REPUBLIC OF TURKEY
MINISTRY OF TRANSPORT
AND INFRASTRUCTURE

AYGM
Altyapı Yatırımları Genel Müdürlüğü

ÇINAR®
ENGINEERING
CONSULTANCY INC.

DİVRİĞİ-KARS-GEORGIA BORDER RAILWAY LINE REHABILITATION AND MODERNIZATION PROJECT

COMMUNITY HEALTH AND SAFETY MANAGEMENT PLAN

CNR-ETMIC-CHSMP-001

(Final)

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ABBREVIATIONS & ACRONYMS

AIIB	Asian Infrastructure Investment Bank
AYGM	Directorate General of Infrastructure Investments
BMP	Biodiversity Management Plan
BTK	Baku-Tbilisi-Kars
CCTV	Closed-Circuit Security Cameras
CHMP	Cultural Heritage Management Plan
CHSMP	Community Health and Safety Management Plan
ÇINAR	Çınar Engineering Consultancy Inc.
Contractor	Expert Firms responsible for the construction of the Project on behalf of AYGM
CTC	Centralized Traffic Control
DAS	Distributed Acoustic Detection
EHS	Environmental, Health and Safety
EPRP	Emergency Preparedness and Response Plan
ESF	Environmental and Social Framework
ESIRT	Environment and Social Incidence Response Toolkit
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
ETMIC	Easter Türkiye Middle Corridor Railway Development Project
GBV	Gender-Based Violence
GIIP	Good International Industry Practice
GRM	Grievance Redress Mechanism
HS	Health and Safety
ILO	International Labor Organization
IsDB	Islamic Development Bank
KPI	Key Performance Indicator
LMP	Labor Management Procedure
OHS	Occupational Health and Safety
PPWMP	Pollution Prevention and Waste Management Plan
PTC	Positive Train Control
RCA	Root Cause Analysis
RF	Resettlement Framework
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
TMP	Traffic Management Plan
UN	United Nations
WB	World Bank
WBG	World Bank Group

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.

This CHSMP aims to minimize the project's impact on the safety and security of local communities during land preparation, construction, rehabilitation, and operation activities. The provided requirements will guide the development of a CHSMP for these project phases.

Enhancing safety awareness within the communities affected by the construction and rehabilitation activities should help reduce the risk of accidents, incidents and near-misses.

Mitigation measures addressing impacts on human health and safety are also detailed in various Management Plans which have been prepared within the scope of the project, such as the EPRP, TMP, PPWMP. The primary standard mitigation measures outlined below will be applied with a specific focus on land preparation, construction and rehabilitation:

CHSMP is prepared to:

1. Prevent or limit any adverse impact on the safety and security of local residents and passengers benefiting from railway services throughout all project phases by identifying necessary precautions/ corrective and preventive actions,
2. Ensure that safeguarding of personnel and property is conducted in an appropriate manner that avoids or limits risks to the community's safety and security,
3. Promote safety awareness within the local community and prevent an increase in diseases or health issues caused by project activities, especially during the construction and rehabilitation phases.

1.1. Scope

The CHSMP encompasses the scheduled land preparation, construction and rehabilitation activities of the project.

The rehabilitation of the railway between Divriği-Kars-Georgia Border will include a variety of activities to be carried out by the construction contractors and sub-contractors. The technical works of the project scope are delivery of 143 km of new standard gauge railway line to replace the existing line, installation of signaling, telecommunication, and electrification systems along the entire 667 km length of the corridor and construction/rehabilitation of sidings, bridges, terminals, stations, and other facilities.

This CHSMP is developed to guide AYGM's employees, contractors, and subcontractors. The Contractors are also obligated to integrate CHSMP requirements into their respective management plans. The roles and responsibilities pertaining to the implementation of the CHSMP are outlined in Chapter 2.

1.2. Performance Indicators

Below are the key performance indicators (KPI) for the implementation of the CHSMP, and corresponding indicators will also be integrated into the Project's Environment, Health, and Safety (EHS) procedures and plans:

Table 1. Key Performance Indicators for EHS

Key Performance Indicator	Target	Timeframe	Record	Responsibility
Community safety activities / trainings	Ensuring that all relevant personnel participate in training	Monthly	Training Records	Contractor
Traffic trainings provided to workers	100% participation rate	Twice a year	Training Records	Contractor

Key Performance Indicator	Target	Timeframe	Record	Responsibility
Number of traffic accidents and incidents	Zero accidents to be recorded in a year	Continuously	HS Reports	Contractor
Number of work accidents and incidents	Zero accidents to be recorded in a year	Continuously	HS Reports	Contractor
Number of complaints received	Gradual reduction and/or zero complaints	Continuously	Grievance Records	Contractor
Field reports on the CHSMP implementation	Zero non-compliances	Monthly	Monitoring Records	Contractor
Consultation with local people and local health officials	Establishing and maintaining effective communication mechanisms	Whenever required	Consultation records	Contractor

These performance indicators are crucial for monitoring the effectiveness of the CHSMP and ensuring that health, safety and security standards are met throughout the project's lifecycle.

2. ROLES AND RESPONSIBILITIES

Contractors are responsible for meeting the requirements outlined in this CHSMP by customizing them to suit their specific activities. Each contractor must develop a site-specific CHSMP and accompanying procedures that align with AYGM policy and provide a clear framework for implementing the requirements outlined in this plan.

Before commencing any project activities, the Contractor is obligated to submit their CHSMP to AYGM for approval. No project activities will commence until AYGM has granted approval for the management plans and procedures.

Furthermore, it is the Contractors' responsibility to regularly review and update their CHSMP as the project's needs evolve or as more detailed requirements become apparent. This ongoing commitment to refinement ensures that the CHSMP remains effective and responsive to changing circumstances throughout the project's duration.

The responsibilities and roles in the CHSMP are detailed as follows:

AYGM Responsibilities:

- Develop and maintain project-specific community health and safety requirements and effectively communicate them to contractors.
- Supervise and control the implementation of the CHSMP and health, safety and security procedures by contractors through activities by means of periodic audits.
- Adhere to the Voluntary Principles on Security and Human Rights.

Contractor Responsibilities:

- Develop, implement, and maintain a project specific CHSMP that meets or exceeds the minimum requirements and precautions outlined in the CHSMP provided by AYGM.
- Ensure that all employees are informed and trained on the CHSMP as well as health, safety and security procedures.
- Inspect and evaluate the performance of all subcontractors to ensure compliance with the CHSMP, the project specific CHSMP, and associated procedures.
- Generate reports with performance indicators to demonstrate the successful implementation of the CHSMP and share these reports with AYGM.
- Establish communication network with local authorities for specific project activities, such as crossings and blasting.
- Conduct medical surveillance among its workers and ensure that medical examinations are conducted for workers involved in health-critical activities.
- Implement measures for the prevention of Gender-Based Violence (GBV), including conducting awareness sessions for local communities on GBV prevention, establishing a Code of Conduct for workers, providing training to workers on GBV, Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH) prohibition, and implementing a Grievance Redress Mechanism (GRM) to address GBV complaints.

3. LEGAL FRAMEWORK/PROJECT STANDARDS

3.1. National Legislation

The project operates within a comprehensive legal framework aimed at safeguarding environmental, health, and safety standards. Key regulations governing environmental aspects include the Regulation on Environmental Impact Assessment (29.07.2022, 31907), which ensures thorough assessment of project impacts on the environment. Additionally, the Regulation on Environmental Permit and License (10.09.2014, 29115) mandates obtaining necessary permits for construction and operation, ensuring compliance with environmental standards.

The main national legislation that the project is subject to on community health and safety is as follows:

- Communiqué on Major Accident Prevention Policy Document (Official Gazette 29435, 4 August 2015).
- Implementing Regulation on the Prevention and Mitigation of the Major Industrial Accidents (Official Gazette 28867, 30 December 2013).

3.2. International Standards

As the World Bank (WB), Asian Infrastructure Investment Bank (AIIB) and Islamic Development Bank (IsDB) 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
- 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, AIIB 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

Other international standards and guidelines applicable to this CHSMP are listed below:

- United Nations (UN) Guiding Principles on Business and Human Rights
- Recommendation of the Council on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence (The "Common Approaches") (2016)
- International Labor Organization (ILO) Conventions

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

3.3. Gap Analysis

Table 2 shows a gap analysis that identifies the requirements for WB ESS4, the scale the national ES legislation covers, gaps and recommended actions/measures to address these gaps in the current project, specifically for CHS.

Table 2. Gap Analysis

ESS	Requirements	Coverage by National Legislation	Identified Gaps / Actions to Bridge the Gaps
ESS4: Community Health and Safety	Protect the health and safety of communities living near project sites. Identify potential health and safety risks associated with project activities. Develop measures to minimize risks and respond to emergencies.	Turkish Occupational Health and Safety Law addresses workplace safety.	In Turkish national legislation, the general principles of community health, safety and security are fragmented under different regulations. The general principles are like ESS4. However, social issues such as labor influx, gender-based violence risks are more prominent under the ESS4 along with cumulative assessment and communication activities with stakeholders. There is neither identified risk to use force of security personnel nor mitigation measures to prevent by considering community, health, and safety. Community health assessments to identify potential risks from project activities were conducted. The community health and safety management plan to mitigate identified risks was prepared. *Security personnel* • Screening and Training: Security personnel should be vetted for past behavior and trained to respect human rights and avoid escalation of violence. • Code of Conduct: Security forces must follow a code of conduct that protects community members and upholds local laws. • Community Engagement: The community should be informed about the security measures, with mechanisms in place to address concerns • Monitoring and Accountability: Systems should be in place to monitor security personnel and respond to any grievances or incidents.

4. MITIGATION MEASURES AND MANAGEMENT CONTROLS

4.1. General Requirements

The following mitigation measures represent the minimum requirements to be adhered to during the land preparation, construction and rehabilitation phases of the project:

- ***Training Needs Assessment:*** Contractors will identify training needs and develop training plans for project staff and, if necessary, local residents.
- ***Security Personnel:*** Security personnel will be employed to ensure the safety and security of the work areas, and a Project-specific Security Management Plan will be created and implemented by the Contractors.
- ***Health Screening:*** Workers will undergo health screenings after signing employment contracts, and periodic health checks will be conducted.
- ***Random Drug and Alcohol Testing:*** Workers will be subjected to random drug and alcohol tests, with results recorded and monitored.
- ***Health Awareness Training:*** Workers will receive regular health awareness training throughout their employment.
- ***Emergency Facilities:*** Campsites will have facilities for emergency interventions and routine health procedures.
- ***Management of Labour Camps***: Managing labor camps for community health and safety requires providing adequate housing, clean water, sanitation, waste management, and pest control. Compliance with health and safety regulations, access to healthcare, and promoting a supportive community environment are essential. Regular monitoring ensures adherence to these requirements and promptly addresses any issues to protect workers' well-being.
- ***Security Personnel***: providing secure accommodation, access control measures, and adequate lighting. Additionally, it requires implementing protocols for emergency response, training on conflict resolution and de-escalation techniques, and access to communication devices for rapid response. Regular security assessments and monitoring help identify and address any potential security risks promptly, contributing to a safe and secure environment for all personnel.
- ***Waste Management:*** All waste will be segregated, recyclable materials will be given to licensed recycling companies, and non-recyclable waste and hazardous waste will be transported and disposed of in compliance with legislation. The requirements specified in the Pollution Prevention and Waste Management Plan will be followed.
- ***Medical Waste Disposal:*** Medical wastes will be disposed of in accordance with the Regulation on Control of Medical Wastes.
- ***Food Safety:*** Food companies will adhere to national legislation and international standards for storing, preparing, and serving food, with regular inspections and reporting of non-conformities.
- ***Disease Prevention:*** Measures will be implemented to prevent diseases that can be transmitted from animals to humans or spreading among humans.
- ***Safe Passages:*** Passages on slopes and ditches will be made safe, recognizable, fenced, and illuminated.
- ***Local Community Training:*** Training will be provided to local residents to raise awareness of potential risks arising from project activities, such as increased traffic and construction areas. The trainings will be given in nearby settlements by the Contractor under the provision pf AYGM. The stakeholders specified in SEP will be subject to these trainings which includes the vulnerable groups as well.
- ***Traffic Awareness:*** Under the Traffic Management Plan, training will be organized to raise traffic awareness among adults and children in surrounding settlements. The trainings will be given in nearby settlements by the Contractor under the provision pf

AYGM. The stakeholders specified in SEP will be subject to these trainings which includes the vulnerable groups as well.

- ***Night Transportation Limitations:*** Night transportation activities on public roads will be limited to reduce traffic accidents.
- ***Driver Training:*** All drivers will adhere to Project driving rules, with necessary training provided.
- ***Emissions Reduction:*** All pollutant emissions will conform to national legislation and international standards, with a focus on minimizing dust emissions, especially on unpaved roads. In addition, adverse impacts origination from vehicle-related emissions on air quality will be minimized by ensuring that periodic maintenance of the project vehicles as well as equipment will be carried out. The requirements specified in the Pollution Prevention and Waste Management Plan will be followed.
- ***Noise and Vibration Reduction:*** Implementation of mitigation measures such as use of noise barriers, selection of equipment that creates less noise via mufflers, the use of site hoardings, non-vibratory construction equipment and limiting night-time working will minimize noise and vibration impacts. The requirements specified in the Pollution Prevention Plan will be followed.
- ***Protection of Water Resources and Soil Quality:*** Within the scope of the project, necessary precautions will be taken in order to prevent any untreated wastewater discharges into receiving environment and to avoid pollution related to spill/leakage. The requirements specified in the Pollution Prevention and Waste Management Plan will be followed.
- ***Conservation of Biodiversity:*** Implementation of the requirements in Biodiversity Management Plan will avoid and/or minimize risks associated with ecological receptors.
- ***Stakeholder Engagement:*** Local authorities and residents will be informed about project-related impacts on human health and safety during pre-construction meetings and stakeholder engagement activities. Opinions from all parties will be taken. The requirements specified in the Stakeholder Engagement Plan will be followed.
- ***Grievance Mechanism:*** A "Grievance Mechanism" will be established to officially convey concerns, problems, and complaints from local residents and facilitate dispute resolution.
- ***GBV/SEA/SH Prevention:*** Prevention measures for Gender-Based Violence (GBV), Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH) will include awareness sessions for project workers and local communities, adherence to a Code of Conduct by workers, informing local communities about the Code of Conduct, implementing a Grievance Redress Mechanism (GRM) for GBV complaints, and providing information about existing GBV service providers. There will be a special channel for reporting SH/SEA grievances (for anonymous complaints as well) , in order to ensure confidentiality and grievance handling by specially trained staff

4.2. Site Specific Requirements

The following issues will need to be addressed at site specifically after the finalization of further studies as also mentioned below:

4.2.1. Access to Health Facilities

During the construction and rehabilitation phases, the Contractors will identify settlements where healthcare services are deemed more critical. This assessment takes into account factors such as the absence of healthcare facilities, long distances to reach existing facilities, or the presence of an elderly population. In these identified areas, the Contractors will collaborate with local health authorities to ensure that access to healthcare services is not restricted.

To address this issue, the Contractors may implement additional solutions, such as:

Organized Transportation: Providing organized transportation services to facilitate access to healthcare facilities for residents in remote or underserved areas.

Increased Visiting Doctors: Arranging for an increased presence of visiting doctors during specific periods, ensuring that residents have regular access to medical care even in areas where healthcare facilities are limited.

By taking these measures, the Contractors aims to safeguard the health and well-being of the local population during the construction phase of the project.

4.2.2. Road Accident Risks

Given the anticipation of heavy traffic in critical areas surrounding the entire work area, particularly around specific project components like camp sites, excavation and filling areas, and material stockpiles, additional mitigation measures will be implemented to enhance road safety.

These measures include:

- Traffic Management Systems: The installation of traffic lights, deceleration systems, and warning signals at roads and junctions that will experience heavy construction traffic. These systems will help regulate and control traffic flow, reducing the risk of accidents.
- Engagement with Local Authorities: Contractors will engage with local authorities to discuss and provide information about available solutions for improving road safety in these regions. Collaboration with local authorities is essential to ensure the implementation of effective measures.
- Driver Training: Drivers involved in the project will receive comprehensive training. This training will include specific information about critical areas prone to road accidents. Initial training sessions will be followed by routine training to reinforce safety awareness among all drivers.

By implementing these additional mitigation measures and ensuring that both drivers and local authorities are informed and engaged, the project aims to minimize road accident risks in areas with heavy construction traffic, thereby enhancing overall safety.

4.2.3. Trespassing Accidents

To prevent accidents stemming from the presence of construction sites and ongoing construction activities, the Contractors will take the following measures:

- Identification of Residential Areas: The Contractor will identify all residential areas in close proximity to the Project area. This assessment will help pinpoint locations where there is a higher risk of trespassing and potential accidents.
- Fencing and Warning Signs: In areas identified as having a higher risk of trespassing and accidental events, the Contractors will install additional fencing and warning signs. These physical barriers and visual cues will serve as deterrents and reminders to individuals to stay out of hazardous construction zones.
- Stakeholder Engagement: The local population will be actively engaged through stakeholder engagement activities. This engagement will include informing them about ongoing construction activities, potential risks, and the importance of avoiding restricted areas. Effective communication with the local community helps raise awareness and promotes safety and security.

By implementing these measures, the Contractors aim to reduce the risks associated with trespassing accidents and enhance the safety of both construction workers and the local community in the vicinity of the Project area.

4.2.4. Communicable Disease

To address community health concerns and mitigate the transmission of communicable diseases due to the influx of workers, the Contractors will undertake the following steps:

- Epidemiological Studies: The 3rd party ES Consultant will conduct epidemiological studies based on available information to assess the incidence of communicable diseases in the affected provinces. These studies will provide valuable data to understand the health risks and prevalence of such diseases in the project area.
- Collaboration with Local Health Authorities: The AYGM will collaborate closely with local health authorities to develop and implement appropriate strategies and plans to prevent the transmission of communicable diseases. This partnership will ensure that the response aligns with local community health priorities and guidelines.
- Preventive Measures: Based on the findings of the epidemiological studies and in consultation with local health authorities, the AYGM will implement a range of preventive measures. These may include:
    - Immunization campaigns for workers,
    - Health education and awareness programs,
    - Implementation of hygiene and sanitation protocols at work sites and worker accommodations,
    - Regular health screenings and medical examinations for workers,
    - Monitoring and reporting of any suspected cases of communicable diseases.
- Continuous Monitoring: The 3rd party ES Consultant will continuously monitor the community health situation in the affected provinces and adjust preventive measures as needed based on the evolving epidemiological data and guidance from local health authorities.

By conducting epidemiological studies and collaborating with local health authorities, the Contractors aim to proactively address the risk of communicable diseases and ensure the health and well-being of both workers and the local community.

4.2.5. Safety and Disturbance to Sensitive Receptors in Surroundings of Construction and Rehabilitation Activities

To mitigate safety and security hazards and minimize disruption to sensitive receptors (schools, hospitals, day care centers, residential areas etc.) in the vicinity of construction activities, the Contractors will undertake the following steps:

- Identification of Sensitive Facilities: The Contractors will identify all sensitive facilities located within the project area. This comprehensive assessment will help pinpoint sensitive receptors that may be affected by the construction activities.
- Collaboration with Local Authorities: The Contractors will engage in discussions and collaboration with local authorities, including school administrations and relevant education departments. The goal is to agree upon and implement strategies that achieve two primary objectives:
    - Reduce disturbance to routine daily activities: The Contractors will work with local authorities to develop plans that minimize disruption to daily activities. This may involve scheduling construction activities during non-school hours, altering construction methods to minimize noise and disturbance, or rerouting traffic to ensure student safety during arrival and departure times.
    - Enhance Safety for local community: Safety measures will be put in place to protect project affected persons. This may include the installation of physical barriers, warning signs, and designated safe zones to prevent accidents and injuries.

By working collaboratively with local authorities and school administrations, the Contractors aim to ensure that construction activities are carried out in a manner that prioritizes the safety and security of local population (especially children, elderly and others who are at a heightened risk of negative health outcomes) in the surrounding areas.

4.2.6. General Railway Operational Security

This management plan was primarily developed for the construction and rehabilitation phases; however, it also includes general requirements for railway security to provide a framework for the site-specific CHSMP to be created by Turkish State Railways. Here are the key railway security requirements outlined in the plan:

- Positive Train Control (PTC) System: Implement railway operational safety procedures, including the use of a PTC system. The PTC system is aimed at reducing the likelihood of train collisions. This advanced system helps enhance railway safety by monitoring train movements, enforcing speed limits, and taking corrective actions if necessary.
- Automatic Rail Trusses: In cases where the full PTC system may not be practical or available, consider the use of automatic rail trusses. These trusses are particularly relevant in areas where manual trusses are present. They enable reporting when a train transitions from the main line to a side road in the absence of signaling. This information should be communicated to all employees and train officers on board the train to ensure safe operations.
- Distributed Acoustic Sensing (DAS): DAS involves the monitoring and safety enhancement of railway systems by detecting acoustic events, vibrations, and other relevant parameters along railway tracks and associated infrastructure. It allows the warning system to detect factors such as stone/rock falls, landslides and avalanches that may occur on the train route.
- Enclosing with Wire Fence: Wire fences prevent people, vehicles, or animals from getting close to or entering the railway. This helps prevent accidents and hazardous situations, thus ensuring railway safety and environmental protection.
- Regular Inspection and Maintenance: Prioritize regular inspection and maintenance of railway lines and facilities to ensure that they meet national and international railway safety standards. These inspections and maintenance activities are essential to uphold the safety and integrity of the railway infrastructure.
- General Safety Management Program: Implement a comprehensive safety management program that is equivalent to internationally recognized railway safety programs. This program should encompass various aspects of railway safety, including but not limited to, track maintenance, signal systems, communication protocols, and emergency response procedures. Adhering to internationally recognized safety standards will help ensure the overall safety of railway operations.

By including these railway security requirements within the management plan, Turkish State Railways demonstrates its commitment to maintaining a high level of safety and security in railway operations, ultimately protecting both railway personnel and the general public.

4.2.7. Level Crossing Security

To maintain the security and safety of level crossings, regular inspection and maintenance of automatic doors and establishment of new controlled mechanical barrier are essential. Here are the key steps to ensure the proper installation and smooth operation of automatic doors at all level crossings:

- Scheduled Inspections: Develop a schedule for routine inspections of automatic doors at all level crossings. These inspections should be carried out at specified intervals to ensure that the doors are functioning correctly.

- Qualified Personnel: Assign qualified and trained personnel or technicians to conduct these inspections. They should possess the necessary expertise to identify and address any issues related to the automatic doors.
- Functional Testing: During inspections, perform comprehensive functional testing of the automatic doors. This includes assessing their responsiveness to various scenarios, such as detecting approaching trains, responding to emergency stop signals, and ensuring timely closure and reopening.
- Visual Inspections: Conduct visual inspections to detect any signs of wear and tear, damage, or malfunctions in the automatic doors. Look for issues such as misalignment, damaged sensors, broken components, or corrosion.
- Cleaning and Lubrication: As part of regular maintenance, clean and lubricate the moving parts of the automatic doors as needed. Proper maintenance can prevent issues related to friction, rust, and other factors that could impede their smooth operation.
- Repairs and Replacements: If any issues or defects are identified during inspections, address them promptly with repairs or replacements as necessary. Defective components should be replaced with high-quality and compatible parts.

These measures that will reduce the risk of this accident should be implemented to ensure the safety and security of level crossings and to ensure the smooth operation of railway traffic while protecting road users.

4.2.8. Pedestrian and Passenger Safety

To enhance pedestrian and passenger safety around railway areas, including stations, level crossings and tunnels, several measures will be implemented:

- Clear Warning Signs: Prominently place clear and distinctive warning signs at entry points, including railway stations and level crossings. These signs will alert pedestrians and passengers to the potential dangers of railway areas and remind them to exercise caution.
- Installation of Barriers: Install fences or other barriers at the ends of railway stations and in other critical areas to prevent unauthorized access to the tracks. These physical barriers will help deter individuals from venturing onto the rails.
- Pedestrian and Passenger Training: Conduct training sessions, especially for local youth, emphasizing the importance of not entering railway areas without permission. These educational programs will raise awareness about the risks associated with railway tracks.
- Safe Routes: Ensure that designated routes for pedestrians and passengers are clearly marked, well-lit, and easily accessible. These safe routes will guide people away from hazardous areas and provide a secure path for their movement.
- Closed-Circuit Security Cameras (CCTV): Establish CCTV and monitoring systems at railway stations and other high-risk locations. These systems will allow continuous surveillance of railway areas, helping to deter intruders and identify any unauthorized access.
- Early Warning Systems: It should be integrated into the system in order to prevent possible incidents/accidents by allowing the early detection of natural disasters such as stone/rock falls, landslides and avalanches.
- Emergency Announcement Systems and Uninterrupted Passenger Information System: Implement an emergency announcement system to prevent violations and unauthorized access in areas where intruders are frequent. This system will broadcast warnings and safety messages to discourage unsafe behaviour.
- Provide Tunnel Safety/Security: Due to precipitation and water content, water freezing occurs in the tunnel and this causes serious problems in horizontal clearance/gauge. Relevant mitigation measures, including drainage issue, should be taken.

By implementing these measures, railway authorities aim to enhance pedestrian and passenger safety and reduce the risks associated with train mobility/traffic. These initiatives will not only protect pedestrians and passengers but also contribute to the overall safety and security of railway operations.

5. TRAINING, REPORTING AND MONITORING

5.1. Training

All employees (including contractor and subcontractor staff) will be provided with basic training on social, environmental, community and occupational health and safety, labor and security issues. The status of the project area will be checked daily by the Environmental and Social Teams, and in case a potential training need is determined, a new training program will be created and training will be provided to the staff. All employees will be informed about the requirements of this management plan. During the construction, rehabilitation and operation periods, the trainings will initially be given before starting work and will be repeated at specified intervals. In addition, all employees will undergo induction training covering Code of Conduct and awareness raising re SH/SEA. These trainings will be provided for newly recruited workers.

5.2. Reporting

Daily inspections will be carried out under the coordination of the environmental and social team formed by the Contractors.

Regular monitoring and audit activities will be carried out in order to ensure the effectiveness of the implementation of this Community Health and Safety Management Plan. Monitoring activities are presented in Table 3.

Table 3. Monitoring Activities

ID	Topic/Key Performance Indicators	Target	Method	Frequency
CHSMP-1	Non-compliances against Project Standards and this CHSMP	Gradual decrease and achieving zero non-compliances	Monitoring/Inspection records	Continuously
CHSMP-2	Community safety activities / trainings	Increase in participation rate in training	Training records	Periodically
CHSMP-3	Traffic accidents	Achieving zero traffic accidents	Health and Safety reports	Continuously
CHSMP-4	Work accidents	Achieving zero work accidents	Health and Safety reports	Continuously
CHSMP-5	Social incidents	Gradual decrease and achieving zero social incidents/disputes	Monitoring/Inspection records and Grievance records	Continuously
CHSMP-6	Grievance	Gradual decrease and achieving zero grievance	Grievance records	Continuously

Any incident detected during these inspections will be recorded and reported monthly. The 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/rehabilitation 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 Bank's request, a report on the incident or accident and

proposal regarding any measures to prevent its recurrence will be prepared. All events and nonconformities will be reported according to the project standards.

Monitoring activities for each Community Health and Safety issue will be detailed in management/implementation plans and procedures to be prepared by the Contractors prior to the onset of the land preparation, construction and rehabilitation phases of the Project. Monitoring activities will be designed to target specific topics to meet site-specific requirements in line with the key performance indicators in this Plan.

6. 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)
- Emergency Preparedness and Response Plan (CNR-ETMIC-EPRP-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)