Storage Power Plant Project

1 Overview of Emergency Preparedness & Response

1.1 What is involved?

1 The Project is the Upper Cisokan Pumped Storage Power Plant Project (UCPSPPP). In implementing the project CGGC- DL E&I - Wika[1] Joint Venture ("CDW JV") is the Project contractor and PT. Perusahaan Listrik Negara (PLN) [the electric power company of Indonesia] is the Project client.

2 This document is an Appendix 13[2] to the Contractor Environmental and Social Management Plan (C-ESMP) prepared for the rehabilitation of the Permanent Access Road (PAR) of the Project. It is an Emergency Preparedness & Response Plan (EPRP) setting out the way the Project Contractor, CDW JV will identify, manage and respond to emergencies that could occur on site.

3 On any active construction site, the works even when carried out to correct working practices, can result in unforeseen incidents e.g. fire, spills, that can be identified, planned for and managed through processes described and set out in the C-ESMP, including the incident management procedures. However, there are other incidents that fall outside the scope of the C_ESMP that are unplanned and can have catastrophic consequences e.g. death, loss of property. While their presence is not unexpected and can be planned for, they cannot be predicted. This document is for such events we are calling emergency situations. Given the relatively small scope of work, workforce and access to specialist equipment the ability of the site to deal with large emergency situations responses is limited and in cases of multiple death and injury the CDW-JV may have to call on the local emergency services or even the National Agency for Disaster Countermeasure [Badan Nasional Penanggulangan Bencana] (BNPB)[3], through PLN.

4 However, the CDW-JV must be aware and ready to act in an emergency situation and this document sets out the processes and procedures developed for an emergency response. For the purposes of this ERP an emergency is defined as an event on site where:

"there has been a death, ongoing threat of further deaths or there are serious injuries requiring urgent hospitalization[4] or the threat of such as a result of an unanticipated event (natural and human induced)"

1.2 Scope of the Road Rehabilitation works

5 The Project is in the hills of West Java, Indonesia, in the upper catchment of the Cisokan River (see Figure 1- 1). This document focuses on the Permanent Access Road (PAR) The PAR (see Figure 1- 2) is approximately 27 km long and runs from the future main construction area then runs broadly east downhill to the Cipari Junction, where the PAR joins the regional road network.

6 The PAR does not provide any connectivity to other communities or districts, its sole

[1] China Gezhouba Group Co., Ltd – Daelim - Wika

[2]. An Appendix is an extension to a document

[3] [Badan Nasional Penanggulangan Bencana https://www.bnpb.go.id/

[4] This definition includes incidents of Civil disobedience where events have potential to quickly escalate from peaceful protest into a situation where death or serious injury could occur e.g. PT Gunbaster Nikel Indonesia There were two fatalities at the smelter when protests over working conditions escalated and two workers died (one foreign national and one local worker) (www.Aljazeera.com 17 Jan 2023).

purpose is to access the future main construction site[5]. The PAR was constructed between 2012 and 2015 and rehabilitated in 2019-2021following storm damage. It suffered further storm damage in 2022 at 16 locations and urgent repair work is required to prevent further degradation and allow future uninterrupted access between the main project site (during construction and operation phases) and the wider regional road network. The PAR is a controlled access road; PLN maintains a security gate with associated guard post at the Cipari junction.

1.3 Geographical and Societal Context

7 In its geographical context the Project site is:

- Remote – if the access road is affected (cut) how will food / fresh water be brought to site. How would any injured workers get to medical facilities;
- Climate - tropical and influenced by monsoon weather patterns (there is a wet and dry season);
- Topographically (steep – rapid run off during wet / monsoon season);
- During the dry season could lead to increased fire risk; and
- Seismic – on 'ring of fire' and subject to potential earthquakes.

8 In its Societal context the Project site is:

- Remote – no access to medical facilities / security support (i.e., police);
- Workers are on a remote site – potential issues of boredom and lawlessness; and
- Project / Workers considered 'affluent' in comparison to the local population who may resent presence - protest.

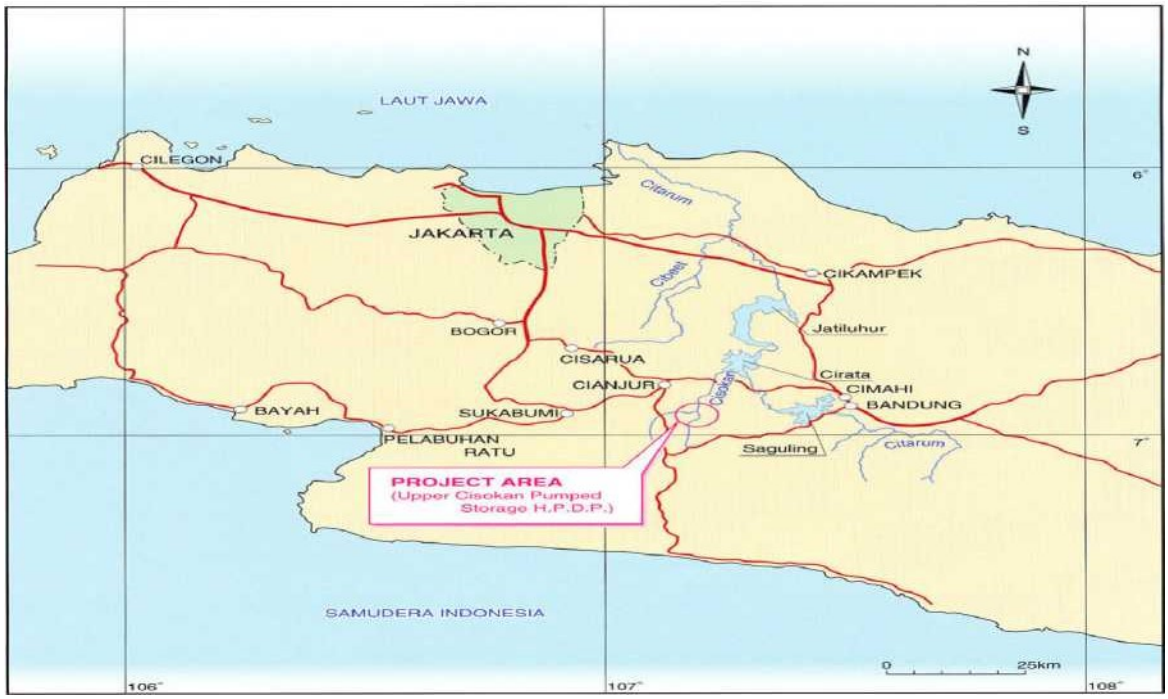

Figure 1- 1: The Project in the context of West Java

[5] Although there are communities that live on or near the access road that are able to use the road.

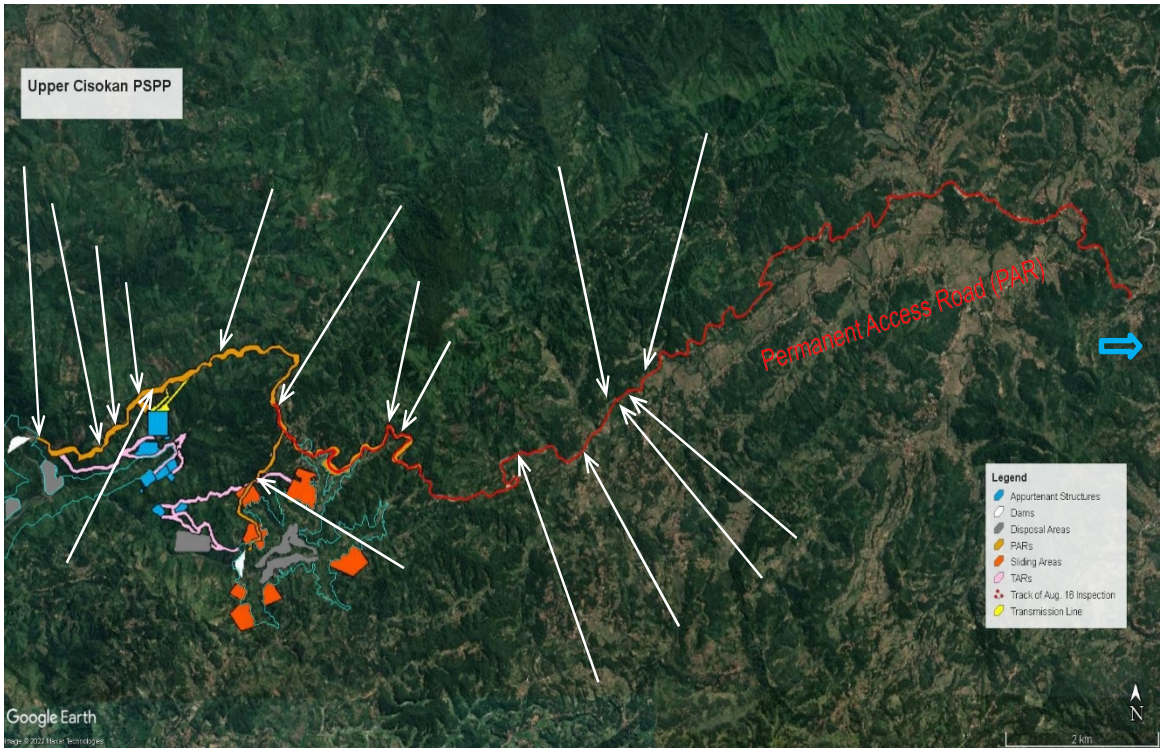

Figure 1- 2: Permanent Access Road (PAR) - Construction zone to Regional Road network

Note. The white arrows indicate points where emergency rehabilitation work is required.

9 Road rehabilitation will include civil engineering activities of:

- Slop stabilization,
- Reforming the base course and running surface of the road;
- Reconstructing damaged culverts and other drainage features.

10 A construction camp will be established on the road alignment to accommodate staff associated with the works (including canteen and ablutions), office support, parking and maintenance areas for construction plant and material storage areas. The camp will not include materials processing. Any aggregate and bitumen products (e.g. asphalt) will be supplied from established processing facilities in the immediate area.

11 Staff directly associated with the construction works (Design and construction engineers, plant operators, labourer and environmental and safeguards support staff will number 87 (12 foreign nationals living on the camp and 75 national day workers recruited locally and living off-camp) (see Table 1- 1 for breakdown and as an organization chart in Figure 1- 3. There will be a yet undetermined number of locally recruited camp support workers (canteen staff, cleaners, office administrators).

Table 1- 1: Manpower Schedule for staff working on Road Rehabilitation

Position	Number of Workers				
	Skilled	Unskilled	Total	Local	Foreign
CDW JV					
Project Manager	1	0	1	0	1
Executive General Manager	1	0	1	0	1
Admin Manager	1	0	1	0	1
Community Liaison Officer	2	0	2	1	1
Admin management+ Support	3	0	3	1	2
Camp control	1	0	1	0	1
Security officer	3	0	3	2	1
Financial Manager	1	0	1	0	1
Financial Management Team	8	0	8	0	8
Material Manager	1	0	1	0	1
Equipment control	1	0	1	0	1
Procurement	1	0	1	0	1
Warehouse officer	1	0	1	0	1
Site Manager	1	0	1	0	1
Geologist	1	0	1	0	1
Technical Support	7	0	7	0	7
Site supervisor	1	0	1	0	1
PAR Control	1	0	1	1	0
QA&QC Manager	1	0	1	0	1
QA Team	4	0	4	1	3
ESHS Manager	1	0	1	0	1
Safety Supervisor/Administration	1	0	1	0	1
Safety Officer	1	0	1	1	0
Environment Officer	1	0	1	1	0
Community Liaison Officer	1	0	1	1	0
First Aider	1	0	1	0	1
PAR rehabilitation site construction team					
Project Manager	1	0	1	1	0
Safety Officer	1	0	1	1	0
Assistant Safety Officer	1	0	1	1	0
Flagger	0	1	1	1	0
Site Engineer	3	0	3	3	0
Ass. Engineer	1	0	1	1	0
Reconstruction Admin /Engineering Support	12	0	12	12	0
Plant Operators and Supervisors	20	10	30	30	0
Total staff number	86	11	97	59	38

Notes.
1) Foreign workers assumed to live in the camp. Local staff assumed to be day workers living at home outside working hours.
2) There will be a yet undetermined number of locally recruited camp support workers (canteen staff, cleaners, office admin, etc.)

12 During any working day administration staff will be based in the offices at the camp and construction staff will be based on the PAR at working sites. Table 1- 2 presents the likely daily deployment of staff in the camp or out on the PAR. There will be up to 53 persons based at the camp and 44 working on the PAR. On the PAR there will be different work teams carrying out specific rehabilitation activity and therefore there could teams working at five locations or more.

Table 1- 2: Daily Deployment in camp or on site

	Workforce	Number	Work Location
1	CDW JV	38	Camp
2	CDW JV	9	Out of Camp/PAR
3	Site Construction team	15	Camp
4	Site Construction team	35	Out of Camp/PAR

1.3.1 Communications on site

13 During any working day the workforce will be in one of two locations:

- Within the Camp (site compound);
- In a work-team en-route or at a working location.

14 Within the construction camp: The camp is equipped with internet access. All foreign workers are accommodated in the base camp and workers have access to mobile phones complete with Internet access.

15 In a working team on-site. The leader of each working team is allocated a walkie talkie with a direct link to the Camp control room. Each work-team is allocated a unique frequency on the UCPSPPP communication network.

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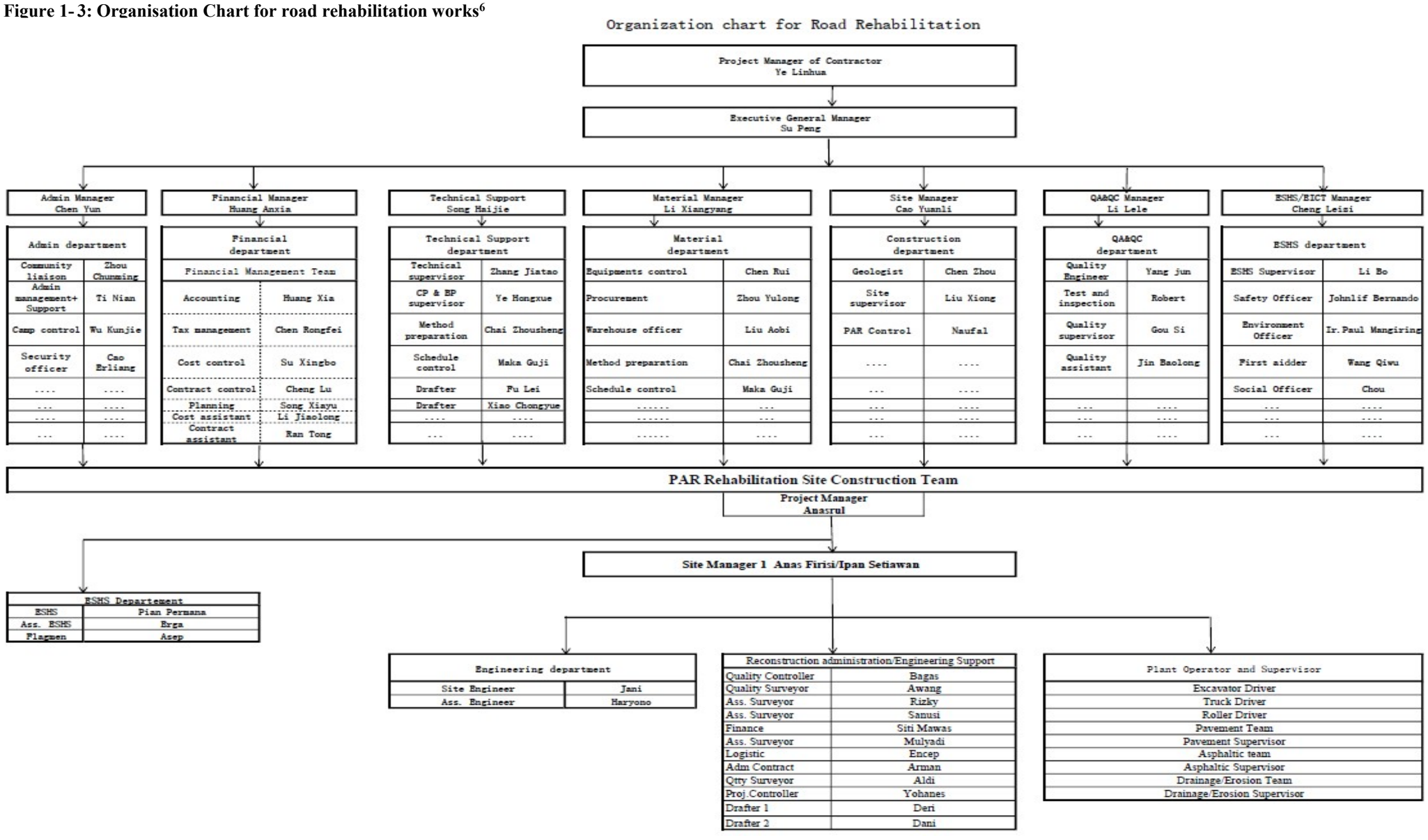
Figure 1-3: Organisation Chart for road rehabilitation works[6]

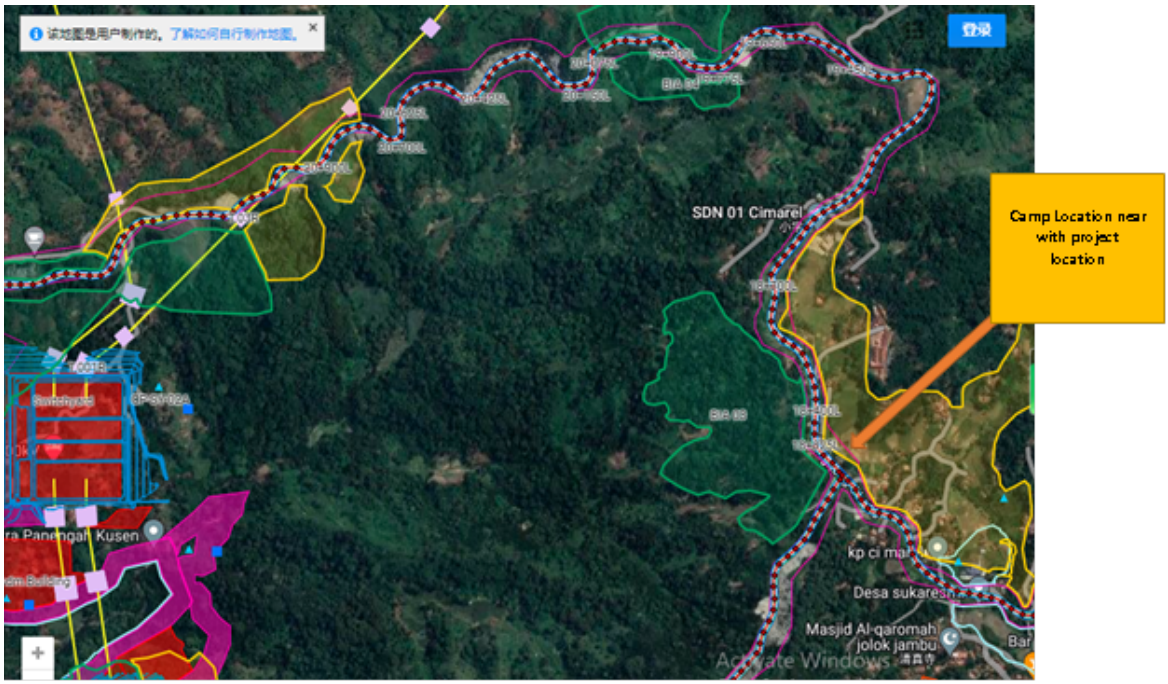


[6] 'Social Officer' is the Community Liaison Officer

1.4 Details of the Construction Camp

16 A small dedication construction camp will be used for road rehabilitation works. It is a separate site from the one identified for the main construction works (that has not been developed at this point in the project). It is located towards the eastern end of the PAR

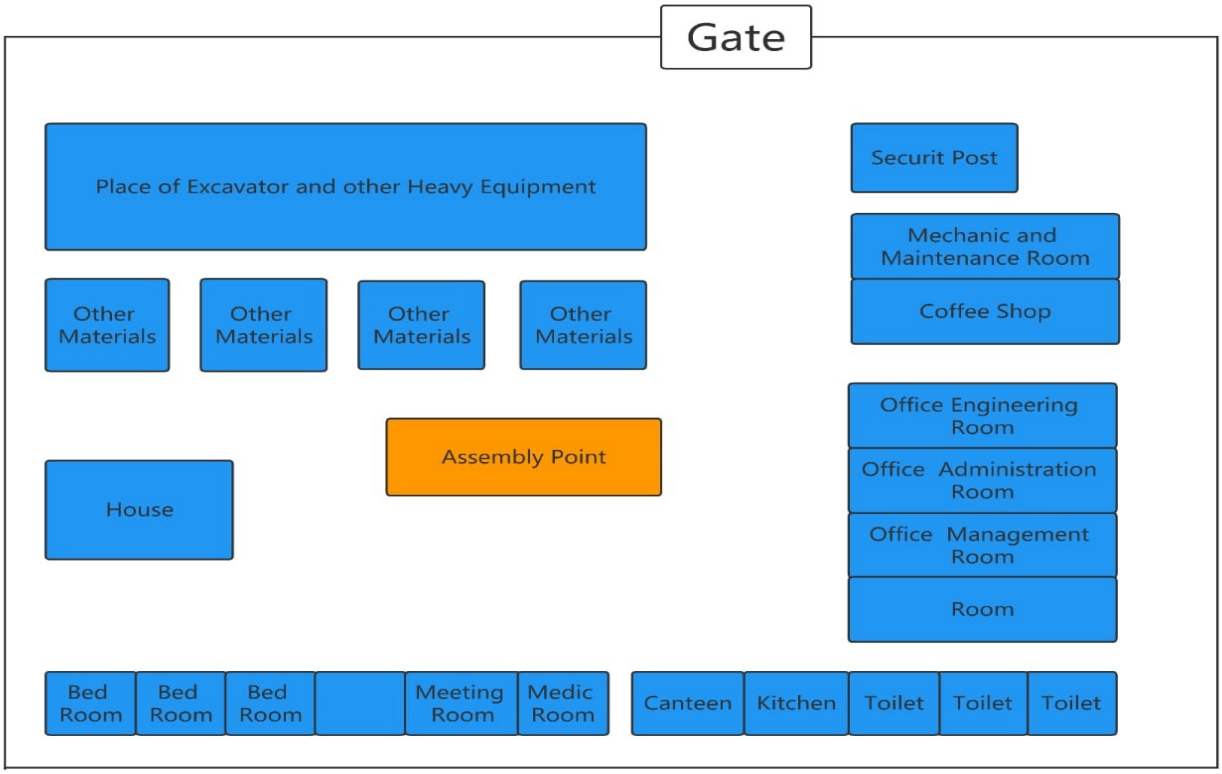
Figure 1- 4: Location of Road Rehabilitation Works Construction Camp



17 The camp will include: (i) an administration block (including rooms for engineers, office administration, Managers room), and a storeroom; (ii) foreign worker accommodation block (including workers rooms, recreation room and meeting room): (iii) canteen (including cooking and dining areas, and ablution block); (iv) construction vehicle parking and maintenance area; (v) medic room and (vi) limited materials storage. Construction materials will be supplied on an as needed basis from local suppliers. There will be no processing at the camp (crushing & grading sand and gravel), concrete batching or asphalt plant).

18 An indicative layout is identified in Figure 1- 5. The camp will be secured with a continuous mesh fence with a single barrier/gate-controlled entrance. The security post at the gate will be occupied with a 24-hour security presence. There will be no 'casual' access to the camp.

Figure 1- 5: Indicative Camp Layout



2 Emergency Resources

2.1 Regional Emergency Response Resources

19 The Project site is in a remote location[7] and therefore there could be delay in accessing emergency services that are generally located in the main population centres (i.e., comprehensive medical support facilities, fire and police response services).

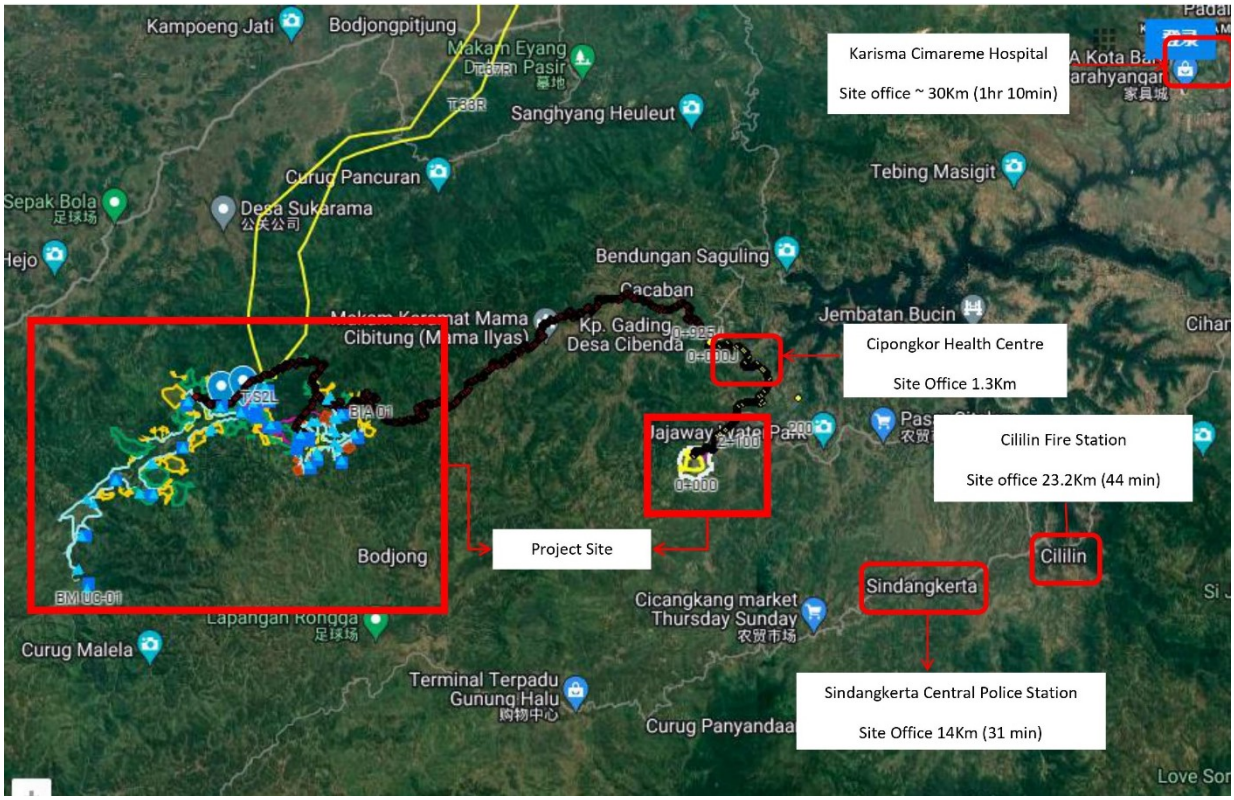
20 Local facilities have been reviewed and the location of the closest medical, fire emergency and police facilities are indicated on Figure 2- 1 with contact details presented in Table 2- 1. The closest health centre is located on the PAR in Cipongkor, close to the Road Rehabilitation camp – this facility only provides basic medical support. The staff have medical training and access to medical supplies, but the facilities are effectively the same as those available at the camp medical facility.

21 The **closest hospital** with comprehensive medical support (operating theatres, etc.) is in Padalarang, approximately 30Km distant (or 70 minutes by vehicle). The closest fire services are in Cililin 23Km / 44 minutes by road and closest police presence is in Sindangkerta, 14Km / 31minutes by road.

22 **While supporting emergency infrastructure is available, road conditions and distances mean that external support is not immediately available, and the Project must be primarily reliant on providing the necessary immediate response in an emerging emergency**.

[7] Remote - situated far from the main centres of population.

Figure 2- 1: Location plan for emergency services in the immediate area



Source: Google Earth supplemented with project derived information

23 The following table gives contact details for supporting emergency services in the area.

Table 2- 1: Location, distance and contact details of emergency services

Emergency Service	Name and location	Distance from Camp	Time from camp (vehicle)
Local Health Centre	Cipongkor Public Health Center Tel. (022) 68197396.	1.3Km	3 min
Regional Hospital	Karisma Cimareme Hospital, Padalarang. Tel (022) 6866221	30Km	70min
Regional Fire Service	Cililin Firefighter, Tel. (022) 6940113	23Km	44min
Regional Police	Sindangkerta Police Station. Tel (022) 6940223	14Km	31min
BNPB	Kecamatan Soreang Bandung Barat Tel(022) 85872591	24 Km	82min
BASARNAS	Jayagiri, Kec. Lembang, bandung Barat Telp.082115667720	52 Km	120min

2.2 Camp Emergency Response Resources

2.2.1 Manpower / Roles and Responsibilities

2.2.1.1 Emergency Response Team

24 The Project Manager makes decision to confirm if an incident is defined as an 'Emergency' or only an 'incident' that can be dealt with through incident management procedures in the C-ESMP.

25 In the event of an 'Emergency' being declared the PM, the preselected Emergency Incident Control Team (EICT) will convene in the camp meeting room, which becomes the Incident Control Room for the duration of the Emergency. The core team of the ERT are:

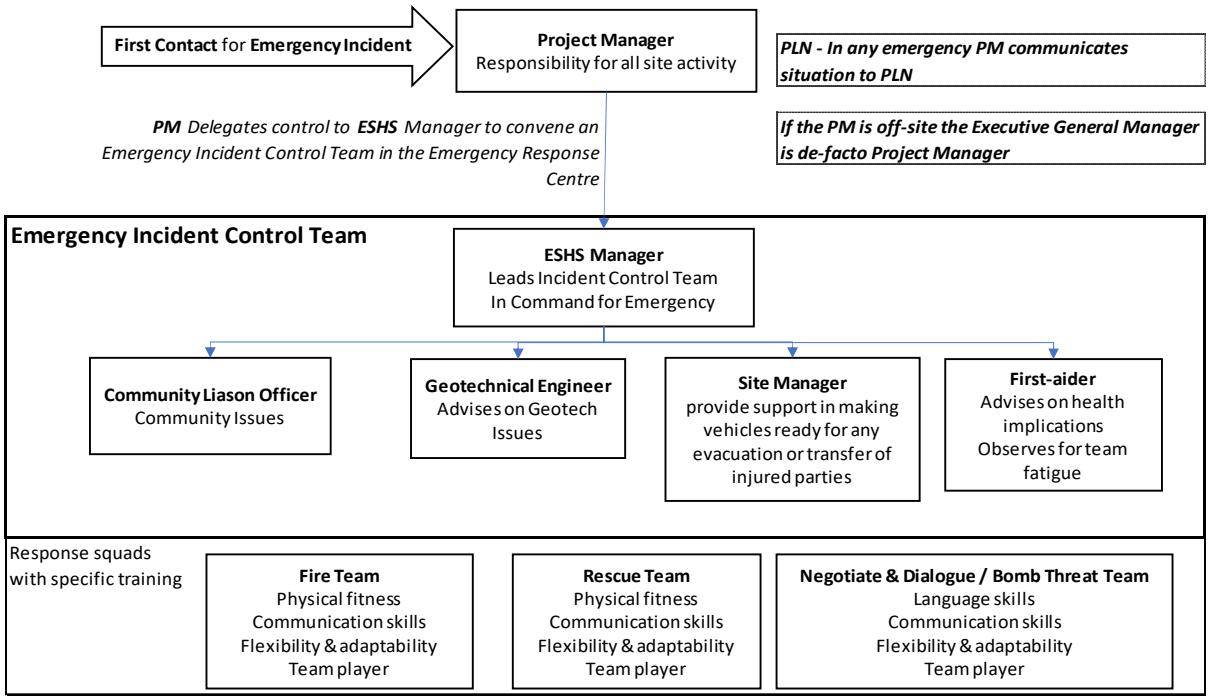
- ESHS Manager as a leader
- Community Liaison Officer as Team Member – To advise on local community issues that may influence CDW-JV emergency response and specialist advise during any public / civil unrest situations;
- First Aider as Team member – Will advise when emergency is beyond the capability of camp support for the Team Leader to request ambulance support from the nearest hospital or advise hospital that victims are on the way to the hospital in site vehicles.
- Geologist as Team Member – Main role will be nursing cases of natural disaster where slope stability, likelihood of aftershock could be an issue
- Site Manager as Team Member - The Site Manager will provide support in making vehicles ready for any evacuation or transfer of injured parties to advanced medical facilities i.e. The Karisma Hospital in Padalarang [approx. 23Km from the site with a 44minute lead time].

26 In addition to the Emergency Incident Response Team the CDW-JV has identified three dedicated response squads who will receive disciple specific training and also additional training in first aid. These squads are:

- Fire Team – Firefighting - will be trained in fire fighting techniques
- Rescue Team – Response team for rescue in case of natural disaster, fire, security issues etc.
- Negotiation and Bomb Threat Team – Response team when there are issues associated with Civil disorder and threats to camp personnel / property

27 Depending on the scale of an emergency the Team Leader may co-opt other members to the EICT. Figure 2- 2 shows the organisation of the Emergency Incident Control Team.

Figure 2- 2: Organization Chart for Emergency Response Team



2.2.1.2 Roles 1 – Project Manager

28 The Project Manager has responsibility and ultimate control for the Road Rehabilitation Site and its activities in the event of an Emergency. He declares an EMERGENCY for an emerging situation. However, his first action after confirming the Emergency is to hand over control of the emergency to the EICT and its team leader the ESHS Manager.

29 Once control has been handed over to the EICT the PM takes a not interventionist role in the emergency but will take responsibility to inform the Client (PLN) and the CDW JV organization of the emerging situation on an as needed basis.

2.2.1.3 Roles – EICT Leader – ESHS Manager

30 The EICT Leader is in overall command and control during an emergency and achieves this by leading and coordinating the actions of the EICT. The EICT leader manages the actions taken during the emergency to safeguard personnel, the environment and property. The main responsibilities are to:

- Ensure that the EICT are utilizing the appropriate emergency checklist.
- Ensure all personnel are accounted for.
- Make any decisions regarding the need to evacuate or partially down-man Facilities.
- Ensure appropriate instructions are given to the response squads and the appropriate strategy and tactics are implemented.
- Ensure all response squad team members receive adequate support.
- Ensure the correct information is being transmitted to outside contractors.
- Ensure all non-emergency personnel are kept updated by paging announcements or face-to-face briefings as appropriate.
- Hold regular team timeouts to ensure that the Incident Control Team is kept updated and is aware

of the actions required.

- Monitor Incident Control Team members for signs of stress.
- Provide information updates to the Project Manager
- Request the Incident Management Team mobilization.
- For a fire determine if camp resources are sufficient or if Cililin Fire Service need to be alerted [23Km distant, approx. 44 minute lead time]
- Determine if Emergency Car and First Aider need to be mobilized to pick up the injured persons and warn hospital victims are en-route or call Karisma Hospital in cases of severe burns, inhalation, etc., to send ambulance [30Km distant, 70minute lead time]
- The ECIT Leader (if non-native Bahasa speaker) will be accompanied by an assistant or second person in charge who can speak Bahasa during emergency situation to ensure an effective and precise communication.

2.2.1.4 Roles - Community Liaison Officer as EICT Team Member

- Principally to advise on community implications of all emergency situations
- In Civil Disorder Emergency
    - With EICT Leader and Security meet protest representatives for dialogue.

2.2.1.5 Roles - Geologist as EICT Team Member

- To advise on geotechnical implications influencing an emergency response
- In Natural Disaster Emergency
    - Liaise with Site Manager to determine:
        - if evacuation is required to avoid further death / injury:
    - If there is a possibility of further aftershocks, flooding, landslides
    - If the condition of the work areas is safe to work
- Determine if there is danger of further geotechnical activity from BMKG (meteorology, geophysics, climatology dept) resources

2.2.1.6 Roles – Site Manager as EICT Team Member

- To ensure that vehicles are available to transport the injured from site to camp and / or camp to Karisma Hospital (closest fully equipped medical facility)

2.2.1.7 Roles First-aider as EICT Member

- Advise the team leader on medical issues associated with the emergency i.e. Triage - conduct preliminary assessments of (casualties) in order to determine the urgency of their need for treatment and the nature of treatment required
- Determine if victims can be treated on site in the camp, will require transfer to the Karisma Hospital by site vehicle or if the Karisma hospital ambulance needs to be called out to camp.

2.2.2 Emergency Response Centre

31 The EICT will be based in an Emergency Response Center for the duration of the incident. The Emergency Response Centre is where the responsible parties meet in a physical location in the camp, to provide the first response to the incident and take the necessary actions to ensure that appropriate personnel are made aware of the incident's nature.

The EICT is also responsible for obtaining and recording available logistic resources and mobilizing these resources as instructed by the EICT Manager. The Emergency Response Centre will be equipped with tables, desks, whiteboards, and communications (including walkie talkie, mobile and internet access).

32 The Emergency Response Center's main functions are to:

- To provide a base to manage all resources for responding to any initial emergency information. The translator for non-Bahasa speaker will be stationed here.
- Utilize the relevant emergency checklist and implement the actions detailed within the checklist including the initial paging and radio announcement.
- Record the initial incident details.
- When appropriate ensure the Site Supervisor and first-aider are mobilized to the incident scene
- Request mobilization of resources as detailed in the relevant scenario specific emergency checklist or as instructed by the EICT Manager.
- Create, utilize and maintain the logistics and notifications status boards in the Emergency Response Centre
- Advise the EICT Manager regarding available resources.

2.2.3 Materials and hardware

2.2.3.1 Medical Facility

33 The medical facility on the camp will only provide basic first-aid facilities. It is equipped to offer an environment to stablilise a patient prior to transfer by Camp car or ambulance[8] summoned for more serious cases:

- A bed with pillow and blanket;
- A sink with running water, soap and brush;
- Tissue paper/cloths;
- Stretcher;
- Splints;

First aid kit (see Table 2- 2);

- Automated external defibrillator (AEDs) (to be confirmed);
- A space for storing equipment, such as: stretcher and/or wheelchair;
- Gown / clean clothing for First Aider and assistants;
- Trash can; and
- Waiting chair if needed.

2.2.3.2 First Aid Kits

34 CDW JV will provide on-site an Emergency First Aid Kit based on regulations of The Indonesia Minister of Manpower and Transmigration Republic of Indonesia, Number Per. 15/Men/VIII/2008 on First Aid in Workplace Accident. The content of kits for 25, 50 and 100 workers are identified in Table 2- 2. One Box A kit will be reserved for the exclusive use of Emergency Response.

[8] Karisma Cimareme Hospital 30Km distant approx. 70minutes by road.

Table 2- 2: Details of First Aid Kit on site

No	CONTENT	Box A (for 25 workers/labourers or less)	Box B (for 50 workers/labourers or less)	Box C (for 100 workers/labourers or less)
1	Wrapped sterile gauze	20	40	40
2	Bandage (5 cm wide)	2	4	6
3	Bandage (10 cm wide)	2	4	6
4	Plaster (1.25 cm wide)	2	4	6
5	Fast Plaster	10	15	20
6	Cotton (25 grams)	1	2	3
7	Triangle/mittela fabric	2	4	6
8	Scissors	1	1	1
9	Pin	12	12	12
10	Disposable gloves	2	3	4
11	(partner)	2	4	6
12	Face mask	1	1	1
13	Tweezers	1	1	1
14	Flashlight	1	1	1
15	Glasses for washing eyes	1	2	3
16	Clean plastic bag	1	1	1
17	Aquades (100 ml saline sol.)	1	1	1
18	Povidone Iodine (60 ml)	1	1	1
19	70% alcohol	1	1	1
20	Workplace First Aid Handbook	1	1	1
21	Notebook	1	1	1

2.2.3.3 Emergency Rescue Materials

35 Emergency Rescue Boxes shall be assembled at the start of the work for exclusive use in emergency events. A list of the materials to be included in the boxes is set out in Table 2- 3. To clearly identify the Emergency Rescue materials from other site materials they shall be placed in distinctively coloured wheeled containers and supplies checked monthly for validity. Figure 2- 3 shows a potential container system of 120liters (Dimensions: 480mmL x 545mmW x 930mmH).

36 In addition to the materials that will be stored in rescue kits, two stretchers will be stored in the medic room.

Table 2- 3: Emergency Kit Materials

#	Element	Technical specification	quantity
1	warning cone	/	30
3	full face gas mask	/	5 pairs
4	First aid kit	3 50*250* 250mm	5 _
5	Fireproof clothing	/	5 sets
7	fire blanket	1.5 * 1.5mm _ _	5 pieces
8	high frequency whistle	/	10 _

9	high-pitched speaker	/	5
1 0	Handheld Emergency Lights	/	10
1 1	reflective warning tape	5cm * 30m _	10 rolls
1 2	Insulated Fireproof Shoes	conventional	5 pairs
1 3	fire emergency gloves	X L	10 pairs
14	walkie talkie	/	10
15	lifeline	/	150 meters
16	gas detector	/	1
17	emergency response bag	Standard Size	2 pcs

Figure 2- 3: Moveable Container for Emergency Rescue Materials

2.2.3.4 "Ambulance" (Victim Transfer vehicle)

37 The RRW works does not include a dedicated purpose equipped ambulance but site 4WD vehicles can be repurposed in an emergency to carry a stretcher by fold down / removal of all seats behind the driver. The Site Manager will be responsible for determining which vehicles are suitable and directing repurposing of a vehicle in an emergency.

2.2.3.5 Fire Engine

38 The RRW works does not include a dedicated purpose equipped fire emergency truck. The site will be equipped with fire extinguishers (water and foam) and fire blankets will be stored in emergency kits for firefighting on a small scale. The following firefighting equipment is available in site vehicles and at potential risk locations on the camp. See Table 2- 4 for details of firefighting equipment on the RRW site.

Table 2- 4: Fire Extinguishers available on RRW project

Type of Fire Extinguisher	Size	Location			
		Each Project Site		Camp accommodation	
		Quantity	Design for	Quantity	Design for
Fire Extinguisher Powder	1 Kg	All transportation	Car and Heavy Equipment	All buildings	Wood, paper, textiles, flammable liquids & gasses & electrical,
	20 lbs or 50 lbs	4 bottle or 4 Wheel	Machine and other equipment	10 bottle or 2 Wheel	Rooms and storage Area
Fire Extinguisher Kitchen (K) [Wet chemical]	2 litre	-	-	2 bottle	Kitchen
Fire Extinguisher Foam	6 Kg	2 bottle	fuel storage and refuelling	2 bottle	fuel storage and refuelling
Fire Extinguisher CO_2	3 kg	2 bottle	Electric Panel	2 bottle	Electric Panel

39 Fire Blanket 1.5 m x 1.5 meter: two (2) at each active worksite site and two (2) at site accommodation.

3 CDW-JV Approach to Emergency Response Planning

3.1 Overview

40 The CDW-JV has developed procedures to manage emergencies that could occur during their daily operations of the RRW.

41 A preliminary screening has been carried out to identify which EPRPs have relevance to the Project in terms of a procedure being of direct relevance to staff activities and the ability of the project to respond to an emergency given the small number of response staff available (97 on Project, though only 38 foreign workers on site or at camp 24 hours and 59 local staff on site 8hrs / day), equipment availability and duration of works.

42 Each emergency response procedure is formulated based on the national safety construction guidelines and policies of Indonesia including laws and regulations considering the actual geophysical and societal conditions of the project. There are specific procedures for:

- Fire;
- Natural disaster;
- Civil Disorder / Camp Invasion; and
- Bomb Threat.

The procedures and flow charts identifying who needs to do what when are identified are described in Appendix 1 until Appendix 4.

3.2 Emergency Response Procedures Approach

43 The development of each Emergency Response Procedure follows a set of distinct assessment activities including Risk Analysis; Emergency Response Organisation – Roles and Responsibilities; Emergency response activities; Information Release; Post Processing; and Plan Management - including reviews, training and funding.

44 The first point of contact in an emerging situation is the Project Manager, the PM will immediately alert the ESHS Manager who will immediately assume the EICT Manager role and who will lead and initially assemble the **Emergency Incident Control Team** assembled from those with appropriate experience in the camp.

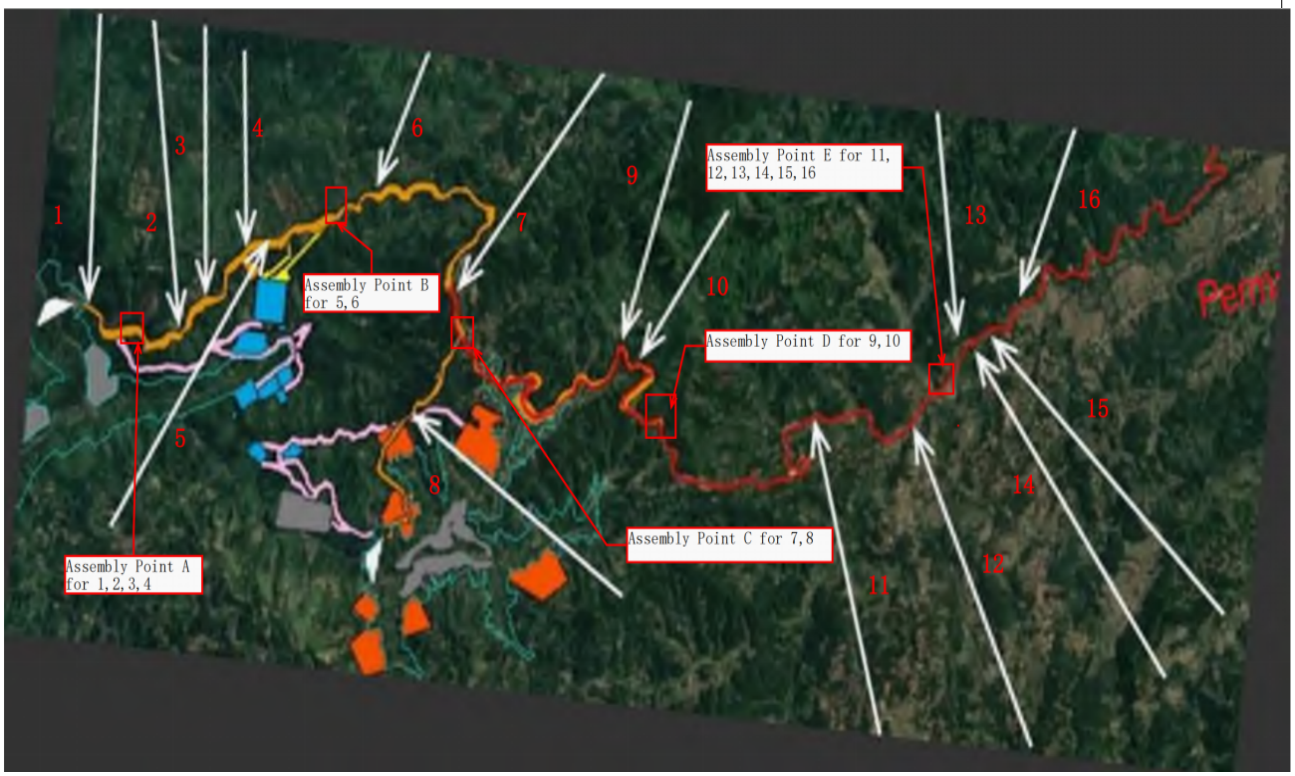
3.2.1 Muster on site and assembly

45 When an emergency occurs on site, staff will be alerted to stop work, make safe any powered mechanical equipment they are working with (including electrical equipment) and to move quickly to a pre-determined ‘muster point’ where a staff role call will be carried out to confirm that all staff have left the area of the emergency.

46 The signal to muster is **three five second blasts on a car horn, air horn or whistle**. When the muster signal is heard staff move to the muster point. At the camp, the muster point is a defined area adjacent to the security gate within the compound (see Figure 3- 1 for typical muster point signage). At site, the muster point is the area where vehicles parked when vehicles came from the camp to the works area at the start of work-shift. Once the senior member of the work team has determined that all workers are accounted for workers enter the transport and return to camp. This signal needs to be regularly tested and drills to be undertaken and all staff and workers are made aware and trained.

Figure 3- 1: Typical site compound muster point signage

Figure 3- 2A: Example of Emergency Lay Out



3.2.2 Emergency Response System

3.2.2.1 Overview

47 This section will describe the process for addressing an Emergency Situation on site by developing an Emergency procedure that CDW-JV will develop for managing specific emergencies. It should be seen as a process that can be applied to any emergency incident.

3.2.2.2 Incident response

48 An incident occurs (the Incident), an affected party, (e.g., Forman, laborer) contacts the camp and informs the ESHS Manager, Site Manager or Safety Officer who informs the Project Manager.

49 If the PM decides the incident is an EMERGENCY, he hands the responsibility for dealing with it to the leader of the Emergency Incident Response Team (EICT), the ESHS Manager.

50 The leader EICT becomes the Responsible Person for the duration of the Incident. A dedicated **Emergency Response Centre** will be set up in the camp with suitable seating desks, internet access, and it will become the command centre for the emergency response, equipped with the translator.Communication will include walkie talkie systems for real-time updates from the incident site.

51 The EICT Leader convenes an initial meeting of the EICT in the Emergency Response Centre involving the Community Liaison Officer, Geologist, Site Manager, and First-aider.

52 If appropriate the EICT manager will instruct a **Response Team** to assemble and attend the incident.

53 In some cases the team may decide there is insufficient information on the incident to determine a response e.g., location size, threat to life / property. In this case the ESHS Manager delegates the **Site Manager** to travel to the site and obtain the necessary additional information in a safe manner.

54 When the **Site manager returns** the RP convenes a meeting of an Emergency **Incident Control Team** to determine how to make a response to the incident (what personnel and equipment need to be dispatched to the incident remediation approaches to adopt, plant needed and if is safe to proceed under weather or light conditions, etc.)

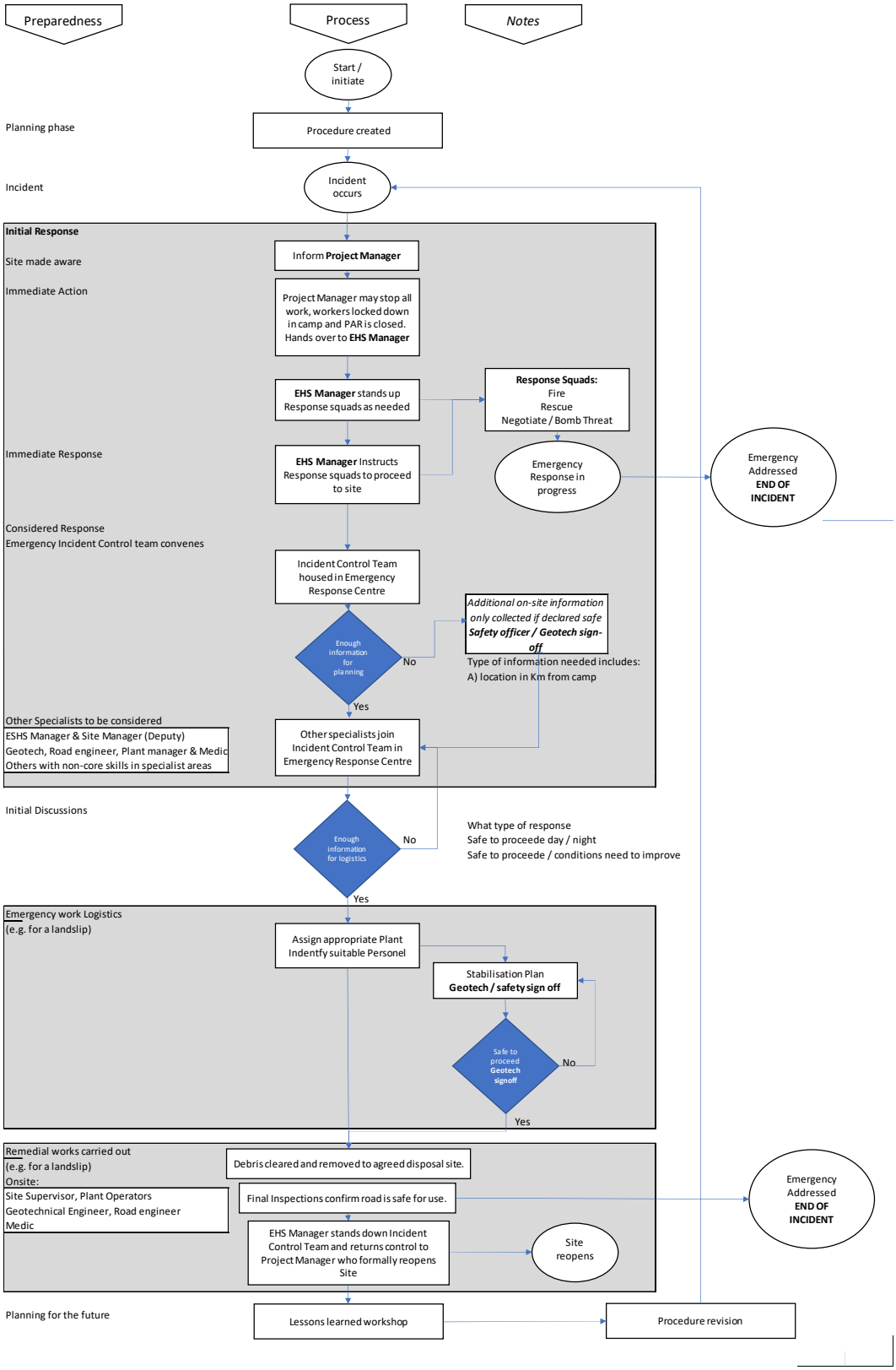
55 Any physical work on site will follow normally adopted site working practices identified in the C-ESMP. When Emergency Work is complete the EICT Manager will hand back the RP role to the Project Manager who will formally reopen the site.

56 All departments and units of the project department shall be responsible for initial emergency response work within the scope of their duties in accordance with the principle of "who is in charge, who is responsible" if it is safe to do so i.e., a minor spill, fire that can be addressed safely at site should not be left to develop into a major incident. Otherwise, they immediately call for assistance and offer immediate assistance in the form of rescue and treatment of victims, evacuations or other rescue measures.

57 At a site emergency, and if safe to do so, the team should control risk sources, mark dangerous areas, block dangerous places, delineate warning areas, and implement safety controls and other control measures. They should take necessary measures to prevent secondary and derivative events from occurring.

58 In Figure 3- 3 the activities described in this subsection has been developed into a flow chart that represents an Emergency Response Process.

Figure 3- 3: Generic Emergency Response Flowchart



3.2.3 Information Release

59 The Project Manager is responsible for the daily release / update of emergency information. Any release of emergency information shall follow the principles of law, timeliness, accuracy, objectivity and comprehensiveness.

3.2.4 Post Processing

60 Including Aftermath treatment (Clean-up); incident investigation; emergency response assessment; Insurance claims.

3.2.4.1 Aftermath treatment (Clean-up)

61 The project organizes personnel to clean up the site. If the cleanup needs to be postponed due to investigations, the site should be protected and only cleaned up after approval. If danger may occur during the cleaning process or there are special requirements for the cleaning work, a professional team shall clean up.

3.2.4.2 Incident investigation;

62 The emergency rescue team takes the lead in organizing or participating in the investigation of the accident and cooperates with government at all levels and higher-level units to determine responsibility. If it is a responsible accident, the unit or individual responsible shall put forward proposals to PM to address any concerns.

3.2.4.3 Emergency response assessment;

63 After the emergency response is over, the PM organizes and conducts emergency response evaluations in a timely manner, mainly evaluating information reporting, emergency response, emergency command, emergency response, resumption of construction, expansion of emergency response, etc.

3.2.4.4 Insurance claims

64 The PM delegates to the Financial manager to contact the insurance institutions in a timely manner, organizes and coordinates the insurance acceptance of emergency rescue personnel, the insurance claims of victims and the insurance claims of equipment and facilities.

3.2.5 Emergency Support

65 In addition to post emergency debriefing sessions the CDW-JV, through the EICT Manager, will carry out regular periodic review of the emergency response procedures to identify any improvements to the emergency command system, communication support. Medical and health issues and emergency team support (equipment and materials review).

3.2.6 Training

3.2.6.1 Overview

66 Based on Minister of Manpower Regulation (Permenkertrans) 15/2008, CDW JV will provide first aid officers for every 100 workers who are involved in the construction of the Project. As a minimum there will be a full time First Aider with formal training/qualifications and the EICT Manager, Site Manager, Site Supervisor, Safety Officer will will be trained as first aid officers in accordance with applicable regulations. Every worker who serves as First Aider will receive training on the basics of first aid within 30 days of works starting and simulation / drill within 60 days of works starting and every six months following.

67 First aid trainers will be taken from relevant agencies that have authority or providers that are certified in first aid training.

68 Basic orientation training is required for all staff, contractors, and visitors on their first day or work as part of site induction, to be able to follow emergency response instructions, including signals, emergency contacts, and where to find information on emergency evacuation routes and assembly points.

69 All workers will receive training using Light Fire Extinguishers for firefighting within 30 days of works starting and / or the start of their employment and will attend drills on a three monthly basis.

3.2.6.2 Site specific emergency response and evacuation training

70 CDW JV will provide all staff and subcontractors under their management with site or task specific emergency response and evacuation training within 30 days of works starting. At each tool box meeting workers will be reminded of the muster area / assembly point, location of emergency equipment etc. for their work area.

3.2.6.3 Emergency Response training:

71 In addition to the basic site-specific hazards and emergency response and evacuation training, individuals involved in the EICT or that can act as EICT Manager, Site Manager, Site Supervisor, Safety Officer, Medic, First Aider and others will be required to also conduct the following training:

- Emergency response and coordination for site emergencies – through review of emergency response plans, communication protocols and systems, and emergency evacuation procedures within 30 days of works starting;

- Participation in emergency response drills, working together with EICT and other managers to regularly review and practice emergency response and coordination activities, and through conducting actual emergency response simulation drills in various work areas. The first drill to be conducted within 30 days of works starting and six monthly thereafter.

72 The ESHS Manager will ensure that any emergency response service providers, including contracted and subcontracted personnel, have current and adequate training before being assigned, through contract specifications and verification during recruitment processes.

3.2.6.4 Emergency Response Drills

73 All workers will participate in evacuation / drill simulations for each emergency, fire, earthquake, flood, work accident, demonstration, bomb threat etc. within 30 days of works starting and then at least every 6 (six) months or as described in the Emergency Procedures in this Appendix 13

1 Appendix 1 – Emergency Response Plan for Fire

1.1 Preparedness

1 Dedicated Fire Team established and trained in the use of available firefighting equipment onsite Staff drilled in fire responses and equipment use.

2 Fire extinguishers subject to monthly checks

1.2 Role and Responsibility

1.2.1 Safety Officer

1 Report the accident incident to ESHS Manager with detail: Location, injure person and what happen

1.2.2 ESHS Manager

1 The ESHS Manager or Emergency commander has full authority to commit personnel and resources and is able to make full company representation, without reference to company top management, in an emergency situation.

2 Receive information on accidents and incidents from Safety Officer

3 Forward information on accidents and incidents to the Project Manager

4 Forward information on accidents and incidents to the Site Manager.

1.2.3 Project Manager:

5 Receive the information from the ESHS Manager regarding Fire accidents and incidents.

6 Forward the information on accidents and incidents to PLNE

7 Monitor accidents and incidents and forward updated information to PLNE

8 Declare Emergency Situation and ask EICT to handle emergency situation .

1.2.4 Emergency Incident Control Team:

1 Receive instruction to proceed with emergency procedure from Project Manager

2 The fire team to go to the fire location along with fire extinguisher matched to fire source.

3 Emergency Car to be deployed and First Aider to pick up the injure persons

4 The Emergency Incident Control Team with the fire team to extinguish the fire. Or if fire too large instruct to call in external national fire service and evacuation of affected area

4.1 Just abrasions, bruises and shock send to Project Clinic

4.2 if any indication of a fracture or 18% body burns or smoke inhalation send directly to Karisma Hospital (022) 686 6221 [30Km, 70 minute lead time]

4.3 If heart has stopped first aider on site starts CPR Defibrillator brought from camp. Inform hospital to send ambulance.

5 If the fire that occurs is small and can be localized send Fire Extinguish Team bring the fire extinguisher matched to type of fire

6 If the fire could not be localized or If the fire could extinguish and getting big call Cililin fire brigade (0220 694 0223 [14Km 44minute lead time]

7 Instruct Safety Officer to evacuate workers

8 Contact the hospital if have a casualty

8.1 Medic instructed to prepare emergency room for casualties (stabilization only)

8.2 For non-life threatening injuries Site Manager instructed to prepare vehicles for transfer to Karisma Hospital.

1.2.5 Fire Team

1.2.5.1 Receive instructions from EICT related to the fire that occurred, the location of the fire and the source of the cause of the fire
1.2.5.2 Carrying a type of fire extinguisher according to the source of the fire that occurred
1.2.5.3 Preventing, combating and extinguishing fires with the goal of protecting lives, the environment and property
1.2.5.4 Secure the fire location.
1.2.5.5 Operating tools and equipment used for firefighting safely and effectively
1.2.5.6 If the fire can be controlled and extinguished the Fire Team will declare that the condition can be overcome and is safe.
1.2.5.7 Inform the EICT Leader if the fire gets bigger and requires firefighting assistance
1.2.5.8 Manage traffic at the location of the fire assisted by the safety officer

1.2.6 Fire Brigade

1.2.6.1 Takes over from the Fire Team in putting out the fire
1.2.6.2 Protecting life and property in the event of fires
1.2.6.3 Ensuring that the fire that occurs is extinguished properly so that it does not cause another fire

1.2.7 Safety Officer and Security

15. Evacuate workers, visitors and public to safe area (muster station) if the fire cannot be controlled

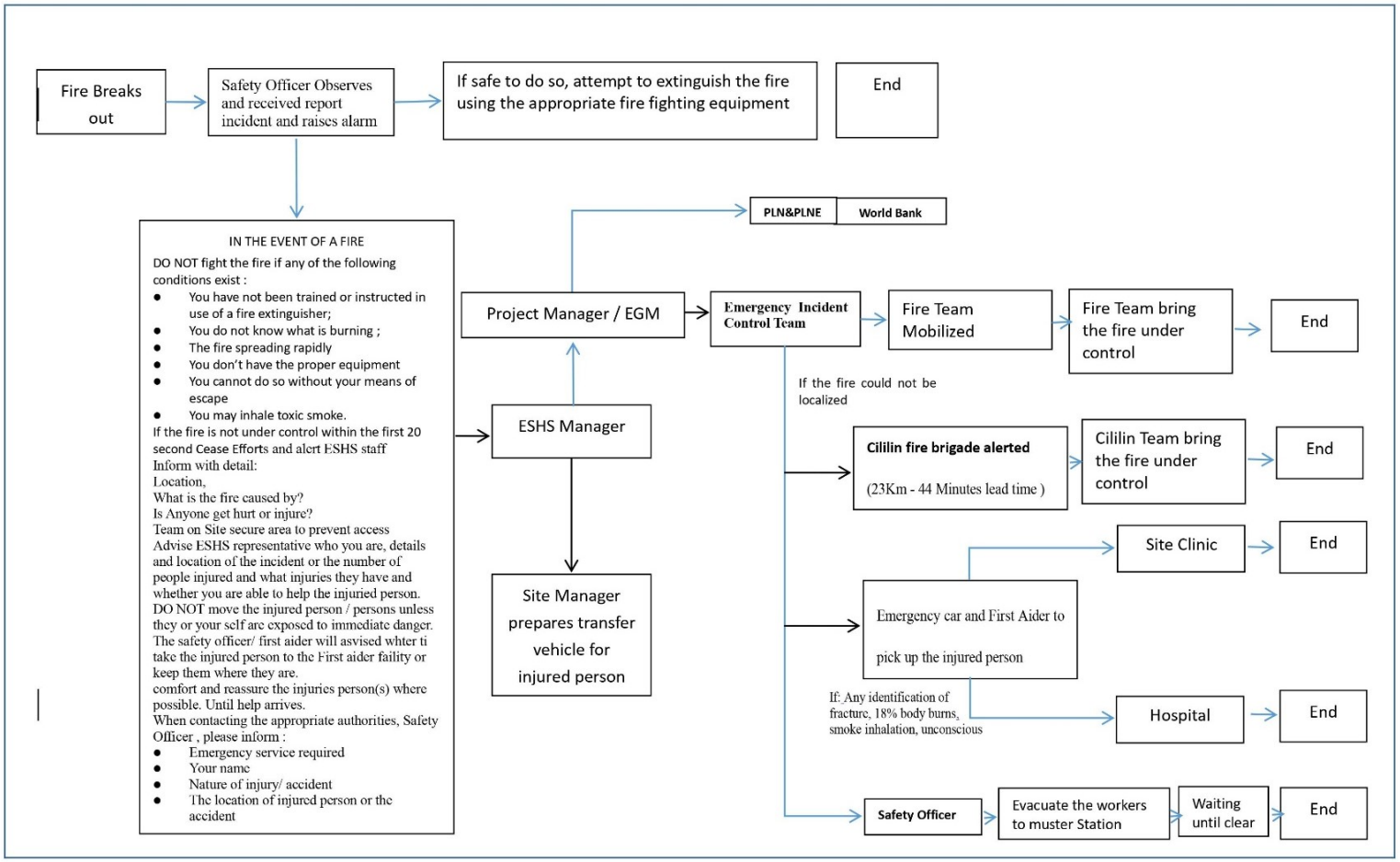
1.2.8 First Aider

1.2.8.1 check whether you or the casualty are in any danger.
1.2.8.2 find out what caused the accident or situation and how many casualties there are
1.2.8.3 find out what's happened, how many people are involved and how old they are
1.2.8.4 Assess the casualty and give first aid treatment.

1.2.9 Site Manager

1.2.9.1 Receive information from ESHS Manager about emergency
1.2.9.2 Evacuates public from the area if on the PAR.
1.2.9.3 prepares transfer vehicle for injured person

Figure 1- 1: Emergency Response flowchart for Fire



2 Appendix 2 – Emergency Response Plan for Natural Disaster

1 . Natural disasters include: landslip, earthquake, flash flood, etc.

2.1 Preparedness

- Dedicated Rescue Team established and trained in the use of equipment to digging at the location of the buried worker
- Regular check and maintain rescue equipment.
- Daily confirmation of suitable muster areas at each work location and install / maintain muster sign (at car parking area and / or within 100m of work area)
- Daily weather forecast checks. In the event of a heavy rain forecast, prepare as follows:
  - Secure / stabilize all exposed areas
  - Identify unsafe work areas
  - Project Manager issues a stop work notice in high risk areas (to be determined by ESHS Manager and / or ECIT team members)

2.1.1 Landslide Hazard Mapping

2 Landslide hazard maps indicate the possibility of landslides occurring throughout a given area. An ideal landslide hazard map shows not only the chances that a landslide might form at a particular place, but also the chance that it might travel downslope a given distance.

3 CDW JV will produce and annually update a landslide risk map showing landslide potential along the PAR with the expected losses to life and property, should a landslide occur. Risk maps combine the probability information from a landslide hazard map with an analysis of all possible consequences (property damage, casualties, and loss of service).

4 The annual review will determine if any changes to the hazard map have occurred due to changing conditions and identify any areas where pro-active repair / upgrading is needed – before the onset of the wet season.

2.1.2 Pre-wet-season surveys

5 The wet season in Indonesia runs from November to March and pre wet season surveys should be carried out in advance of this period. The focus will be to confirm:

- Any visible signs of slope distress along the PAR; and
- Drainage systems designed to carry away surface water are clear. Principally no blockages, disconnected pipework or channel sections.

6 The work will be carried out under the supervision of the project geotechnical engineer using a standard template prepared by the Geotechnical Engineer. Items to be considered include looking for evidence of:

- Landslide debris on the road or footpath.
- New large cracks or ground subsidence in slopes, retaining walls or along road pavements.
- Objects, such as mud, rocks, fragments of concrete/brick and uprooted vegetation, falling from slopes and retaining walls.
- Sudden change in colour (from clear to muddy) or path of water flowing from slopes or retaining

walls.
- Concentrated water overflowing onto slopes and retaining walls.
- Cement or concrete surface of slopes bulging or being dislodged or signs of soil erosion underway.
- Breaking of catch waters, serious overflow from catch-pits or drains.
- Flooding of water in hilly areas.
- Sudden increase in seepage over an extensive area of a slope or retaining wall.
- Listen out for cracking, rumbling or crunching sounds.

2.2 On completion of the fieldwork the Geotechnical engineer will prepare a report presenting the findings including clear identification of any remedial works needed before the commencement of the wet season. The finalized report will be issued to the Project Manager for action.Roles and responsibilities

2.2.1 Safety Officer

- Report the flood/landslide/earthquake to ESHS Manager with detail: Location(s), earth movements, river(s) in flood, damage to infrastructure, injured person and what happened

2.2.2 Workers

- Follow all instructions from supervisors.
- During and immediately following earthquake:
    - All workers to stay in place during shaking. Move away from windows, move away from heavy objects and objects that could fall. Move away from steep slopes. Stay in vehicles.
    - Immediately after shaking, if able, move to the nearest muster area. Help others.
- During high rainfall, flood or wash out:
    - Avoid flood waters.
    - If trapped by flood waters, find shelter and stay until it is safe to move or until rescued.
- Workers who find/inform natural disaster shall advise safety officer/ responsible person on site who will use emergency radio to inform Site Manager at camp of location and extent / nature of emergency.
- If site team is trained and it is safe to do so, control situation and secure area with available and appropriate equipment. Supervisor (who has the walkie talkie) on site issues muster call (three blasts on car horn or air horn) and all workers assemble at muster station. If this location is not secure senior on site identifies a safe location.
- Supervisor (who has the walkie talkie) member of staff takes roll call. If anyone is missing, initiate controlled search if safe to do so, otherwise wait at muster station for further instruction from Camp.

2.2.3 Site Manager

- On Site Manager makes immediate assessment of available information. Does the emergency potentially affect other size zones? If yes, use designated emergency radio channel to notify EICT who alert others in relevant zones, recalling them to camp or telling them to await further instruction.
- Inform the Natural Disaster Emergency to EICT Manager who assembles the EICT team.

- If the condition is safe to perform rescue / stabilization activity based on advice from BMKG or site Geologist, If yes Site Manager under (under monitoring by the Project Manager/EICT Manager/Geologist/Technical) conduct emergency rescue for workers who may be buried or need further assistance. Medic travels to site to offer first aid assistance.
- Locate injured workers and advise camp of their condition. If:
    - Just abrasions, bruises and shock, send Emergency Car and First Aider to the site and return with victim to Project Clinic.
    - If there is any indication of a fracture/ unconsciousness/open wound that requires serious treatment or other serious injuries that require serious treatment inform hospital to send ambulance or use the site emergency car to transfer to Karisam hospital [30Km from site and approximately 70 minutes lag time].
- In the event of Death the Project Manager will take charge.
- If advised by PM, EICT to notify Basarda, Police.

2.2.4 ESHS Manager

- ESHS Manager advises PM on any H&S or environmental concerns about the incident.

2.2.5 Project Manager:

- Receives information from ESHS Manager regarding Natural Disaster accidents and incidents.
- If appropriate forwarding information on the incident to PLNE and update when appropriate.
- Declare for the EMERGENCY and initiates the EICT response.
- In the Event find of a death PM calls Police, informs EICT and Administration Manager.

2.2.6 Geologist+ Project Manager+Site Manager

2.2.6.1 Conduct coordination and analysis of soil structure and work location to obtain a rescue strategy

2.2.7 Emergency Incident Response Team

2.2.7.1 Liaise with Site Manager * Geologist Technical to determine if:

- evacuation if required:
- If there is any possibility of further aftershocks, flooding landslip
- If site condition at the work location, make it impossible to continue

2.2.7.2 If yes to any of these, instruct Safety Officer to notify all staff, contractors & visitor on and off camp to move to muster stations and return to camp, if safe to do so. Or advise that they are staying at a safe location.

2.2.7.3 Remediation / making safe – If internal resources can handle the situation proceed with remediation / making safe after

- obtaining advice from BMKG (meteorology, geophysics, climatology dept)
- The condition of the work location is safe to proceed as per advice by Geologist
- Equipment for handling the emergency is sufficient; and
- Manpower resources have the experience and training to handle the emergency

2.2.7.4 Administration manger in EICT provides information to the next of kin and liaises with Hospital to get cause of death certificate. The Administration officer deals with all administration issues associated with police, BPJS and insurance

2.2.7.5 EICT received instructions from the Project Manager after coordinating with the Geologist so that the rescue team immediately carried out the rescue

2.2.8 Safety Officer

2.2.8.1 If there is a danger of aftershocks, further ground movement or flooding initiate muster and ask all staff, contractor & visitor to return to camp. If it is safe to do so. If not find a safe place and notify the Safety officer where you are and who is with you.

2.2.8.2 Evacuate the public to safe areas along the PAR.

2.2.9 Rescue Team

2.2.9.1 In carrying out its work, the Rescue team has the following duties and responsibilities

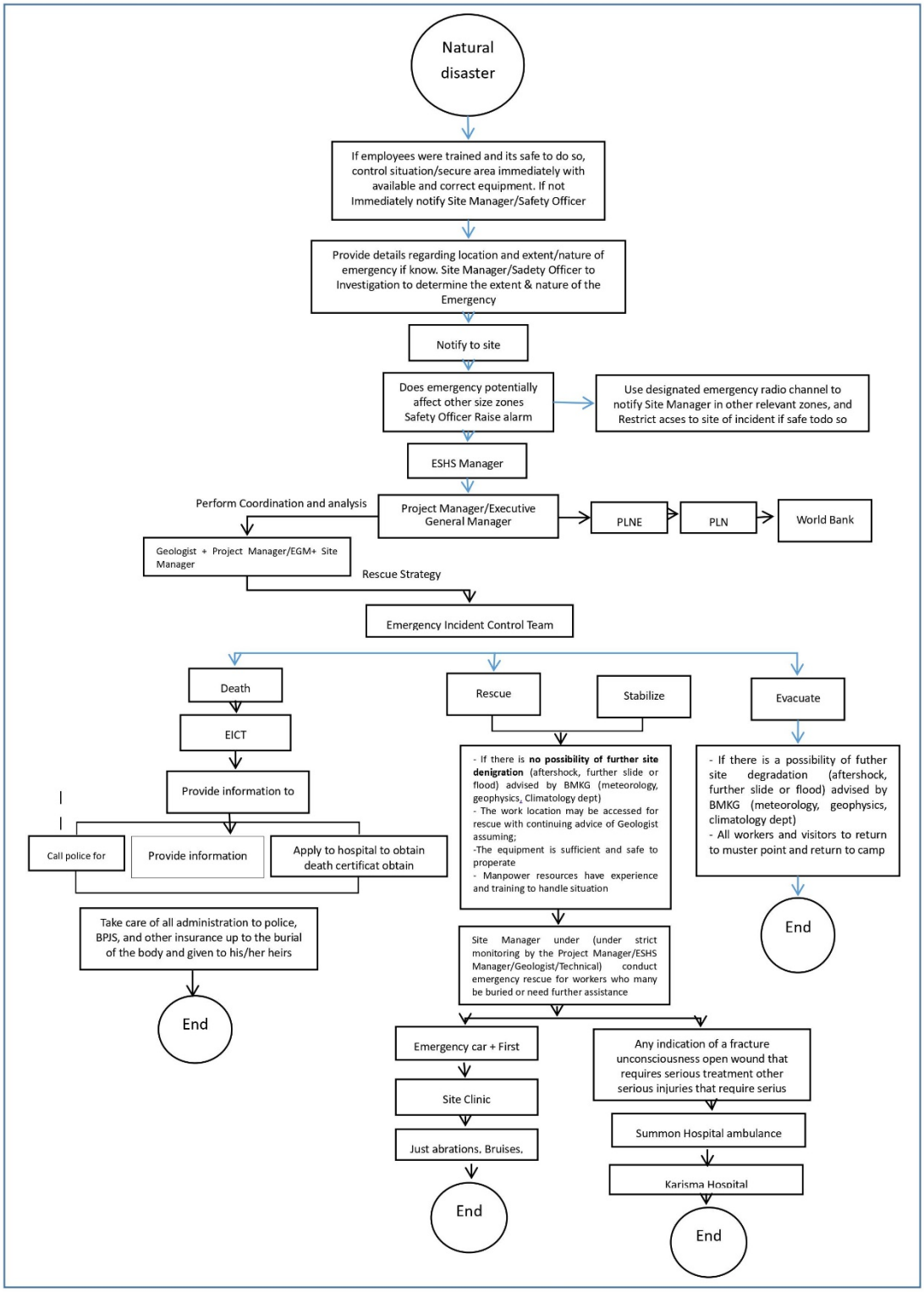
- Assessment of the disaster area
  - To identify and evaluate the disaster location involved
  - The size of the area involved in the operations, the possible hazards to victims and rescuers, the best access and escape routes, and the type of materials and equipment needs to pursue the operations
- Removal of all surface victims as quickly and safely as possible
  - When a non-ambulatory victim is found, rescuers can safely remove debris and free trapped victims.
- Search and rescue of victims from accessible void spaces
- Selected debris removal to locate and rescue victims
- General debris removal to render the scene safe for further operations.

2.2.10 Rescue kit will comprise the following items

2.2.10.1 Required special Rescue Kit

- Evacuation map of the Road Rehabilitation Section area
- Hammer
- Scope
- Stretcher
- Screw driver (6" flat)
- Axe
- 24" Crow bar
- Spade
- Pickaxe
- Spare battery cells
- Hard shoes or Gum Boots
- Helmet
- Hand gloves
- Dust Mask
- 50-foot rope
- Torch
- Flashlight
- Tripod

Figure 2- 1: Emergency Response flowchart for Natural Disaster



3 Appendix 3 – Emergency Response Plan for Civil Disorder / Camp Invasion

3.1 Preparedness

1. Dedicated Negotiate and Dialogue Team established and trained in the negotiation principals
2. Arrange periodic (annual) drill with police, site security and all workers.
3. Security team to monitor potential risks by following the grievances reported and managed by PLN and Contractor, studying police reports and using local intel.
4. Management briefed on a six monthly basis on potential risks, by security team, or at times of heightened tension.

3.2 Roles and responsibilities

3.2.1 Safety Officer

- Report the accident incident to ESHS Manager with detail: Location, and what happened

3.2.2 CLO

- CLO or Security got information that some local community are not happy with CDW JV and have plan to make demonstration at base camp or project site.
- CLO to inform Security officer about local community have plan to make demonstration.
- Communicate with GRM Team and Engineer's Social specialist to ask their assistance.
- Communicate with community leader and liaise him/her with Project Management

3.2.3 ESHS Manager

- ESHS Manager inform to Project Manager/EGM about demonstration planning by local community

3.2.4 Security officer

- CDW JV security
  - If Appropriate evacuate Workers:
  - All workers to evacuate to designated assembly points.Site Manager to maintain communications with the Emergency Response Team to ensure all Employee, Contractor & Visitor are accounted for.
  - Prevent demonstrators from entering the work and Secure Asset
  - Security Providing information regarding unaccounted for staff, Contractor & Visitors. Employees to act on & relay instructions to Emergency Response Team
  - Security receives 'All Clear' from ESHS Manager and then situation under control and back to work

3.2.5 Project Manager:

- Project Manager/EGM directly inform to PLNE and then PLNE to PLN and finally PLN to World Bank
- Project Manager +ESHS Manager, CLO and Emergency Incident Control Team meet the Civil Disorder Representative and the results of the meeting with demonstration representatives will be followed up on whether they can be accommodated or not with management
- Project Manager/EGM will decide if demonstration is a manageable condition or Emergency condition. category emergency condition if :
- There were people grouping up and shouting,
- The number is more than 10 people,
- There is a leader using the loudspeaker,
- There is pressure to enter the project area by force
- If Emergency, Project Manager/EGM and Safety officer directly inform to PLN to asking help to

cover the further action

3.2.6 PLN Emergency Response Team

If social situation beyond JV resources,

3.2.6.1 PLN may consider to request contractor to send the back-up resources
3.2.6.2 PLN inform to World Bank regarding the emerging emergency situation
3.2.6.3 In the serious emergency condition :

- Evacuate Workers: All Workers to evacuate to designated assembly points.Site Manager to maintain communications with the Emergency Response Team to ensure all Employee, Contractor & Visitor are accounted for.
- Prevent demonstrators from entering the work and Secure Asset
- Security Providing information regarding unaccounted for staff, Contractor & Visitors. Employees to act on & relay instructions to Emergency Response Team
- Security receives 'All Clear' from ESHS Manager and then situation under control and back to work

3.2.6.4 In the serious emergency condition:

- CLO+ESHS Manager+Project Manager
- PLN Emergency Rescue
- PLNE Emergency Incident Control Team
- CDW JV Emergency Incident Control Team

Meet to demonstrator representatives for dialogue

- If Dialog goes well, the demonstrators leave the demonstration location
  - If the demonstration became chaotic Police need to Secure demonstration

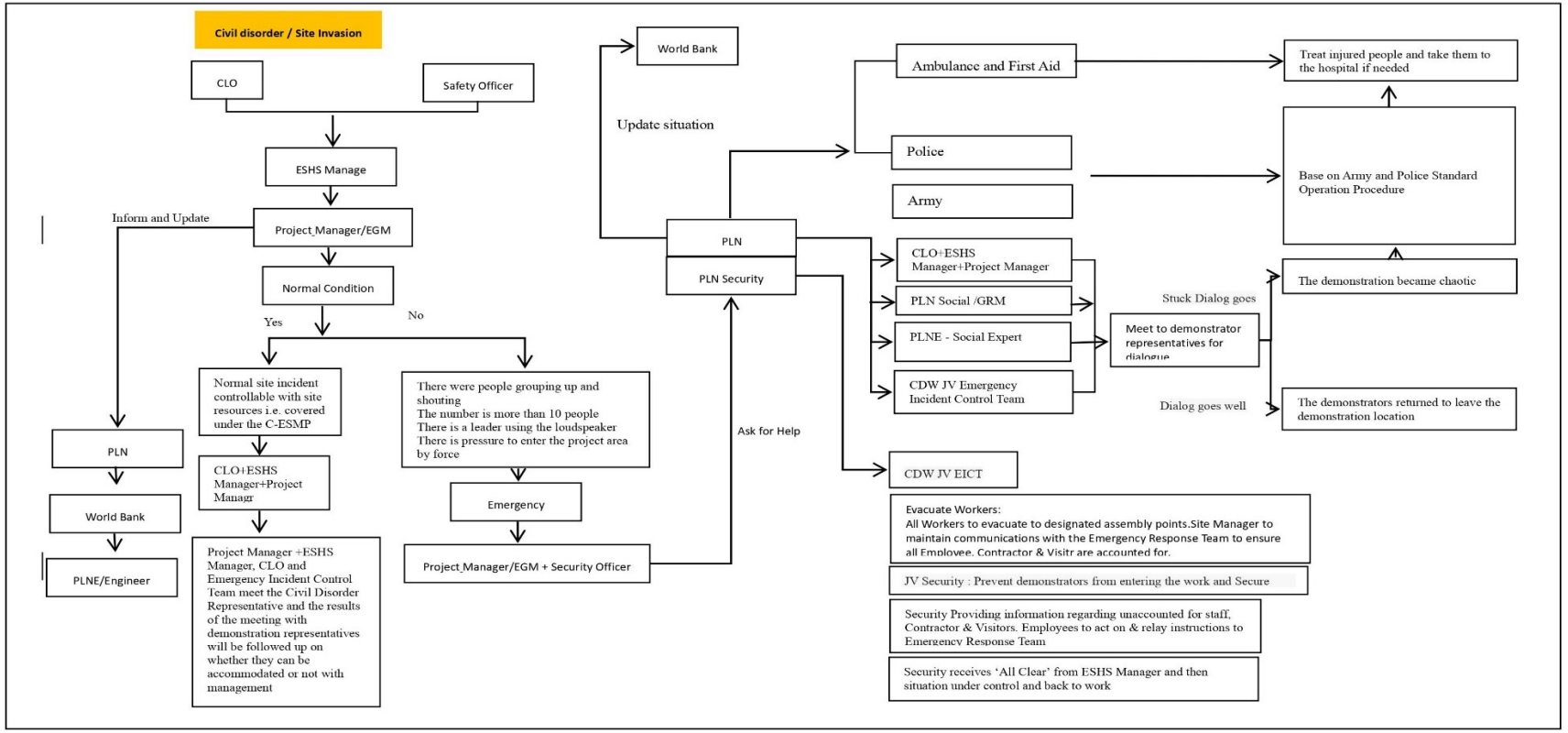
3.2.6.5 If injured people treat them and take them to the hospital if needed with ambulance

3.2.7 Negotiate and dialogue Team

3.2.7.1 The team from the CDW JV conducted the dialogue on the demonstration, where their job was to listen to the complaints and demands of the demonstrators who then provided proper explanations for the demands. The results of these negotiations are the best results both for the demonstration and for the company and we really try to avoid unwanted horizontal conflicts.
3.2.7.2 In carrying out the task, the negotiation and dialogue team has a function to:

- Analyze the position, reasoning, and values of the counterpart regarding the object of the negotiation;
- Identify specific priorities and objectives of the negotiation process;
- Design scenarios, bottom lines, and red lines to frame the negotiation process; and
- Assess the network of actors who may influence the position of counterparts

Figure 3- 1: Emergency Response flowchart for Civil Disorder[9]



[9] Army will not be contacted by Contractor or PLN, it is a matter for the police to decide what type of support they may need from other security forces.

4 Appendix 4 – Emergency Response Plan for a Bomb Threat.

4.1 Preparedness

1. Annual drill with police, security.
2. All workers including management have quarterly briefing and at times of heightened threat
5. Security team will implement Standard Operation Procedure When receiving guests, both pedestrians, using motorbikes and using private modes of transportation and receiving and dispensing materials using modes of transportation they will check for potential bombs as per their experience and formal training.
6. Security Team will be provided with with :
   - 6.1 Radio call (HT) for service users
   - 6.2 Amano Control Check clock machine (1)
   - 6.3 Whistle
   - 6.4 Handcuffs
   - 6.5 Inspection Mirror
   - 6.6 Garrett (Handheld Metal Detector)
   - 6.7 Traffic Cone (Cone)
7. Security team will undergo training to identify suspicious persons and bomb threats

4.2 Roles and responsibilities

4.2.1 Safety Officer

- Report the accident incident to ESHS Manager with detail: Location and what happened
- Muster all workers, visitors and public to safe spaces away from immediate harm.

4.2.2 ESHS Manager

The ESHS Manager is informed of a threat:

1. bomb threat
2. Phone bomb
3. Suspicious package

Then the Safety Officer reports to Project Manager about the threat of a bomb

4.2.3 Project Manager:

Call the Cipongkor police to report the threat of a bomb.

The police review and if required to call Gegana (Special police for handling bombs).

Gegana Team Searching and combing the entire project location using a bomb detector

In parallel to call Cipongkor police, the Project Manager forwards this information to PLN in detail

PLN received the report then conducted an assessment and may consider to take over control of handling the bomb threat

4.2.4 PLN Emergency Response Team

4.2.4.1 PLN inform to World Bank regarding the emergency situation

In case PLN took over over control of handling the bomb threat

4.2.4.2 PLN received the report then conducted an assessment and took over control of handling the bomb threat

4.2.4.3 If there is no possibility of a bomb occurring and it is just an ordinary threat, then the area is declared clear and workers can return to work

4.2.4.4 If there is a possibility of a bomb
4.2.4.5 If not already done by Safety Officer, PLN will ask CDW JV EICT to evacuate all workers to the assembly area waiting for further instructions

4.2.4.6 If No bombs or suspicious packages are found the area is declared clear and workers can return to work
4.2.4.7 If a suspicious package or device is found, do not touch, cover, handle or move it
4.2.4.8 Checked with a bomb detector and saw the existing circuit by Gegana
4.2.4.9 If the package is not a bomb, the area is declared clear and workers can return to work
4.2.4.10 If the package is a bomb then Exploded or taken in a special Gegana vehicle
4.2.4.11 All Clear by Gegana
4.2.4.12 The area is declared clear and workers can return to work

4.2.5 Bomb Threat Team

The team from CDW JV who have been trained to handle bomb terror situations, so that workers' situations can be handled and unnecessary chaos arises

Duties and responsibilities are:

- 1. Calm workers to be directed to the assembly point
- 2. Receiving anonymous phone calls related to the bomb terror
- 3. Removing people safely from the scene of a suspicious package and / or explosive device until trained experts arrive.
- 4. Provide the necessary information if there are questions from Gegana or the Police bomb expert

Figure 4- 1: Emergency Response flowchart for Bomb Threat