



**REPUBLIC OF TURKEY  
MINISTRY OF TRANSPORT  
AND INFRASTRUCTURE**

**AYEM**  
Altyapı Yatırımları Genel Müdürlüğü

**ÇINAR®**  
ENGINEERING  
CONSULTANCY INC.



**DİVRİĞİ-KARS-GEORGIA BORDER RAILWAY LINE  
REHABILITATION AND MODERNIZATION PROJECT  
EMERGENCY PREPAREDNESS AND RESPONSE PLAN  
CNR-ETMIC-EPRP-001  
(Rev.04)**

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<b>Project Location</b>	<b>Divriği – Erzincan – Erzurum – Kars – Georgia Border</b>
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## ABBREVIATIONS & ACRONYMS

<b>AFAD</b>	Disaster and Emergency Management Presidency
<b>AIIB</b>	Asian Infrastructure and Investment Bank
<b>AYGM</b>	General Directorate of Infrastructure Investments
<b>BTK</b>	Baku-Tbilisi-Kars
<b>CHMP</b>	Cultural Heritage Management Plan
<b>CHSMP</b>	Community Health and Safety Management Plan
<b>ÇINAR</b>	Çınar Engineering Consultancy Inc.
<b>Contractor</b>	Expert Firms responsible for the construction of the Project on behalf of AYGM
<b>EHS</b>	Environmental, Health, and Safety
<b>EMS</b>	Emergency Management System
<b>EPRP</b>	Emergency Preparedness and Response Plan
<b>ERT</b>	Emergency Response Team
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>ESIRT</b>	Environment and Social Incidence Response Toolkit
<b>ESMP</b>	Environmental and Social Management Plan
<b>ESSs</b>	Environmental and Social Standards
<b>ETMIC</b>	Eastern Türkiye Middle Corridor Railway Development Project
<b>HS</b>	Health and Safety
<b>KPI</b>	Key Performance Indicator
<b>LMP</b>	Labor Management Procedure
<b>MSDS</b>	Material Safety Data Sheets
<b>PIU</b>	Project Implementation Unit
<b>PPWMP</b>	Pollution Prevention and Waste Management Plan
<b>RAP</b>	Resettlement Action Plan
<b>RCA</b>	Root Cause Analysis
<b>RF</b>	Resettlement Framework
<b>RIS</b>	Railway Information System
<b>SEP</b>	Stakeholder Engagement Plan
<b>SPT</b>	Standard Penetration Test
<b>TCDD</b>	Turkish State Railways
<b>TMP</b>	Traffic Management Plan
<b>WB</b>	World Bank
<b>WBG</b>	World Bank Group



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## APPENDICES

### APPENDIX-1 EMERGENCY CONTACT LIST



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## 1. INTRODUCTION

The Divriği-Kars-Georgia Border Railway Line Rehabilitation and Modernization Project (covered under Component 1 of Eastern Türkiye Middle Corridor Railway Development Project (ETMIC)) stands as a transformative initiative poised to rejuvenate and upgrade the existing railway infrastructure spanning several provinces in Türkiye. This ambitious project, overseen by the General Directorate of Infrastructure Investments (AYGM) under the Ministry of Transport and Infrastructure (MoTI), seeks not only to modernize rail transportation but also to catalyze regional economic growth and fortify cross-border connectivity.

The multifaceted project unfolds in several strategic components. The preliminary phase involves meticulous land preparation activities, setting the stage for an extensive construction phase encompassing the refurbishment of railway tracks, bridges, and stations. The operational phase is dedicated to ensuring the seamless and sustainable operation of the revitalized railway infrastructure.

The ETMIC project consists of two main components:

- Component-1. Rehabilitation and Modernization of the Divriği-Kars-Georgia Border Railway Line
  - Sub-component 1.1. Design, Infrastructure and Superstructure Works, Electrification, and Signalization of the Divriği-Kars-Georgia Border Railway Line
  - Sub-component 1.2. Design Supervision and Construction Supervision Services for the Rehabilitation and Modernization of the Divriği-Kars-Georgia Border Railway Line
- Component-2. Project Management
  - This component focuses on the effective management and oversight of the project implementation process. It involves the financing and mobilization of specialized firms to provide project management, engineering, social and environmental monitoring, and evaluation services.

The environmental and social risk rating of ETMIC identified as “Substantial” according to the Environmental and Social Framework (ESF) of the World Bank.

A contract was signed between AYGM and Çınar Engineering Consultancy Inc. (ÇINAR) in November 2023, for conducting the Environmental and Social Impact Assessment in accordance with the WB standards. The contract entails the preparation of an ESIA Package, which includes the following components:

- Environmental and Social Impact Assessment Report (ESIA)
- Environmental and Social Management Plan (ESMP),
- Community Health and Safety Management Plan (CHSMP),
- Emergency Preparedness and Response Plan (EPRP),
- Traffic Management Plan (TMP),
- Biodiversity Management Plan (BMP),
- Pollution Prevention and Waste Management Plan (PPWMP),
- Cultural Heritage Management Plan (CHMP),
- Labor Management Procedure (LMP),
- Resettlement Framework (RF),
- Occupational Health and Safety Management Plan (OHSMP),
- Stakeholder Engagement Plan (SEP).

During these studies; environmental, social, and culturally sensitive areas in the project impact area were specified in the ESIA reports, and mitigation measures were proposed.



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The EPRP, which is one of the documents prepared within the scope of the ESIA package, describes the measures and controls developed in line with the mitigation hierarchy for the management of the impacts identified during the impact assessment process, determines the implementation schedule, roles and responsibilities, reporting and monitoring requirements.

Possible emergencies that could arise during the land preparation, construction and rehabilitation phases of the project encompass a range of situations. These include emergencies stemming from natural disasters, potential fires within the work area and surrounding forests, traffic accidents, incidents involving hazardous materials, acts of sabotage, and more. To effectively address these potential challenges, EPRP has been developed.

### 1.1. Scope and Objectives

EPRP has been carefully developed to provide a clear framework for taking specific actions and following established protocols when emergencies arise. The plan has a dual purpose: firstly, it aims to proactively prevent emergencies during both the construction, rehabilitation and operation phases of the project; secondly, it aims to minimize potential damages that might occur due to unexpected emergencies.

As the project advances, Turkish State Railways (TCDD) is fully dedicated to completing the necessary steps to create, review, and put the EPRP into action during the operational phase. This commitment ensures a strong and all-encompassing approach to preparing for and responding to emergencies.

The primary goal of the EPRP is to establish effective and prompt responses to potential emergency situations that could arise during the land preparation, construction and rehabilitation phases of the Project.

### 1.2. Roles And Responsibilities

The contractors are responsible for meeting the outlined obligations in this plan by tailoring them to their specific activities. The contractors are required to create their own EPRP and associated procedures that align with AYGM's policy, detailing how they will execute the requirements of this plan. The contractors' site-specific EPRP needs to be submitted to AYGM for approval before commencing construction and rehabilitation works.

The contractors are also accountable for regularly updating their site-specific EPRP to address changing project needs or newly identified requirements. The contractors are also obliged to ensure that any subcontractors they engage adhere to the provisions outlined in the contractors' site-specific EPRP.

Furthermore, the contractors are responsible for ensuring that their personnel participate in all training programs, including routine site-specific training sessions focused on Environmental and Safety (E&S) matters, including Emergency Response.

AYGM is fully committed to maintain a high level of emergency preparedness, the objectives of which are;

- Establishing and sustaining a well-trained and regularly exercised emergency response organization.
- Ensuring clear comprehension of roles and responsibilities among members of the emergency response team.

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- Periodically reviewing the Emergency Response Procedures to guarantee their efficacy in managing emergencies.
- Allocating appropriate resources and expertise for swift responses to emergency situations.

Personnel of both contractors and subcontractors, as well as those individuals under the Contractor's authority, must become acquainted with the Emergency Response Procedures.

For activities involving AYGM, sub-contractors, and other involved parties, the managers overseeing these activities will be responsible for generating interface documents for AYGM's EPRP. These documents will outline the necessary actions to be taken in the event of an emergency.

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## 2. LEGAL FRAMEWORK

### 2.1. National Legislation

The decisive national legislation under the EPRP is the Labor Law (Law No: 4857) and the Occupational Health and Safety Law (Law No: 6331). In addition, the following regulations and communiqués have been taken into account within the scope of EPRP.

- Communiqué on Workplace Hazard Classes Regarding Occupational Health and Safety
- Regulation on the Protection of Employees from Noise-Related Risks
- Regulation on the Protection of Employees from Vibration Related Risks
- Regulation on Health and Safety Conditions in the Use of Work Equipment
- Occupational Health and Safety Regulation
- Regulation on Occupational Health and Safety in Construction Works
- Regulation on Occupational Health and Safety in Temporary or Fixed Term Jobs
- Regulation on Health and Safety Measures in Working with Chemicals
- Health and Safety Signs Regulation
- Regulation on Combating Dust
- Regulation on Safety Data Sheets on Harmful Substances and Mixtures
- Occupational Health and Safety Risk Assessment Regulation
- Personal Protective Equipment Regulation
- Regulation on the Vocational Training of Those to be Employed in Jobs in the Dangerous and Very Dangerous Class
- Regulation on Control of Polychlorinated Biphenyl and Polychlorinated Terphenyls
- Communiqué on Major Accident Prevention Policy Document (Official Gazette 29435, 4 August 2015).
- Regulation on Prevention and Mitigation of Major Industrial Accidents (Official Gazette 28867, 30 December 2013).

### 2.2. International Standards

As the World Bank (WB) and Asian Infrastructure Investment Bank (AIIB) are the lending institutions/banks for the project, the project activities should be performed in line with international standards and Good International Industry Practice (GIIP) in addition to national legislation.

The environmental and social policies called the Environmental and Social Framework (ESF) has been adopted by the World Bank in August 2016. The ESF enhances the World Bank's commitment to sustainable development through ten (10) Environmental and Social Standards (ESSs) that are designed to support Borrowers' E&S risk management. The ESF enables Borrowers to better manage project risks as well as improve environmental and social performance, consistent with good international practices. The ESSs are listed below:

- ESS1: Assessment and Management of Environmental and Social Risks and Impacts
- ESS2: Labor and Working Conditions
- ESS3: Resource Efficiency and Pollution Prevention and Management
- ESS4: Community Health and Safety
- ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

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- ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
- ESS8: Cultural Heritage
- ESS9: Financial Intermediaries
- ESS10: Stakeholder Engagement and Information Disclosure

Moreover, World Bank Group (WBG) General Environmental, Health and Safety (EHS) Guidelines (2007) is another document that should be taken into consideration when carrying out project activities. In addition, WBG Environmental, Health and Safety (EHS) Guidelines for Railways (2007) will be applicable within the scope of this Plan.

The Environmental and Social Safeguards Policy of the Islamic Development Bank (IsDB), as of February 2020, outlines the institution's commitment to promoting sustainable development while minimizing adverse environmental and social impacts associated with its projects.

On the other hand, AİIB incorporates its own policy addressing environmental and social impacts into ESF which was approved in February 2016 and amended through February 2019, May 2021 and November 2022. The ESF consists of three (3) ESSs which are indicated below:

- ESS1: Environmental and Social Assessment and Management
- ESS2: Land Acquisition and Involuntary Resettlement
- ESS3: Indigenous Peoples

It should be noted at this point that evaluations will be made based on WB ESSs among international standards.

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### 3. MITIGATION MEASURES AND MANAGEMENT CONTROLS

#### 3.1. Emergency Preparedness

Health facilities equipped to handle emergency procedures and routine medical operations will be provided at the camp sites. This will be done to minimize the strain on existing healthcare facilities as much as possible.

The Contractors will conduct an assessment of all healthcare facilities within the project's influence area. This assessment aims to determine which facilities should be utilized for emergencies and medical treatments that cannot be managed by internal healthcare facilities. Special consideration will be given to prevent any adverse impacts on the regular users of these facilities.

Effective communication with local health authorities will be maintained by the Contractors. This ensures that any critical issues are promptly conveyed and mutually agreed-upon solutions are reached.

Uninterrupted access to settlements will always be assured. This will be achieved through diversions or by allowing vehicle passage during specific hours, facilitated by the use of steel plates over trenches.

Local authorities and communities will be kept informed and consulted about the potential impacts of Project activities on health services and facilities. These discussions will take place during pre-construction and construction meetings, as well as through stakeholder engagement activities.

To facilitate communication and resolutions for concerns, complaints, and grievances from communities and individuals, a formal grievance mechanism will be established. This mechanism will aid in finding solutions acceptable to all parties involved.

The Contractors will guarantee that spill response equipment, tailored to handle potential spill scenarios, is readily available at each specific site. On-site, there will be the necessary spill response equipment to address any potential spills that may occur during the transportation of fuel by diesel tankers to the camps and construction areas.

EPRP for the Contractors and its subcontractors shall encompass, but not be limited to, the following components:

- Defining potential emergency scenarios for the Project.
- Specifying communication requirements in the event of an emergency.
- Establishing an Emergency Response Team with clearly defined responsibilities and training requirements, as a minimum to comply with legislative requirements.
- Identifying and publicly announcing Emergency Evacuation Routes.
- Identifying a minimum set of emergency response equipment in compliance with legislative requirements.
- Clearly marking the location of Emergency Response Equipment on site drawings and communicating this information to the workforce.
- Defining the frequency of Emergency Drills, with a minimum requirement of every six months.
- Establishing procedures for recording and reporting emergency cases.
- Implementing waste segregation and recycling protocols.
- Identifying Licensed Domestic Solid Waste Disposal Areas through communication with local authorities.
- Identifying Licensed Hazardous Waste Disposal Areas through communication with local authorities.

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- Identifying and arranging Temporary Waste Storage Areas in compliance with applicable regulations.

### 3.2. Geological-Geotechnical Risks

- There will be deep cut&fill locations in route of project. These cut&fill locations are considered as critical section in terms of geotechnical and should be very well examined. In these locations, after loose and botanical topsoil will be excavated, it will be backfilled with granulated crushed stone. Followingly, backfill will be compacted/preloaded properly to prevent settlement and bearing capacity problems.
- In critical regions, for clay with silt and silty-clay soil locations, first 20 m depth of ground will be improved by jet-grout and geopier applications against low Standard Penetration Test (SPT) value and liquefaction possibilities.
- In the critical slope stability locations, numerical analyze method will be used in geotechnical report which will be prepared with certain parameters and material specifications during operation phase of the project.
- There is no rock foundation below the railway bridge abutments as per performed borings, therefore, deep friction pile foundation will be applied for footing.
- By carrying out periodic control and maintenance activities along the routes, additional durability and structural measures will be developed and implemented in cuts and fills when necessary (cracks, breaks, slips, deformations etc. of engineering structures that could happen especially after natural disasters).

### 3.3. Seismicity Risk

- All structures like foundation, culverts etc. within the project will be designed and constructed as per high earthquake resistance parameters.
- In the structures to be constructed within the scope of the project, provisions of "Regulations for the Structures to be Built in Disaster Areas" published in the Official Gazette No. 26582 dated 14.07.2007 and "Turkey Building Code" of Disaster and Emergency Management Administration published in the Official Gazette No30364. dated 18.03.2018 that came into force in 01.01.2019 will be strictly followed.
- By carrying out periodic control and maintenance activities along the routes, additional durability and structural measures will be developed and implemented in cuts and fills when necessary (cracks, breaks, slips, deformations etc. of engineering structures that could happen especially after natural disasters).

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### 3.4. Landslide Risk

Landslides pose a significant risk to the project, especially in areas with steep terrain or unstable soil conditions along the railway corridor. Heavy rainfall, seismic activity, and human-induced factors such as excavation and construction activities increase the likelihood of landslides. Potential consequences include disruption of railway operations, damage to infrastructure, and threats to the safety of workers and nearby communities.

**Monitoring:** Implement a comprehensive monitoring program to continuously assess slope stability and detect early warning signs of potential landslides. This includes the installation of slope inclinometers, piezometers, and other instrumentation to monitor ground movement, soil moisture, and pore water pressure.

**Vegetation Management:** Maintain natural vegetation cover and implement revegetation programs in vulnerable areas to stabilize slopes, reduce soil erosion, and enhance slope stability. Implement measures such as erosion control blankets, slope stabilization mats, and bioengineering techniques to prevent soil erosion and mitigate landslide risks.

**Emergency Response Protocols:** Develop and implement emergency response protocols to effectively respond to landslide events. This includes establishing communication channels, evacuation procedures, and emergency shelters for workers and nearby communities. Train project staff and local authorities in landslide response procedures and conduct regular drills to test the effectiveness of emergency response plans.

**Community Awareness and Capacity Building:** Raise awareness among project stakeholders, including local communities, about landslide risks, early warning signs, and emergency response procedures. Provide training and capacity building programs to empower communities to respond effectively to landslide events and participate in disaster risk reduction efforts. Encourage community participation in landslide monitoring and mitigation activities to enhance project resilience and foster community resilience.

By implementing a combination of these measures, railway projects can significantly reduce the risk and impact of landslides. It is crucial to adopt a holistic approach that considers geological, engineering, and environmental factors in landslide risk management.

### 3.5. Impacts on Surface Flow and Flood Risk

Railway projects can have various impacts on surface flow and flood risk, depending on factors such as terrain, climate, and the specific engineering measures employed. The followings are some potential impacts and mitigation measures:

#### **Surface Flow Alterations**

- **Cut and Fill Operations:** Railway construction often involves cut and fill operations, which can alter natural drainage patterns. This may lead to increased surface runoff and potential flooding downstream.
- **Bridge Construction:** The construction of bridges can alter the flow of water underneath, potentially causing changes in sediment transport and local hydrology.

#### *Mitigation Measures*

- Design and implement proper drainage systems to manage increased runoff.
- Use erosion control measures such as silt fences and sediment basins during construction to prevent sedimentation in water bodies.

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### **Increased Flood Risk**

- **Obstruction of Watercourses:** The railway infrastructure, such as embankments, may obstruct natural watercourses, increasing the risk of localized flooding.
- **Urbanization Effects:** Development associated with railway projects, such as new stations or facilities, can contribute to increased impervious surfaces, leading to higher runoff and flood risk.

#### *Mitigation Measures:*

- Design bridges and culverts to allow for the natural flow of water beneath and through the railway infrastructure.
- Implement floodplain management strategies to avoid building in high-risk areas.
- Design stormwater management systems to control and mitigate increased runoff.

### **Erosion and Sedimentation:**

- **Clearing and Grading:** Land clearing and grading activities associated with railway construction can lead to increased soil erosion and sedimentation in nearby water bodies.

#### *Mitigation Measures:*

- Implement erosion control measures, such as vegetative cover, erosion control blankets, and check dams.
- Use Best Management Practices (BMPs) to minimize sedimentation during construction.

### **Hydraulic Changes:**

- **Bridge Construction:** Alterations in river or stream channels due to bridge construction can impact the hydraulic characteristics, potentially affecting floodplains and adjacent areas.

#### *Mitigation Measures:*

- Conduct hydraulic modeling to understand potential changes in river or stream dynamics.
- Implement measures to maintain or restore natural channel morphology.

### **Climate Change Considerations:**

- **Extreme Weather Events:** Climate change may result in more frequent and intense rainfall events, increasing the risk of flooding along railway corridors.

#### *Mitigation Measures:*

- Consider climate change projections in the design and planning stages.
- Design infrastructure to withstand extreme weather events and incorporate resilient features.

### **Emergency Response Planning:**

- **Flood Risk Management Plans:** Develop comprehensive flood risk management plans to guide emergency response and evacuation procedures in the event of flooding.

#### *Mitigation Measures:*

- Establish early warning systems to provide advance notice of potential flooding.
- Train railway personnel and emergency responders in flood response procedures.

It is crucial to conduct thorough environmental impact assessments and incorporate appropriate mitigation measures during the planning, design, and construction phases of



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railway projects to minimize their impact on surface flow and flood risk. Collaboration with local authorities, environmental agencies, and communities is essential for effective flood risk management.

### 3.6. Spills

Spill kits will be made available at all locations where hazardous material and hazardous waste is stored and handled, as well as mobile kits in all the heavy construction equipment at the site.

All temporary oil storage and hazardous materials tanks and containers onsite will be designed and constructed for compatibility with the materials to be stored within them and clearly labelled and will be adequate secondary containments.

The floor of fuel/oil tanks and hazardous material containers will be covered with an impermeable layer. Tanks and containers will be controlled regularly. Corroded and damaged tanks and containers will be repaired and/or replaced.

To minimize the impact from emergency incidents when they occur it is essential that a number of arrangements be established prior to an event such as;

- Training of site personnel and managers in emergency preparedness and response requirements,
- Provision of emergency response equipment,
- Communication and co-ordination with external emergency assistance providers.

Contaminated wastes will be gathered in designated (temporary waste storage) areas and it will be determined whether the waste is hazardous, non-hazardous or inert. Afterwards, cleaning/disposal process will be started according to the type of waste.

Storage tanks and vehicles will only be used for their intended purposes. Spill containment equipment is installed for the storage of all hazardous material and during all hazardous material handling. In case of any potential hazardous material release situations occur, the Environmental Expert will be notified. He/she will notify the Project Manager.

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## 4. RAILWAY OPERATION

This EPRP has been prepared for the construction and rehabilitation phases. Nevertheless, to establish a framework for the site specific EPRP to be prepared by TCDD/Contractors in operation phase, general requirements of that plan are also given within this scope.

### 4.1. Emergency Preparedness

Preparedness entails actions designed to save lives and minimize damage. It involves planning and training before a rail disaster to ensure an appropriate response when an emergency occurs. All responders should:

- Maintain an inventory of resources, including equipment and personnel that can be utilized.
- Train personnel in the responsibilities and emergency duties outlined in this Plan.
- Conduct periodic drills to test the effectiveness of this emergency preparedness.
- Review and update the Plan as necessary based on exercises, emergency responses, or changes in policy.

### 4.2. Emergency Response

Emergency Response commences immediately upon the identification or reporting of a rail emergency. Upon notification of a rail emergency, responders will promptly initiate notifications following TCDD protocols.

The first responder on the scene conducts an initial assessment and promptly informs relevant authorities, including the Fire Department and the police, providing them with all available information.

The first arriving Fire Officer assumes the role of the Incident Commander and takes charge of directing all emergency response actions until relieved of this role.

The Incident Commander evaluates the necessity for additional resources and collaborates with law enforcement to establish security measures, as well as access and traffic control.

The TCDD Branch Director is responsible for appointing supervisors to Emergency Management System (EMS) Divisions/Groups.

The Incident Commander instructs emergency response personnel, advising against moving property and debris associated with the wreckage, unless there is an imminent risk of their destruction or unless they obstruct access to passenger rescue efforts.

The health service officers are tasked with the identification and movement of injured parties.

The Disaster and Emergency Management Presidency (AFAD), Police Department, Fire Brigade, TCDD, and other relevant officials are required to establish communication with the Mayor. TCDD will maintain continuous communication with the Command Post throughout the emergency response operation.

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## 5. EMERGENCIES

### 5.1. Fire

#### Emergency Response Methods

Ensuring the safety of the employees who will respond is the priority in the fire. The fire department should be informed immediately. Employees should de-energize nearby machinery or equipment if possible. It should be ensured to go to the “Emergency Assembly Point” without panic by using the pre-determined and announced emergency exit routes.

Things to do in the emergency area in case of fire are listed below.

- Do not panic.
- If the fire is small, extinguish any visible flames with a portable fire extinguisher and notify your first supervisor and Project EHS Manager/emergency chief.

If the fire is difficult to control or it takes place in a closed area:

- Voice notification to those around,
- If there is a fire alarm button in the location, press this button, if not, inform first supervisor to make the emergency horn sound,
- Notify the supervisor and the Project EHS Manager/emergency chief,
- Cut off the energy of the Machine-Equipment that have been working with,
- Control the door handle (Hot surfaces should always be controlled with the palm, not the palm). Never open the door if the door handle is hot,
- Persons with first aid certificates should provide first aid to the injured,
- If there is no loss of life, go safely to the assembly area using the emergency exit route (if there is an item to be rescued first in a fire, take it),
- Do not pass through a completely smoke-covered area on the emergency escape route,
- Move as close to the ground as possible,
- If there is a person who is present in the workplace environment but disappears from the assembly area, do not forget to notify the first supervisor when arriving at the assembly area,
- In the meantime, the teams intervene with the team leaders according to the situation within their job descriptions. From the moment the fire brigade arrives, they become the assistant of the extinguishing team.

If the fire is behind a closed door but the doorknob is cold;

- Voice notification to those around,
- If there is a fire alarm button in the location, press this button, if not, inform first supervisor to make the emergency horn sound,
- Notify the supervisor and the Project EHS Manager/emergency chief,
- Cut off the energy of the Machine-Equipment that have been working with,
- Control the door handle. If the door handle is cold, stay close to the floor and on the hinge side of the door, and open the door as far as possible (this should always be done by two people, one person should be responsible for opening and extinguishing the door, while the other person should ensure the safety of the personnel who open the door),
- If the flames are seen, approach the fire by staying close to the ground and use the dry chemical powder fire extinguisher as a sweep for 3 seconds (Gas extinguishers are used continuously until the flames go out).

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- Regardless of whether the flames are extinguished or not, go out of the room after 3 seconds and observe the fire and wait for the dust to settle (approximately 10-20 seconds),
- If the flames are not extinguished, re-enter the room at the end of this period and repeat the same process,
- If the flames are out, do not re-enter the room,
- If the flames started again or the flames could not be extinguished, repeat this process until the flames are extinguished after the dust settles.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

## 5.2. Earthquake

### Actions during Earthquake

The actions that the employees in the building should perform are listed below.

- Wait until the earthquake effect passes in the closest sheltered area,
- Protect oneself in case of bending and holding at points that will form a life triangle, such as the sides of the fixed machine body, the sides of the solid goods.
- Heavy objects should not be placed on high places in construction sites (offices, dining halls, warehouses, WCs, etc.). Non-slip-based covers should be used to avoid the items and materials that must be placed from slipping and falling.
- There should be no objects in the work area that could fall or flow on floor coverings, shaft and cavity edges. Large and heavy equipment should be fixed to the floor or wall.
- Stay away from building edges, shafts and elevator shafts.
- Protect oneself from large and heavy materials that could topple or fall.
- Stay away from electrical panels and rooms.
- When the earthquake effect is over, go out of the nearest emergency exit and go to the assembly area,
- The second earthquake may recur so stay calm,
- Do not use phones except in extreme emergencies.
- Stay away from areas where there is a danger of glass breakage. Leave areas with glass ceilings immediately. If you cannot be abandoned, go to the nearest safe area.

The actions that the employees in the administrative building should perform are listed below.

- Wait until the earthquake effect passes in the closest sheltered area,
- Stay away from large and heavy materials that can tip over or fall,
- Protect oneself next to the object and hold on to it.

The actions to be performed by employees in areas where there are materials that may fall are listed below.

- Get down to the wall,
- Do not stand on the threshold (the door will slam and you will be injured),
- Do not stand at the bottom of a shelf or any objects that may tip over,
- Protect head and face,
- Avoid windows, glass partitions, mirrors, stoves, bookcases, tall materials and loose structural elements.

The actions that the employees in the open areas of workplace should perform are listed below.

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- Stay put,
- After the earthquake is over, try to go to the nearest assembly area by staying away from windows, buildings, electrical cables and transformers.
- In case of being on the edge of a slope or in a hole, immediately go to a sheltered place.

Actions to be performed in Forklifts, Trucks, Construction Equipment and Special Vehicles are listed below.

- Try to dock the vehicle in a safe place.
- Stop the vehicle from running, apply the parking brake if possible.
- Do not park vehicles or construction equipment on or near the slopes.
- Stay away from manholes and pits.
- Be careful not to block the road.
- Try to park as far away from buildings as possible.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

### 5.3. Torrent and Flood

#### Emergency Response Methods

In the event of flood, the emergency chief within the knowledge of the Emergency Coordinator will manage the necessary coordination. The activities will be supported by Section Chiefs. Power lines will be cut off by the instruction of the section chief. Employees who are stuck will be rescued by the Evacuation team. The first aid team will respond to the injured employees. The accumulated water will be evacuated by the section chiefs.

The actions that the employees should perform are listed below.

- Wait in a safe and elevated position.
- If there are missing personnel in the team, inform the regional supervisor and the emergency chief.
- Assist the teams when needed.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

### 5.4. Stroke of Lightning

#### Emergency Response Methods

In the event of fire in consequence of lightning strike, fire response methods should be carried out. If lightning strikes affect employees, an ambulance should be called, and the relevant authorities should be expected to intervene. The emergency supervisor should be notified about the situation. All personnel who are outdoors during thunderstorms/lightning shall gather in closed buildings (such as administrative building, dormitory) which are safe zones and wait for the rain/lightning to pass.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

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## 5.5. Environmental Pollution and Chemicals

### Emergency Response Methods

In the event of environmental pollution, the Project EHS Manager/emergency chief will be informed. The emergency chief leads the environmental team. The EHS team ensures that in any environmental pollution event that occurs, the spread of the pollutant to the environment (barrier, impregnation, scoop, net or other elements) is avoided. If the chemical cannot be controlled, cleaned or if it burns, it informs the fire department. Hazardous chemicals should be stored outside the working area in areas determined by the main company/where not possible, in areas where safe points will be determined, appropriately labeled and Material Safety Data Sheets (MSDSs) should be provided.

In the event of an incident involving hazardous goods, the following principles must be followed:

- The Emergency Preparedness and Response plan must be followed.
- The incident and its magnitude should be reported by the Emergency Coordinator.
- MSDSs describing the relevant substance should be provided by the Emergency Response Team.
- If it is not immediately possible to forecast the content of the substance, the measures outlined in the MSDSs defining the most hazardous materials stored on site should be taken.
- Ensure that response personnel are wearing appropriate personal protective equipment (PPE).
- The wind direction at the time of the incident should be assessed.
- If there are injured personnel, medical attention should be sought and first aid applied according to the MSDSs.
- Firefighting equipment should comprise MSDS summaries.
- If there is more than one material, the possibility of chemical reaction should be known and the expert should be consulted.
- All sources of ignition and extinguishing must be turned off (open flames, heaters, electric motors).
- The incident should be investigated and any potential hazards to personnel and facility should be evaluated.
- Proper control measures should be started when a gas and oil spill is confirmed to occur such as the equipment must be turned off and work stopped.
- Ensure that all sources of ignition are turned off.
- If control measures are effective and the emergency is resolved, third parties should be notified and the scene protected.
- If control methods are ineffective, steps should be taken to partially and completely evacuate the site.
- Documentation of failures and preparatory actions should be fully reported.
- A trained or authorized person should wear respiratory protection and gas equipment when checking for a gas leak.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

## 5.6. Sabotage and Terrorism

### Emergency Response Methods

In the event of suspected sabotage, the actions should be performed of those in the region are listed below.

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- Notify the Security Unit without spending time,
- Completely follow the instructions of the security supervisor.
- Do not engage in behavior that will endanger everyone's life safety.
- If evacuation has been ordered, go to the nearest assembly area.

The security chief, who receives the information, reports the situation to the Emergency Coordinator. If assistance is requested from law enforcement or related units, they are called to the construction site within the knowledge of the project manager. Suspicious area will be restricted. Entry and exit to the area will be forbidden. Entries and exits to the construction site are prohibited, if necessary, by the decision of the Project Manager.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

## 5.7. Occupational Accidents

### Emergency Response Methods

In case of an occupational accident, the actions to be performed by those in the region are listed below.

- In the event of any occupational accident, personnel having received the necessary training in first aid and are certified by the ministry should apply the first aid requirements.
- Call the ambulance unit on 112 as soon as possible and give the basic observations about the injured (reporting the accident to the medical unit and giving first aid to the accident victim is the main priority).
- Notify the district supervisor and the emergency chief.
- Help, if necessary, when the response team arrives.
- Avoid actions that will delay the intervention of the casualty.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

## 5.8. Traffic Accidents

### Emergency Response Methods

In case of a traffic accident, the actions to be performed in the region are listed below.

- The condition of the passengers, if any, is assessed.
- In the event of any traffic accident, persons having received the necessary training in first aid and are certified by the ministry should apply the first aid requirements.
- Seriously injured persons should not be moved.
- Call the ambulance unit on 112 as soon as possible and give the basic observations about the injured (reporting the accident to the medical unit and giving first aid to the casualty is the main priority).
- If contact cannot be made for assistance, stop passing vehicles and provide the contact numbers of the nearest contact source.
- The situation should be reported to the emergency chief and the regional supervisor.
- Assist, if necessary, when the response team arrives.
- Prevent actions that will delay the intervention of the injured person.
- Do not leave the scene of the accident until first aid reaches the scene of the accident. Provide all relevant details when you call for emergency assistance (place of accident, occurrence of accident, type of assistance required, telephone number).

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During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

## 5.9. Accidental Explosion

### Emergency Response Methods

- Organize the evacuation of building according to foreseen plans and call emergency response coordinator.
- Gather persons and count them.
- Inform the manager.
- Detect risky areas (collapse etc.), and perform initial assessments, and inform the authorities. Form safety perimeter around the risky regions.
- Help the injured and request help from the medical team for intervention. All people in the explosion area shall be kept under observation.
- Detect damages and form an incident report quickly.
  - Check for gas leaks. If hear gas leak sound or odor, open the windows and leave the building.
  - If it is possible, close main gas inlet valve and call expert services.
  - Check for damage in electric wiring. If a fire is realized, worn cables or burning smell, call the electricians working for the Project and request them to turn off the electricity from main breaker.
  - Check for damaged water or sewer pipes. If a damaged pipe is suspected, do not use the bathroom/toilet and taps.
- Activating alarm and keeping all lights open as far as possible.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).

## 5.10. Communicable Disease and Covid-19

### Symptoms and Vulnerable People

Coronavirus symptoms manifest themselves with high fever, cough, sore throat, high and shortness of breath lasting several days following possible headaches. For the elderly people and people with a weakened immune system, the virus can cause much more serious respiratory disease such as pneumonia or bronchitis.

### Protective Measures

- If there is more than one employer, attention should be paid to cooperation and coordination in the measures to be taken against the pandemic and to ensure regular information exchange between employers.
- The opinions of both occupational health and safety professionals and employees should be taken into account during the determination and implementation of the measures to be taken.
- Large work teams should be divided into smaller units and employees should be ensured to comply with social distancing restrictions.
- A work plan should be created in order to maintain the activities at the construction site with the least possible number of employees (shift etc.). It should be ensured that the interaction of the employees with each other is at a minimum level during the working periods, including the breaks.



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- Information posters of the Ministry of Health regarding the measures to be taken regarding the pandemic should be hung legibly in various places at the construction site.
- In case of insufficient ventilation in public areas such as dormitories, dining halls and social facilities, the use of air cleaning devices (in accordance with the capacity  $m^2$ /person number) using carbon filters, electrostatic filters, hepa filters, active oxygen and UV technology should be considered.
- Attention should be paid to maintaining social distance in public areas such as dormitories, dining halls, social facilities and service transportation and transportation, if the volumes are insufficient, in order to maintain social distance in the cafeterias, shift meals should be implemented without disrupting the work plan. In case of insufficient social distance in dormitories, additional volumes should be created. Daily disinfection of public areas should be provided.
- The use of common materials in areas such as dormitories, dining halls and social facilities will be strictly prohibited. The use of single and personal materials (paper towel, disposable cups, liquid soap dispenser, packaged salt/sugar/spices, packaged bread, etc.) will be provided.
- Dining halls and dormitories should be ventilated regularly. It should be ensured that the materials to be used in these areas meet the basic hygiene requirements and that the food needs of the employees are met in an adequate and hygienic manner.
- A thermometer, protective gloves, masks, etc. materials will be available at the construction site, and in cases where suspicious, the authorized personnel, whose measurements are taken, will be taken to an isolated environment without wasting time and information will be given to the health institutions, the construction site chief, and the project manager.
- Cleaning measures will be increased in wet areas such as WC and bathroom, and disinfectant will be kept and used in various areas of the construction site.
- Entries and exits of routine personnel -except those who are required to be present every day- to the construction site will be controlled.
- It should be ensured that employees and visitors are frequently informed about the new coronavirus and essential hygiene rules, and that they act in accordance with the rules in this regard. Except for essential cases, visitors should not be allowed to enter the construction site.
- External public officials and/or managers, including auditors, consultants, material suppliers, etc., will not be admitted to the construction site without masks, gloves and thermometers.
- Shared use of materials such as helmets, protective gloves and work aprons will be strictly prohibited at the construction site.
- By ensuring that new materials arriving at the construction site are stored in special areas to be determined, measures should be taken to prevent entry and exit from these areas and contact with materials, except for authorized employees.
- A sufficient number of garbage cans should be placed in the working environment that does not need to be touched by hand.
- If an employee has had an international trip or contact with someone from abroad in the past two weeks stay at home at least two weeks.
- If an employee has symptoms such as fever, cough, and difficulty in breathing, contacts the nearest healthcare provider for early medical care.
- Hands should be washed frequently with water and soap.
- The mouth and nose should be closed preferably with handkerchief or arm when coughing and sneezing.
- It should be avoided people who look sick, crowded environments as much as possible.
- It should be avoided unprotected contact with farm or wild animals.

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- If an employee has one of the below symptoms:
  - Fever,
  - Difficulty in Breathing,
  - Painful dry cough,
  - Common muscle pain,
  - General exhaustion,
  - Flu, cold-like symptoms,

Employee should contact the nearest healthcare provider for medical assistance and should stay at home at least two weeks.

During an emergency the communication will be maintained among the members specified Emergency Contact List (Appendix-1).



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## 6. TRAINING, REPORTING AND MONITORING

### 6.1. Training

The contractors will provide all employees with basic training on environment, social, occupational health and safety, labour and security issues, including health awareness training and workplace induction training.

Training on emergency preparedness and response will consist of the following elements:

- Induction training
- Job-specific expert training (e.g., excavation operators)
- Training of emergency response teams

These trainings will be provided to provide all personnel with information about business continuity and emergency response and planning. Also, during the construction and rehabilitation phases, emergency exercises related to emergencies such as earthquake, fire, etc. will be planned and implemented. Events such as a work accident, hazardous situation, near-miss in the field will be recorded regularly and the training program will be revised in the light of this information.

### 6.2. Reporting and Monitoring

An internal reporting system will be designed to ensure a timely feedback procedure incorporating results of monitoring into management practices. During construction and rehabilitation phases; all drills, audits and trainings will be reported in a weekly manner to AYGM by the contractors.

WB, AIIB and AYGM will be promptly notified of any incident or accident related to the Project which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers including but not limited to; incidents and accidents encountered during construction works, environmental spills, etc.

Sufficient detail will be provided regarding the incident or accident, findings of the Root Cause Analysis (RCA), indicating immediate measures or corrective actions taken or that are planned to be taken to address it, compensation paid, and any information provided by any contractor and supervision consultant, as appropriate. It will be ensured that the incident report is in line with the World Bank's Environment and Social Incidence Response Toolkit (ESIRT). Subsequently, as per the Banks' request, a report on the incident or accident and proposal regarding any measures to prevent its recurrence will be prepared.

EPRP monitoring will ensure an early warning for emerging risks, which will enable early actions to be taken to mitigate the impacts of such risks. The EPRP, and the Contractors' site-specific management plans/procedures will be reviewed and revised periodically and if necessary, updates will be made as the Project proceeds. Validity of indicators will also be checked on a regular basis, and as required with the availability of new information.

The main monitoring activities will focus on ensuring compliance with the mitigation measures and management controls described and key performance indicators identified within the scope of this EPRP (see Table 1).

Moreover, the reporting requirements are specified as below:

**Regular Monitoring Reports:** The project contractors to submit regular monitoring reports detailing the results of geotechnical monitoring activities, including slope stability

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assessments, ground movement measurements, and soil moisture data. These reports should be submitted on a weekly or monthly basis, depending on the project phase and level of risk.

**Incident Reports:** In the event of a landslide or other emergency situation, mandate the immediate reporting of incidents to the project management team. Incident reports should include details such as the location, extent, and impact of the landslide, as well as any injuries or damage to infrastructure. Incident reports must be submitted promptly to facilitate timely response and mitigation efforts.

Table 1. Monitoring Table of the Emergency Preparedness and Response Management Plan

ID	Area of Concern	Key Performance Indicator (KPI)	Monitoring Location	Monitoring Method	Monitoring Frequency	Monitoring Responsibility
EPRP-1	Number of Non-conformities in this Plan	Zero non-conformity	All sections / Departments	Inspections	Continuously	HS Unit
EPRP-2	Number of emergency drills	Completing at least 3 annual drills and ensuring they are carried out regularly	All sections / Departments	Drill records	Biannually	HS Unit
EPRP-3	Having appropriate spill response equipment at project site	Providing at least one spill kit at waste storage and chemical storage areas	Entire project area	Inspections	Continuously	HS Unit
EPRP-4	Number of grievances related to Emergency Management	Zero grievances	All sections / Departments	Grievance records	Continuously	HS Unit Human Resources
EPRP-5	Implementation of the Emergency Preparedness Action Plan	No grievances Maximum 3 near misses in a month	All sections / Departments	Inspections	Continuously	HS Unit
EPRP-6	Informative Training/Meeting records on emergency response	All personnel to attend the EPRP training at least once in a year	All sections / Departments	Records and approval documents related to trainings	Quarterly	HS Unit
EPRP-7	Establishing Emergency announcement system	Designated system before the construction phase	Entire project area	Inspections	Throughout the lifecycle of project	HS Unit
EPRP-8	Renewal of Emergency Action Plan within the scope of Occupational Health and Safety Law No. 6331	Updating EPRP annually	Entire project area	Inspections	Depending on hazard classes of the activities	HS Unit
EPRP-9	Keeping the Emergency Exit Evacuation Map up to date and displaying it on emergency boards	All personnel are informed about the Emergency Exit Evacuation Map during the EPRP training	Entire project area	Inspections	Continuously	HS Unit
EPRP-10	Creating Emergency Response Team	Emergency Response Team is established and informed quarterly	Entire project area	Inspections	Throughout the lifecycle of project	HS Unit
EPRP-11	Records on communications with related authorities on potential/actual emergencies	Quarterly engagement with local authorities	Entire project area and area of influence	Meeting records	Quarterly	HS Unit Community Liaison Officer

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This EPRP is a living document, and the responsibilities, procedures and actions for compliances shall be updated as required; for instance, in case of a change in the applicable legislative requirements and standards or process design. In general, the expected review and update frequency is determined as at least once in a year. However, it should be noted that in case of an additional requirement without waiting for the predetermined frequency, EHS Team and Social Team shall review and if necessary, as per the evaluation, update the Plan right after the emergency situation.

It is the responsibility of the EHS Team and Social Team and contractors/sub-contractors' EHS and Social related personnel to be fully aware of its contents, to provide relevant training to staff and to ensure that procedures are being implemented to achieve compliance with this Plan.

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## 7. REFERENCES

- Environmental and Social Impact Assessment Report (CNR-ETMIC-ESIA-001)
- Environmental and Social Management Plan (CNR-ETMIC-ESMP-001)
- Traffic Management Plan (CNR-ETMIC-TMP-001)
- Community Health and Safety Management Plan (CNR-ETMIC-CHSMP-001)
- Pollution Prevention and Waste Management Plan (CR-ETMIC-PPWMP-001)
- Biodiversity Management Plan (CNR-ETMIC-BMP-001)
- Occupational, Health and Safety Management Plan (CNR-ETMIC-OHSMP-001)



## APPENDIX-1 EMERGENCY CONTACT LIST

EMERGENCY COMMUNICATIONS		
CONTACT	TELEPHONE NUMBER	RADIO CHANNEL
AMBULANCE	112	
FIRE BRIGADE	112	
EMERGENCY COORDINATOR (MANAGER)	PROJECT MANAGER	
EMERGENCY CHIEF	PROJECT EHS MANAGER	

EXTINGUISHING TEAM				
NO	NAME	SIGNATURE	TEAM MEMBER	TELEPHONE NUMBER
1			TEAM LEADER	
2			TEAM LEADER ASS.	

RESCUE TEAM				
NO	NAME	SIGNATURE	TEAM MEMBER	TELEPHONE NUMBER
1			TEAM LEADER	
2			TEAM LEADER ASS.	

PROTECTION TEAM				
NO	NAME	SIGNATURE	TEAM MEMBER	TELEPHONE NUMBER
1			TEAM LEADER	
2			TEAM LEADER ASS.	

FIRST AID TEAM				
NO	NAME	SIGNATURE	TEAM MEMBER	TELEPHONE NUMBER
1			TEAM LEADER	
2			TEAM LEADER ASS.	

