

TÜMAD

MADENCİLİK SANAYİ VE TİCARET A.Ş.



ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS

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**ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM
FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS**

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			Document No: TMD_EYS_PLN.004	Rev. 0

This document is updated and controlled, and the documents without control stamp are invalid.

REVISION HISTORY

Item/Paragraph	Revision	Revision Description	Date
-	0	First Issue	

TABLE OF CONTENTS

ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	2
REVISION HISTORY	3
TABLE OF CONTENTS	4
ABBREVIATIONS AND DEFINITIONS	5
1 INTRODUCTION	6
2 PURPOSE	6
3 SCOPE.....	7
3.1 ESMS Framework Related Documents	7
4 PROJECT STANDARDS	7
5 ORGANISATION	8
5.1 Organizational Chart of TÜMAD General Directorate	8
5.2 Organizational Chart of TÜMAD ESMS and OHS	9
6 ROLES AND RESPONSIBILITIES	9
7 IMPLEMENTATION	13
7.1 Overall Approach	13
7.2 TÜMAD ESMS Overview	14
7.3 TÜMAD ESMS Components	15
7.3.1 Component 1 - Policy and Compliance	17
7.3.2 Component 2 - Risk Assessment and Management	18
7.3.3 Component 3 - Target and Objective Setting	18
7.3.4 Component 4 - Organization, Liabilities and Responsibilities	19
7.3.5 Component 5 - Competence and Training.....	19
7.3.6 Component 6 - Communication and Consultation	20
7.3.7 Component 7 - Change Management	23
7.3.8 Component 8 - Operational Control of OHS, Environmental and Community Relations IMS	23
7.3.9 Component 9 - Emergency Preparedness.....	23
7.3.10 Component 10 - Supplier and Contractor Management.....	24
7.3.11 Component 11 - Monitoring and Assessment	24
7.3.12 Component 12 - Non-conformity, Incident and Action Management	26
7.3.13 Component 13 - Management Review.....	26
7.4 Review and Update of this Plan.....	27
8 MONITORING	28
9 REPORTING.....	78
APPENDIX -1 ESMS FRAMEWORK RELATED DOCUMENTS	79
APPENDIX -2 TÜMAD POLICIES.....	82

LIST OF TABLES

Table 1: Roles and Responsibilities	9
Table 2: PDCA cycle used for the TÜMAD ESMS.....	15
Table 3- A Summary of Monitoring and Management Plan Details for both the Lapseki and Ivrendi Projects	28
Table 4: Monitoring Measures from Health and Safety Management Plan	55
Table 5: Monitoring Measures from Biodiversity Action Plan	60
Table 6: Key Performance Indicators.....	64

LIST OF FIGURES

Figure 1: TÜMAD General Directorate Organizational Chart.....	8
Figure 2: Organizational Chart of TÜMAD ESMS and OHS MS	9
Figure 3: Plan-Do-Check-Act	14
Figure 4 The ESMS Hierarchy.....	15

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	4/90

ABBREVIATIONS AND DEFINITIONS

Project(s)	: The Lapseki and İvrindi Gold and Silver Mine and Processing Projects
TÜMAD	: TÜMAD Madencilik San. ve Tic. A.Ş.
CR	: Community Relations
E	: Environment
E&S	: Environmental and Social
EBRD	: European Bank for Reconstruction and Development
EIA	: Environmental Impact Assessment
ESMS	: Environmental and Social Management System
ESMSF	: Environmental and Social Management System Framework
FAI	: First Aid Injury
ICMM	: International Council on Mining and Metals
IFC	: International Financial Corporation
IMS	: Integrated Management System
LTI	: Lost Time Injury
MRMs	: Management Review Meetings
MTI	: Medical Time Injuries
OHS	: Occupational Health and Safety
PDCA	: Plan, Do, Check, Act
POP	: Project Operations Plan
RTI	: Restricted Time Injury
SDS	: Safety Data Sheet
TRI	: Total Recordable Injury
UN	: United Nations

Stakeholder: All concerned individuals, groups, organizations or entities who are directly or indirectly affected by search and operating activities or have effect on operations

Social Impact Assessment: It is an action taken to evaluate social issues and their impact as a result of mining and search operations as long as the said operations continue.

Emergency: It is an incident where some actions are required to be taken to minimize events and losses, which are likely to result in injury or death and cause damage to any property and/or environment, and to prevent them getting rampant.

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	5/90

1 INTRODUCTION

TÜMAD Madencilik San. ve Tic. A.Ş. (TÜMAD) plans to establish the Lapseki Gold and Silver Mine and Processing Project (the Lapseki Project) within the administrative boundaries of the Şahinli and Kocabaşlar Villages of the Lapseki District in the Province of Çanakkale. The construction phase of the Lapseki Project has reached the completion stage and the operation phase will start in October 2017.

TÜMAD plans to establish the İvrindi Gold and Silver Mine and Processing Project (the İvrindi Project) within the administrative boundaries of Değirmenbaşı and Küçükıllica Villages of the İvrindi District of the Province of Balıkesir. The İvrindi Project has started with mobilization.

This document is the **Environmental and Social Management Monitoring Framework (ESMMF)** for the TÜMAD Lapseki and İvrindi Gold Mines. The document reference number for this Framework is (TMD_EYS_PLN.004). This framework sets the requirements for the operation phase of the Lapseki Project and for construction and operation phase of the İvrindi Project and is an integral part of the ESMS implemented by TÜMAD for the two mine projects.

The ESMMF is prepared as part of the **Supplementary Environmental and Social Impact Assessment package (SIP)** carried out by TUMAD to supplement the EIA approved by the National authorities with additional studies in line with EBRD requirements for Category A projects.

2 PURPOSE

The purpose of this document is to describe the general framework of the TÜMAD Environmental and Social Management System.

This framework plan governs a general overview of the processes and activities to be implemented throughout all operations, so that purposes and objectives of occupational health and safety and environmental and social management systems of TÜMAD are fulfilled. In addition, this document aims at adopting a consistent and comprehensive approach to assessing and evaluating. Occupational Health and Safety (OHS), Environmental and Social (E&S) risks and planning and managing minimisation of such risks.

The ESMMF was developed to reflect mitigation measures addressing identified environmental and social impacts respectively in the National EIA and in the SIP Package and to outline overall approach to these impacts monitoring. This is a framework plan which is a summary of and is implemented jointly with individual environmental and social management plans that are prepared for specific issues. Management plans are disclosed as part of the SIP Disclosure Package (consist of individual plans listed below) , but these are living documents that are subject to changes and amendments as they are implemented under the Company's Environmental and Social Management System of the life of the project.

Together with the upgrades of the Framework documents into detailed Environmental or Social Management Plans and subsequent revision to these plans to reflect project development, this ESMSF will be revised into an Environmental and Social Management Plan and its detailed appendixes will be updated to reflect up to date commitments to monitoring and management of environmental and social risks related to the Project.

The SIP package includes the followings:

1. The EIA study prepared and approved in line with Turkish EIA Legislation
2. Description of the Project Study Area and associated facilities
3. A summary of physical and biological impacts of the Project over the Project Study Area and associated facilities
4. Critical Habitat Assessment over the Project Study Area and associated facilities
5. Social Impact Assessment (SIA) over the Project Study Area and associated facilities
6. Hydrogeological Impact Assessment over the Project Study Area and associated facilities
7. Non-technical summary of the Project (NTS)
8. Commitments Register of the Project
9. Environmental and Social Management Framework System (ESMSF)
10. Environmental and Social Management Plans and Frameworks including:
 - Air Quality Management Plan
 - Framework Biodiversity Action Plans
 - Biodiversity Offsets Strategy

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	6/90

- Community Health and Safety Security Management Plan
- Community Development Framework
- Conceptual Mine Closure Framework
- Contractor Management Plan
- Cultural Heritage Management Plan
- Cyanide Management Plan
- Emergency Action Plan
- Explosives and Hazardous Materials Management Plan
- Labour Management Plan
- Livelihood Restoration Framework (LRF)
- Local Procurement Management Plan
- Stakeholder Engagement Plan (SEP)
- Waste Management Plan
- Water Resources Management Plan
- Noise and Vibration Management Plan
- Traffic Management Plan
- Water Resources Management Plan

11. ESAP – which includes actions to structure the project in line with lender requirements and will form part of the loan agreements.

3 SCOPE

This framework encompasses all practices by TÜMAD on Occupational Health and Safety (OHS), Environmental and Social impacts for the whole life cycles of both the İvrindi Project and operation phase of the Lapseki Project.

This framework has also been organized for the purpose of listing basic goals, standard requirements and undertakings that will be put into practice via Plans, Procedures, Instructions, Permits and other implementation documents.

This framework is owned by the TÜMAD Integrated Management System (IMS) & Sustainability Manager. This framework will be reviewed on a minimum of a six monthly basis during construction and commissioning. During operation phase, this framework will be reviewed on an annual basis to determine whether any changes or updates are required to the Management Framework unless a more frequent update is required to reflect changing project design or ESMS requirements and procedures.

Any requests for changes to this framework must be addressed to the owner of this framework Management Plan and will be subject to appropriate review and approval processes as outlined in the Management Oversight Procedure (TMD_EYS_PRD.007).

3.1 ESMS Framework Related Documents

The suite of Management Plans/Procedures/Instructions is developed for the TÜMAD Projects and as a part of the ESMS. Documents produced within the ESMS are listed in Appendix 1.

4 PROJECT STANDARDS

- ISO 9001:2015 “Quality Management System Requirements” Management system
- ISO 14001:2015 “Environmental Management System Requirements” Management system
- OHSAS 18001:2007 “Occupational Health and Safety” Management system
- SA8000® Standard
- ISO 31000 “Risk Management”
- Laws and Regulations of Turkey
- Terms of Legislative Permit and License

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	7/90

- Good International Industry Practices referred to by EBRD Environmental and Social Performance Requirements including Voluntary Principles on Security and Human Rights
- TÜMAD IMS/Environmental/OHS Community relations policies
- The Minerals Council of Australia “Mine Managers Handbook”
- United Nations (UN) Global Compact
- UN Universal Declaration of Human Rights
- IFC Social and Environmental Sustainability Performance Standards
- EBRD Performance Requirements
- International Council on Mining and Metals (ICMM) Management Principles
- International Cyanide Management Code
- SEVESO III Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012

These standards shall be applicable, traceable and auditable during all phases of exploration, construction, operating, closure and reclamation. In the event that there is any discrepancy between legislative requirements which are in force in Turkey and good international industry practice, the statutory requirements shall be fulfilled, but an attempt shall also be made to follow strict standards and requirements.

5 ORGANISATION

5.1 Organizational Chart of TÜMAD General Directorate

TÜMAD has established its organization at both General Directorate level and Project levels. TÜMAD General Directorate organizational chart is given in Figure 1.

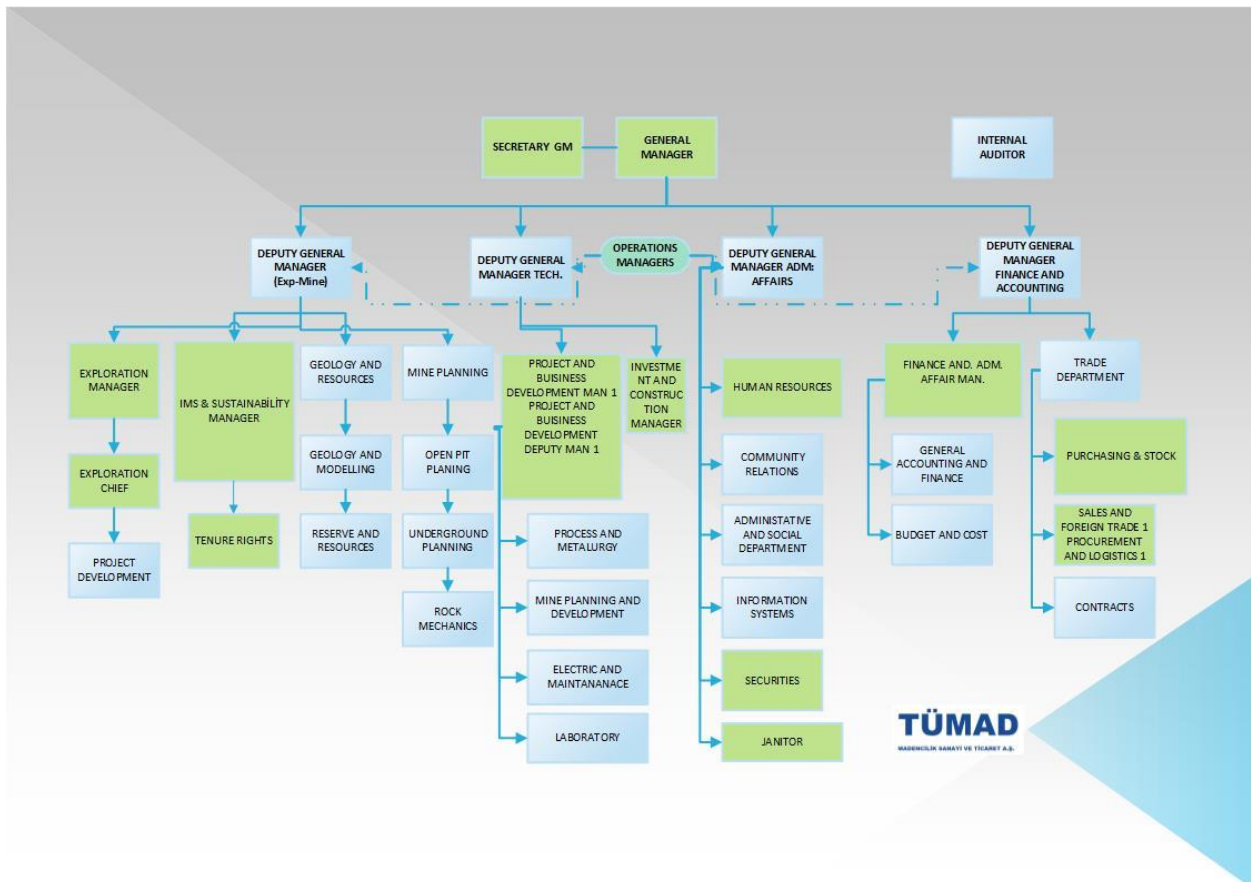


Figure 1: TÜMAD General Directorate Organizational Chart

According to TÜMAD Organization:

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	8/90

- Operation Manager reports to the Deputy (Technical) General Manager For the issues of, Production, Maintenance & Planning
- Operation Manager Reports, to the Deputy General Manager (Mine & Geology) Open Pit issue and Mine Geology issues
- Operation Manager Reports, to the Deputy General Manager (Administrative) HR, Security, Administrative, Community, Government External Relations issues
- Operation Manager Reports, to the Deputy General Manager (Finance & Trade) Finance Cost Accounting, Supply Chain

5.2 Organizational Chart of TÜMAD ESMS and OHS

The Environmental and Social Management System and the Occupational Health and Safety Management System of TÜMAD will be managed according to the organizational chart given below.

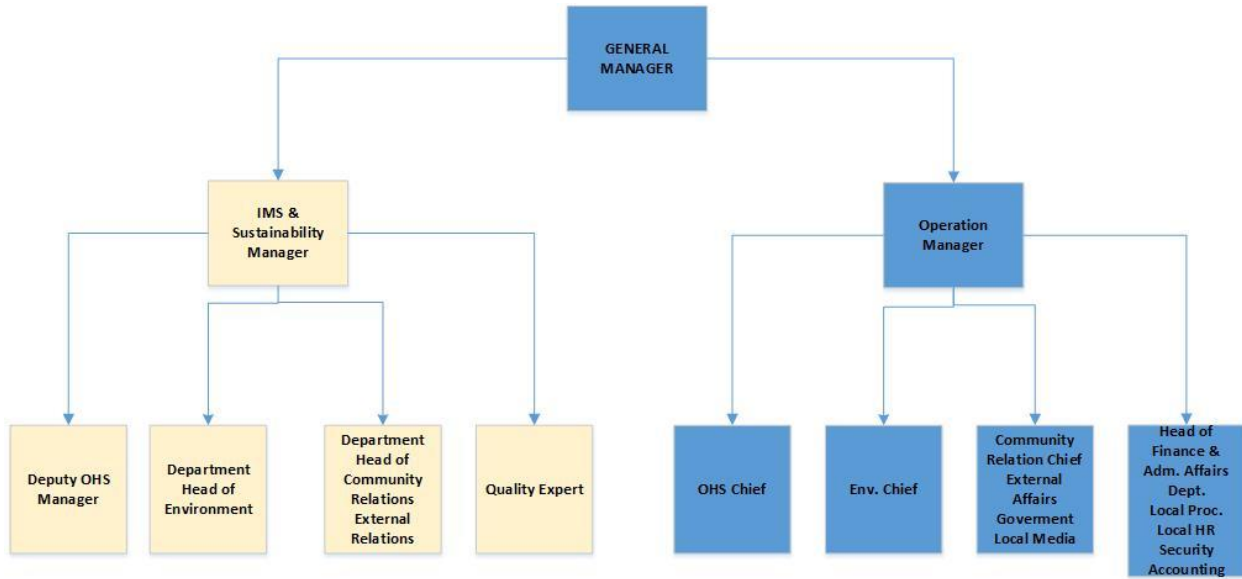


Figure 2: Organizational Chart of TÜMAD ESMS and OHS MS

6 ROLES AND RESPONSIBILITIES

Table 1: Roles and Responsibilities

Roles	Responsibilities
General Manager	<ul style="list-style-type: none"> • Assume the role of a leader and director for IMS (OHS/E/CR) and Social goals and objectives, • Responsible for the execution of review process. Provide authority and resources for the effective execution of TÜMAD policies, procedures and this Management System. • Identify and monitor responsibilities, necessary methods and time table for the accomplishment of new objectives. • Ensure that resources and responsibilities are allocated properly for applying them to OHS, Environmental and Community Relations management and improving them continually, • To ensure that the TÜMAD ESMS is effective and efficient in managing TÜMAD requirements and legal requirements.

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	9/90

Roles	Responsibilities
Manager Financial and Administrative Manager	<ul style="list-style-type: none"> • Ensure the incorporation of IMS (OHS/E/CR) and Social requirements into preliminary qualification and tender and contracting processes, • Ensure the incorporation of IMS (OHS/E/CR) and Social requirements into the scope of the Work and contractual terms, • Review and assess IMS (OHS/E/CR) and Social performance and skills of subcontractors. • Ensure that the risks associated with OHS, Environmental and Community Relations are managed effectively regarding purchasing, services and labour. • Ensure that the risks associated with OHS, Environmental and Community Relations are managed effectively regarding purchasing, services and labour.
Purchasing Manager	<ul style="list-style-type: none"> • Ensure that the risks associated with OHS, Environmental and Community Relations are managed effectively regarding purchasing, services and labour.
TÜMAD IMS & Sustainability Manager	<ul style="list-style-type: none"> • General responsibility for the implementation of Integrated Management System Framework and for the overall compliance with the legislation and other applicable industrial IMS (OHS/E/CR) and Social standards, • Monitor the implementation of the system to review, audit and measure IMS and Social performance of all TÜMAD's personnel and subcontractors, • Responsible for OHS/ Environmental and Social policy and statutory and permit requirements, • Describe, assess and manage OHS / Environmental and Social risks, • Develop objectives and processes for planning continual improvement of OHS/Environmental and Community Relations management, • Implementation of OHS, Environmental and Community Relations Management System, including resource allocation, • Manage the risks associated with OHS, Environmental and Community Relations regarding any actual changes to processes, with intent to manage risks at the Lowest Level possible through the implementation of Management Plans Commitment Records for OHS, Environmental and Community Relations, • Regulate and document key requirements and processes required for the effective functioning of the Management System. • Ensure that adequate measures are taken to safeguard the health and security of employees and Community and the environment in case of any emergency. • Assess the hazards or impact of operations at TÜMAD and assess the effectiveness of management controls. • Monitoring OHS, environmental and social performance to assess compliance and conformity, • Environmental and Social Reporting to the management and the Lenders • CSR/sustainability reporting to external stakeholders • Make sure that all non-conformities, incidents and lessons learned are recorded and corrective actions are identified and communicated.

Roles	Responsibilities
Head of the OHS Department	<ul style="list-style-type: none"> Develop, implement and monitor TÜMAD OHS Management System, Communicate OHS Management System across TÜMAD, Fulfil all incident reporting and OHS performance requirements, Perform all internal OHS reporting for the project, Manage the risks associated with OHS regarding any actual changes to processes, with intent to manage risks at the Lowest Level possible through the implementation of Management Plans Commitment Records for OHS, Regulate and document key requirements and processes required for the effective functioning of the Management System, Ensure that adequate measures are taken to safeguard the health and security of employees and community and the environment in case of any emergency.
Head of the Environmental Department	<ul style="list-style-type: none"> Develop, implement and monitor TÜMAD Environmental Management System, Communicate Environmental Management System across TÜMAD, Fulfil all incident reporting and Environmental performance requirements Perform all internal environmental reporting for the project, Review and assess the monthly subcontractor monitoring process in terms of environment Manage the risks associated with Environment regarding any actual changes to processes, with intent to manage risks at the Lowest Level possible through the implementation of Management Plans Commitment Records for Environmental Regulate and document key requirements and processes required for the effective functioning of the Management System, Ensure that adequate measures are taken to protect the environment in case of any emergency.
Head of the Human Resources Department	<ul style="list-style-type: none"> Develop objectives and processes for planning continual improvement of OHS/Environmental and Community Relations management.
Head of Community Relations for each mine	<ul style="list-style-type: none"> Develop, implement and monitor TÜMAD Social Management System, Communicate Social Management System across TÜMAD, Fulfil all incident reporting and social performance requirements, Perform all internal social reporting for the project, Review and assess the monthly subcontractor monitoring process. Management of CLOs and their activities at both Mine sites Design and management of Community development Projects
Head of Human Resources Department	<ul style="list-style-type: none"> Develop, implement and monitor TÜMAD policies/procedures related to human resources, Perform all HR processes (Selection and Placement, Training, Performance Management, Discipline, Wages and Vested Benefits, Organization Charts, Collective Agreements, Career Planning, payroll and accrual etc.) in compliance with TÜMAD ESMS Participate in the negotiation process of the collective bargaining processes with Unions Manage the Human Resources Department budget Develop the training system that will ensure the continuous improvement of personnel

Roles	Responsibilities
Procurement Manager	<ul style="list-style-type: none"> • Prepare, issue and control the purchasing activities • Supervise the contracting, purchasing, and warehousing in line with the requirements of procedures/plans related to procurement • Coordinating the warehouse manager, Central or Enterprise Purchasing Managers, giving advice and instructions • Achieving the optimum amount of inventory by ensuring the continuity of production by ensuring that warehouse stocks are kept at the optimum amount • Performing relationship management with supplier companies, monitoring supplier performances • Ensuring that research is conducted to ensure current and future purchases/suppliers by constantly analyzing the conditions of procurement
Construction Manager (during construction)	<ul style="list-style-type: none"> • Responsible for the compliance with IMS (OHS/E/CR) requirements and TÜMAD policies during the construction of a mine, • Provide team members and contractors involved in all operations with IMS (OHS/E/CR).
Operations Manager	<ul style="list-style-type: none"> • Responsible for the compliance of a mine with IMS (OHS/E/CR) requirements and TÜMAD policies during the operation of a mine, • Provide team members and contractors involved in all operations with IMS (OHS/E/CR) and Social leadership.
All TÜMAD Personnel	<ul style="list-style-type: none"> • Accomplish the necessary IMS (OHS/E/CR) and Social on-the-job compliance and orientation. • Follow TÜMAD IMS (OHS/E/CR) and Social requirements and procedures.
Contractors	<ul style="list-style-type: none"> • Follow TÜMAD IMS (OHS/E/CR) and Social requirements and procedures in accordance with contractual terms.
Training and Documentation Coordinator	<ul style="list-style-type: none"> • Arrange training of employees/ contractors on this Plan. • Provide training for all personnel throughout operation with intent to enhance awareness and competence about technical, OHS, environmental and Community relations, have awareness about the criticality and compliance of the activity conducted and describe the contributions for the achievement of the company's quality, OHS, Environmental and Social objectives. • Develop processes to provide necessary training sessions and competency for the management of OHS, Environmental and Community Relations risks.
Security Manager	<ul style="list-style-type: none"> • Resisting to sabotage against the company, preparing of, civil defense plan, training and supervising personnel • Cooperation and coordination with police and gendarmerie. • Taking preventive measures against all types of threats and threats such as sabotage, fire, theft, looting and destruction, forced labor retention. • Measures for completion of protection and security services. • Access to the mining area, control of the identity at the exit, to prevent the circulation of suspects in the field to be prevented, to enter the organization, to prevent the entry of unauthorized persons in the area, to provide necessary assistance in any kind of accident in the field.

Roles	Responsibilities
External Affairs/PR/Communications Manager/specialist	<ul style="list-style-type: none"> • Conducting honest, scientific, transparent, effective communication and relationship based on trust, respecting the values between general directorate and operations • Establishment of risk assessments, work programs to reduce the likelihood of risks such as action, domination, protest and stoppage of production in pre- and post-implementation phases • A list of interests, creating a map to solve the conflicts that will prevent the solution proposal and execution of implementation studies • Ensure local people support activities, management and employees focus on work. • Conducting studies that contribute to a sustainable production system with social approval • Establishment of local, national written and visual press lists, media follow-up and archiving, and, when necessary, announcements of advertisement press releases and transmission of correct information and messages to the target and related public • Production and realization of appropriate social responsibility projects with the aim of measurable impact on the target group • Web page bulletin, magazine, brochure, film making and social media activities to conduct monthly company activities annually

7 IMPLEMENTATION

7.1 Overall Approach

At TÜMAD, OHS/ Environmental / Community Relations Integrated Management System (herein after referred as “ESMS”) is developed such that it includes the requirements of ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007, SA 8000 and the EBRD and IFC Standards.

The ESMS is based on the principle of continual improvement, development and sustainability and designed to:

- Define TÜMAD's objectives and provide an instrument for accomplishing such objectives;
- Define and manage OHS / Environmental and Social risks in an effective manner at the time of investment, construction, operation and closure;
- Provide compliance with the applicable Turkish legislation and good international industry practices;
- Implement TÜMAD's Policies, Procedures, Guidelines, Plans and Standards;
- Assign responsibilities to functions and personnel for the implementation of the Management System; and
- Develop a process to define opportunities for improvement and to review and update the Management System.

The PDCA (Plan, Do, Control, Act) cycle is used for this management system and it contains 13 components (explained in Section 7). Each component deals with a specific purpose that allows TÜMAD to manage OHS, Environmental and Social Risks. Each component set outs minimum requirements for the accomplishment of an objective and refers to the implementation of procedures and processes. The management system adopts the methodology of PDCA cycle.

Within the framework of OHS, Environmental and Community Relations, each department will identify its own function and management operating system and define its own common system through monitoring; this process is a dynamic and scalable process. The PDCA cycle is explained in figure below.

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	13/90

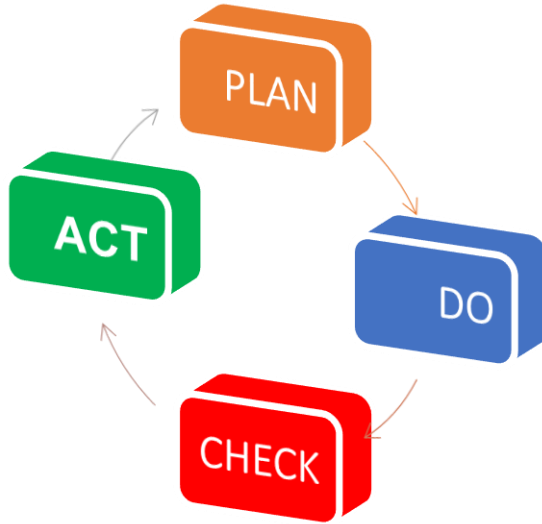


Figure 3: Plan-Do-Check-Act

PLAN 1. Policy and Compliance 2. Risk Assessment and Management 3. Target and Objective Setting
DO 4. Organization, Liabilities and Responsibilities 5. Competence and Training 6. Communication and Consultation 7. Change Management 8. Operational Control of ESMS Framework 9. Emergency Preparedness 10. Supplier and Contractor Management
CHECK 11. Monitoring and Assessment 12. Non-conformity, Incident and Action Management
ACT 13. Management Review

7.2 TÜMAD ESMS Overview

TÜMAD features an organization and management-based integrated approach and structure for the planning and management of OHS, Environmental and Social risks.

Supply Chain, Human Resources, Quality and Occupational Health and Safety and Environmental and Social Management Policies are produced. TÜMAD Occupational Health and Safety and Environmental and Social Management Policy includes the general commitment by TÜMAD with a view to provide a safe and healthy working environment for workers, contractors, visitors and communities within which it operates.

In accordance with its policies and objectives, the management will supply necessary resources for the execution and continual improvement of all operations conducted by the corporation as aligned with TÜMAD policies.

TÜMAD shall implement the contents of this document through:

- Management Plans, which combine effective mitigation and management controls from the Turkish EIA (Environmental Impact Assessment) and international ESIA (Environmental and Social Impact Assessment) with standard practices and good international industry practices and identify key actions and monitoring measures;
- Implementation Procedures, which detail the actions and procedures to be implemented by the personnel and subcontractors.

The hierarchy of the ESMS is given Figure 4.

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	14/90

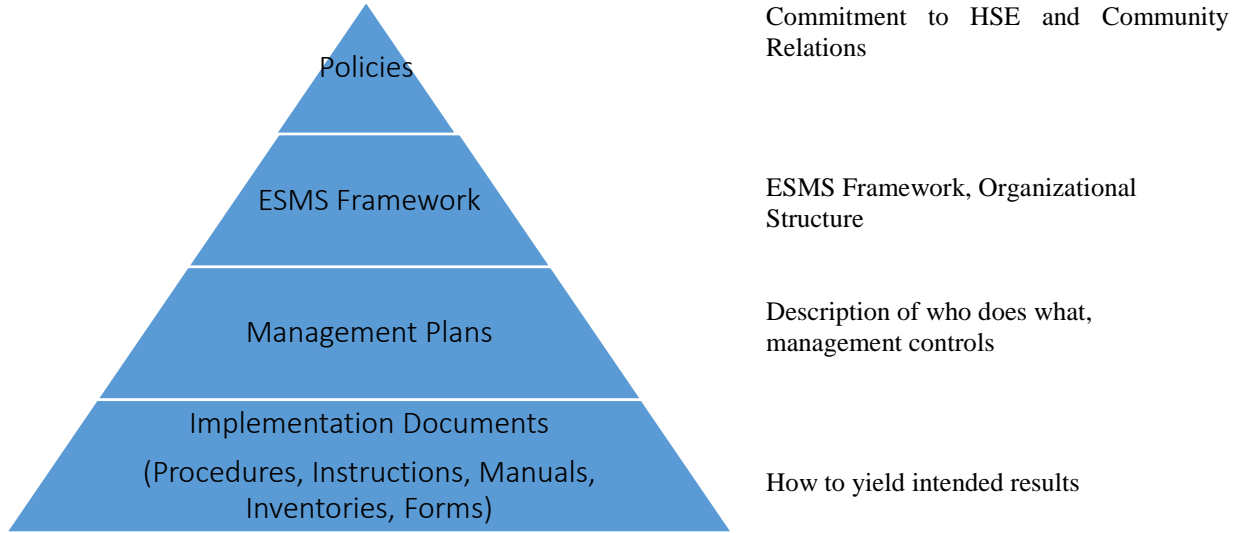


Figure 4 The ESMS Hierarchy

The management at TÜMAD will periodically organize Management Review Meetings (MRM's) attended by the entire management every 6 months with intent to check such operations and compare the state of meeting objectives. At these meetings, the current situation following internal and external audits and improvements and the efficiency and effectiveness of processes shall be reviewed.

7.3 TÜMAD ESMS Components

The PDCA (Plan, Do, Control, Act) cycle used for the TÜMAD ESMS contains 13 components and is explained below.

Table 2: PDCA cycle used for the TÜMAD ESMS

Action	Component	Reference
"Plan"	1: Policy and Compliance	<ul style="list-style-type: none"> Section 7.3.1 of this Plan Occupational Health and Safety ,Environment and Social Management Policy Health and Safety Policy (TMD_EYS_POL.001) Environmental Policy (TMD_EYS_POL.002) Quality Policy (TMD_KAL_POL.003) Community Relations Policy (TMD_EYS_POL.001) Supply Chain Policy (TMD_EYS_POL.009) Human Resources Policy (TMD_EYS_POL.006) Field Commitment (TMD_EYS_POL.008) All E&S Management Plans listed in Component 2 & Appendix 2 of this document

Action	Component	Reference
	2: Risk Assessment and Management	<p><i>Applicable for both LAPSEKİ and İVRİNDİ MINES</i></p> <ul style="list-style-type: none"> • Section 7.3.2 of this Plan • Air Quality Management Plan (TMD_CEV_PLN.006) • Noise and Vibration Management Plan (TMD_CEV_PLN.002) • Waste Management Plan (TMD_CEV_PLN.004) • Cyanide Management Plan (TMD_CEV_PLN.008) • Conceptual Mine Closure Framework (TMD_CEV_PLN.001) • Framework Biodiversity Action Plans • Spill Clean Up Plan (TMD_CEV_PLN.009) • Health and Safety Management Plan (TMD_ISG_PLN.007) • Risk Assessment Procedure (TMD_ISG_PRD.003) • Community Health and Safety Security Plan (TMD_EYS_PLN.006) • Explosives and Hazardous Materials Management Plan (TMD_ISG_PLN.006) • OHS Training Plan (TMD_ISG_PLN.001) • Traffic Management Plan (TMD_ISG_PLN.005) • Contactor Management Plan (TMD_ISG_PLN.003) • Labour Management Plan (TMD_IK_PLN.002) • Local Procurement Management Plan (TMD_EYS_PLN.005) • HR Training Plan (TMD_IK_PLN.001) <p><i>Applicable for LAPSEKİ MINE</i></p> <ul style="list-style-type: none"> • Commitments Register for LAPSEKİ MINE • Lapseki Emergency Action Plan (TMD_LAP_ISG_PLN.002) • Lapseki Livelihood Restoration Framework (TMD_LAP_IK_PLN.002) • Lapseki Stakeholder Engagement Plan (TMD_LAP_EYS_PLN.001) • Lapseki Water Resources Management Plan (TMD_LAP_CEV_PLN.003) <p><i>Applicable for İVRİNDİ MINE</i></p> <ul style="list-style-type: none"> • Commitments Register for LAPSEKİ MINE • İvrindi Emergency Action Plan (TMD_IVR_ISG_PLN.002) • İvrindi Livelihood Management Plan (TMD_IVR_IK_PLN.002) • İvrindi Stakeholder Engagement Plan (TMD_IVR_EYS_PLN.001) • İvrindi Water Resources Management Plan (TMD_IVR_CEV_PLN.003)
	3: Target and Objective Setting	<ul style="list-style-type: none"> • Section 7.3.3 of this Plan • Environment - OHS Target and Objective Procedures (TMD_CEV_PRD.001)- (TMD_ISG_PRD.013)
"Do"	4: Organization, Liabilities and Responsibilities	<ul style="list-style-type: none"> • Section 7.3.4 of this Plan • Organization chart for OHS, Environmental and Community Relations.
	5: Competence and Training	<ul style="list-style-type: none"> • Section 7.3.5 of this Plan • HR Training Procedure (TMD_IK_PRD.002) • HR Training Plan (TMD_IK_PLN.001) • OHS Training Plan (TMD_ISG_PLN.001)
	6: Communication and Consultation	<ul style="list-style-type: none"> • Section 7.3.6 of this Plan • Communication and Internal Communication Procedures (TMD_EYS_PRD.005) • Stakeholder Engagement Plan (TMD_EYS_PLN.001) • Complaint and Feedback Procedure (TMD_KTI_PRD.001) • Accident - Incident - Loss Reporting Form (TMD_EYS_FRM.003)

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	16/90

Action	Component	Reference
	7: Change Management	<ul style="list-style-type: none"> Section 7.3.7 of this Plan Management of Change Procedure (TMD_EYS_PRD.006)
	8: Operational Control of ESMS	<ul style="list-style-type: none"> Section 7.3.8 of this Plan The documents listed in the Appendix 1 of this Framework.
	9: Emergency Preparedness	<ul style="list-style-type: none"> Section 7.3.9 of this Plan Lapseki Emergency Action Plan (TMD_LAP_ISG_PLN.002) İvrindi Emergency Action Plan (TMD_IVR_ISG_PLN.002)
	10: Supplier and Contractor Management	<ul style="list-style-type: none"> Section 7.3.10 of this Plan Local Procurement Management Plan (TMD_EYS_PLN.005) Contractor Management Plan (TMD_ISG_PLN.003)
"Check"	11: Monitoring and Assessment	<ul style="list-style-type: none"> Section 7.3.11 of this Plan OHS Monitoring and Measurement Procedure (TMD_ISG_PRD.014) Calibration Procedure (TMD_EYS_PRD.08) Environmental and Social Monitoring Plan
	12: Non-conformity, Incident and Action Management	<ul style="list-style-type: none"> Section 7.3.12 of this Plan Non-conformity, Incident and Action Management Procedures (TMD_ISG_PRD.007)
"Act"	13: Management Review	<ul style="list-style-type: none"> Section 7.3.13 of this Plan Management System Review Procedure (TMD_KAL_PRD.007)

7.3.1 Component 1 - Policy and Compliance

Purpose: Describe and follow all OHS/ Environmental and Social policy and statutory and permit requirements.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibilities:

- Make sure that policies are communicated internally and disclosed externally.
- Develop, manage, periodically review, and update a Commitment Register to incorporate statutory, permit and other requirements.
- The TÜMAD IMS and Sustainability Manager shall be responsible for the implementation of this Component.

Additional Documents:

- Occupational Health and Safety, Environment and Social Management Policy,
- Health and Safety Policy,
- Environmental Policy,
- Quality Policy,
- Community Relations Policy,
- Supply Chain Policy,
- Human Resources Policy, and

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	17/90

- Field Commitment.

7.3.2 Component 2 - Risk Assessment and Management

Purpose: Describe, assess and manage OHS / Environmental and Social risks.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibilities:

- The risk assessment shall be set as given in the Risk Assessment Procedure in line with all operations, products and services executed/planned/modified or with operations, products and services under the OHSAS 18001 Management system such that it encompasses all persons and conditions and risk assessments shall be performed. The results of Risk Assessment shall be assessed, control measures shall be taken and the residual risk shall be identified.
- The risk assessment will be prepared in compliance with the requirements stated in the SEVESE III Directive.
- Develop hazard and risk management procedure such that it covers all OHS, Environmental and Community Relations subjects, including pre-assignment hazard assessments and qualitative and quantitative assessments.
- Keeping a record of risks and actions for TÜMAD Enterprises in accordance with risk assessment tables under Operating Risk analyses.
- Perform monitoring and control by developing Tables of Non-Conformities during Operations other than Risk Assessment Tables and by assigning an officer along with the Proactive Corrective Action and Deadline.
- Develop plans to manage the risks identified.
- Document the removal of risk management actions through quarterly checks performed Risk Records.
- The TÜMAD IMS and Sustainability Manager shall be responsible for the implementation of this Component.

Additional Documents:

- Risk Assessment Procedure (TMD_İSG_PRD.003)

7.3.3 Component 3 - Target and Objective Setting

Purpose: Develop objectives and processes for planning continual improvement of OHS/Environmental and Community Relations management.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- Annual review of OHS / Environmental and Community relations performance to be executed for targets and objectives given in monitoring measures and KPI tables in the related Management Plans.
- Annual improvement plans to be developed and integrated with general annual planning processes
- Annual assessment on the entire personnel for inclusion in OHS / Environmental and Community Relations performance.
- Reward and incentive schemes shall be based on OHS / Environmental and Community Relations performance rather than the provision of any reconciliation to maximize financial incentives.
- TÜMAD's IMS and Sustainability Manager and Head of the HR Department shall be responsible for the implementation of this Component.

The resources and officers to be monitored to fulfil TÜMAD's corporate objectives which are stated in the Quality Policy. The objectives shall be monitored and recorded by the senior management through annual management review (MR) meetings and budget meetings held on a monthly basis. As a result of each Management Review meeting; the accuracy of performance criteria for Quality Objectives shall be discussed and, if required, revised in consideration of statutory requirements, technological advancements, financial requirements, opinions of the concerned parties, analysis results of performance criteria, closeness to any objectives set in previous periods, quality policy and continual improvement commitment compliance, and digital target values shall be identified for the new period in accordance with criteria set. These target values set for every semi-annual period shall be maintained in the MR

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	18/90

Meeting Report. The responsibilities, necessary methods and time table shall be identified and monitored by the TÜMAD General Manager for the accomplishment of new objectives.

Environmental and Social Dimensions; Measurable Environmental / OHS targets and objectives suited to the policy and statutory requirements shall be set in consideration of critical OHS / Environmental and Social Dimensions identified as a result of OHS hazard and risk analyses; international standards; and statutory requirements, and the method, officer, resource and time required for fulfilling these targets and objectives shall be identified and monitored.

Additional Documents:

- OHS Target and Objectives Procedure (TMD_İSG_PRD.013)
- Environmental Targets and Objectives Procedure (TMD_CEV_PRD.001)
- HR Performance Evaluation Procedure (TMD_IK_PRD.005)
- Performance Evaluation Form (TMD_IK_FRM_012)

7.3.4 Component 4 - Organization, Liabilities and Responsibilities

Purpose: Ensure that resources and responsibilities are allocated properly for applying them to OHS, Environmental and Community Relations management and improving them continually

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- IMS and Sustainability Manager designated for the implementation of OHS, Environmental and Community Relations Management System, including resource allocation, to whom responsibility is assigned.
- OHS, Environmental and Community Relations Committees formed and Job Definitions documented for the activities of such committees.
- Documented roles and responsibilities for OHS, Environmental and Community Relations.
- An organizational chart shall be drawn up for OHS, Environmental and Community Relations and made available to all workers.
- All OHS, Environmental and Community Relations employees shall be documented in the definition of individual roles / jobs.
- The roles and responsibilities of Contractors regarding OHS, Environmental and Community Relations shall be documented in contracts.
- TÜMAD General Manager shall be responsible for the implementation of this Component.

Additional Documents:

- Organization chart for OHS, Environmental and Community Relations.
- Job Definitions for OHS, Environmental and Community Relations Committees.
- Roles and responsibilities for OHS, Environmental and Community Relations.

7.3.5 Component 5 - Competence and Training

Purpose:

- The prospective personnel who meet those requirements clearly set out in job definitions of personnel given in HR organizational charts of TÜMAD shall be recruited after the assessment of the Human Resources Department and Heads of related Departments. Following the orientation training, the personnel shall start working in line with the definition of the roles assigned to the personnel.
- Provide training for all personnel throughout operation with intent to enhance awareness and competence about technical, OHS, environmental and Community relations, have awareness about the criticality and compliance of the activity conducted and describe the contributions for the achievement of the company's quality, OHS, Environmental and Social objectives.
- Develop processes to provide necessary training sessions and competency for the management of OHS, Environmental and Community Relations risks.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	19/90

Procedure and Responsibility:

- Assessment of training needs of OHS, Environmental and Community Relations committed on an annual basis.
- Training requirements for OHS, Environmental and Community Relations set out and implemented for all personnel.
- On-the-job orientation training on OHS, Environmental and Community Relations for new personnel (including contractors).
- On-the-job orientation training on OHS, Environmental and Community Relations for visitors.
- Particular requirements for competence of and selection criteria (fitness for job) for all personnel who perform those roles and works incorporating critical risks associated with OHS, Environmental and Community Relations.
- All roles that entail technical certificate register or license for documentation.
- Awareness training provided for all personnel at least every year regarding OHS, Environmental and Community Relations.
- Awareness training related to Project standards (including environmental, OHS and social standards) provided for all personnel at least every year regarding OHS, Environmental and Human Resources.
- Social Awareness training (including cultural sensitivities, code of conduct etc.) provided for all personnel at least every year regarding OHS, Environmental and Human Resources.
- Records of all on-the-job orientation, awareness and competence-oriented training sessions to be kept. The Training and Documentation Coordinator shall be responsible for the implementation of this Component.

Additional Documents:

- OHS Training Plan (TMD_İSG_PLN.001)
- HR Training Procedure (TMD_İK_PRD.002)

7.3.6 Component 6 - Communication and Consultation

Purpose:

- Engage actively in the management of risk associated with OHS, Environmental and Community Relations together with personnel, the subcontractor's personnel and external stakeholders.
- The issues which the personnel intends to communicate to the management by using request and suggestion box shall be checked and reviewed by the Human Resources Department every month, and the concerned functional officers and the request/suggestion owner shall be kept informed of the issue.
- Training meetings (occupational safety meetings, human resources training meetings) shall be used for training purposes and as instruments of discussion for individual suggestions. In addition, all participants may state their opinion at any kind of meeting.
- E-mail, telephone or radio shall be used for fast exchange of information on a daily basis.
- The communication system to be used for the implementation of actions in TÜMAD Integrated Management System are given in the Communication and Internal Communication Procedure (TMD_EYS_PRD.005).
- Engage actively and communicate openly with the workers by having worker's representatives (who should be selected in compliance with the legal requirements) and set actions to implement constructive communication system with the workers, worker representatives and unions.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

Internal Communication:

- Describe the process for communication with all employees regarding OHS, Environmental and Community Relations subjects.
- Performance of internal communication through meetings, training meetings, announcement boards, request and suggestion boxes, e-mail, network connection, telephones and radios, and memos.

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	20/90

- Ensure that all employees are informed of OHS, Environmental and Community Relations subjects and allowed to engage in any works associated with OHS, Environmental and Community Relations.
- Ensure that the subjects, such the communication of policies, targets and objectives, and performances, are published through announcement boards, controlled document boards or in the form of electronic memos.
- Communicate training sessions, meetings and all kinds of non-routine activities and requests to employees, and keeping them informed of quality, production, environmental and OHS subjects.
- Develop channels of regular communication with all employees regarding subjects of OHS and Environmental and Community Relations. This shall include, but is not limited to;
 - Increasing internal awareness
 - Awareness about risks associated with OHS, Environmental and social issues/impacts and mitigation measures
 - Pre-employment meetings
 - On the job-trainings
 - Lessons learned from accidents, incidents and near-misses
 - Internal grievance, feedback mechanism, employee satisfaction surveys, labour audit results
 - Concerns, complaints and problems of external stakeholders
- Set procedures for the establishment of communication with external stakeholders concerning related subjects of OHS, Environmental and Community Relations, including the periodic announcement of OHS, Environmental and Community Relations performance including annual Reports in line with the Management plans.
- Check and review, by the Human Resources Department, the issues which the personnel intends to communicate to the management by various tools specified in the Employee Grievance Procedure such as using request and suggestion box every month, and the concerned functional officers and keep the request/suggestion owner informed of the issue.
- Use of e-mail, telephone or radio for fast exchange of information on a daily basis.
- Develop a process to encourage employees and learn about their suggestions for Continuous Improvement.
- Training meetings (occupational safety meetings, human resources training meetings) shall be used for training purposes and as instruments of discussion for individual suggestions. In addition, all participants may state their opinion at any kind of meeting.
- Develop an Employee Grievance procedure and Employee Engagement Policy/procedures to learn about the inquiries, problems and complaints of employees and give reliable responses to them.

External Communication:

- Develop a Complaints & feedback procedure to learn about the inquiries, problems and complaints of external stakeholders and give reliable responses to them.
- Implement the engagement activities specified in the Stakeholder Engagement Plan (SEP) with a specific focus on vulnerable groups such as poor, disabled, children, women, elders and informal users whose rights are not recognised under the national legislations.
- Ensure all feedback and complaints and stakeholder engagement activities are recorded, actions are tracked and closed on time in line with the SEP Commitments.
- Develop a Communications Strategy and annual Communication Plan to address key NGO and media concerns in the region. Engage a risk communications specialist to provide the technical messages in the right language that is understandable for general public
- Development of visual materials (such as brochures, posters) and video, press releases, etc and communicate on the project progress and E&S performance with wider public using tools such as web and social media
- Establish a **Participatory Monitoring Mechanism** which involves setting up a Community Advisory/Monitoring Committee, development of a governance mechanism for the committee (i.e. a protocol which explains the committee's roles and responsibilities and how they will work, and make decisions etc)

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	21/90

- Ensure that the opinion of people other than employees (local community, visitors, stakeholders) is obtained and they are informed by the Community Relations Department through the establishment of communication by e-mail, facsimile, telephone, stakeholder engagement meetings, Community Monitoring Committee meetings or training meeting, where the risks associated with OHS, Environmental and Community Relations affect them.
- Communicate any external notices received on this subject to the related Management Representative without delay by the method of communication preferred by the recipient of this notice.
- Ensure that those providing a report about the subject-matter are informed, where OHS Management Representative is required to open and assess an Accident, Incident, Loss Reporting Form (TMD_EYS_FRM.003) regarding this notification and record it to the environmental impact assessment table / OHS risk assessment table.
- Keeping the General Management informed by Management Representatives of the necessity for the outsourcing of expertise service, where required in line with the corporation's competencies and statutory liabilities concerning OHS, Environmental and Community relations subjects.
- Ensure that the General Manager is provided with the necessary expertise support. Keeping the records, obtained from the person or the entity giving the said support or through and as a result of the method of support provision, filed by Management Representatives.

Engagement and Consultation:

A system that ensures that engagement and consultation is developed, implemented and maintained for the following:

- Proper engagement in the processes of hazard description, risk assessment and identification of controls,
- Proper engagement in the incident investigation,
- Proper engagement in the improvement and review of OHS, Environmental and Social policies and objectives,
- Consultation provided for any changes that affect OHS, Environmental and Social impact assessment and management plans,
- Representation about subjects associated with OHS, Environmental and Social,
- IMS and Sustainability Manager shall be responsible for the implementation of this Component.

Additional Documents:

- Communication and Internal Communication Procedures (TMD_EYS_PRD.005)
- Internal Communication and Advisory Procedure (TMD_EYS_PRD.009)
- Stakeholder Engagement Plans (TMD_LAP_EYS_PLN.001 & TMD_IVR_EYS_PLN.001)
- Complaint and Feedback Procedure (TMD_KTI_PRD.001)
- Corrective Action Procedure (TMD_EYS_PRD.002)
- Livelihood Restoration Framework (TMD_LAP_IK_PLN.002 & TMD_IVR_IK_PLN.002)
- Community Development Framework (TMD_EYS_PLN.007)
- Local Employment Management Plan and Procedures (in close coordination with HR Manager)
- Local Procurement Plan (in close coordination with Purchasing Manager)
- Community Health Safety and Security Management Plan (in close coordination with OHS manager)
- Cultural Heritage Management Plan (in the context of supports to be provided to intangible heritage i.e. cultural events) in close coordination with the and environmental manager
- Social aspects of Cumulative Impact Management Plan (to be prepared) Social Monitoring Plan
- Local Procurement Management Plan (TMD_EYS_PLN.005)

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	22/90

7.3.7 Component 7 - Change Management

Purpose: Manage the risks associated with OHS, Environmental and Community Relations regarding any actual changes to processes.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- Develop a Change Management Procedure based on risk assessment with a view to identify and manage any changes to business process that is likely to affect OHS, Environmental and Community Relations, HR, Procurement and Security Departments performance.
- Develop a procedure to keep regulators and other critical stakeholders (such as Project lenders) of any changes proposed and to secure the contract before introducing any change.
- Head of the OHS Department and the IMS and Sustainability Manager shall be responsible for the implementation of this Component.

Additional Documents

- Management of Change Procedure (TMD_EYS_PRD.006)

7.3.8 Component 8 - Operational Control of OHS, Environmental and Community Relations IMS

Purpose:

- Manage those risks associated with OHS, Environmental and Community Relations regarding TÜMAD's operations with intent to manage risks at the “*lowest level*” possible through the implementation of Management Plans Commitment Records for OHS, Environmental and Community Relations.
- Regulate and document key requirements and processes required for the effective functioning of the Management System.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- Management Plans shall be developed for key OHS, Environmental, Community Relations, HR, Procurement, and Security. These Management Plans drawn up by TÜMAD shall be put into practice upon the commencement of construction activities.
- Head of the OHS Department and IMS and Sustainability Manager shall be responsible for the implementation of this Component.

7.3.9 Component 9 - Emergency Preparedness

Purpose: Ensure that adequate measures are taken to safeguard the health and security of employees and Community and the environment in case of any emergency.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- Develop a Plan for Emergency Preparedness and Response (including cyanide management).
- Implementation and testing of the Plan for Emergency Preparedness and Response.
- Ensure that the personnel is properly trained.
- Ensure communities are properly trained about their role in case of an Emergency Response through trainings and drilling exercises
- Ensure that the plan is developed in discussion with local emergency services and local official authorities and updated regularly to reflect the changes.
- Head of OHS Department and IMS and Sustainability Manager shall be responsible for the implementation of this Component.

Additional Documents:

- Emergency Action Plans (TMD_LAP_ISG_PLN.002 & TMD_IVR_ISG_PLN.002)

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	23/90

- Explosives and Hazardous Materials Management Plan (TMD_ISG_PLN.006)
- Spill Clean Up Plan (TMD_CEV_PLN.009)

7.3.10 Component 10 - Supplier and Contractor Management

Purpose: Ensure that the risks associated with OHS, Environmental and Social are managed effectively regarding local purchasing, services and labour.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- Develop a procedure to assess those risks associated with OHS, Environmental and Social regarding local procurement of materials, equipment, services and local employment and management of labour standards.
- Develop a procedure to make sure that OHS, Environmental and Social requirements are given in tender specifications or design criteria.
- Develop a procedure to identify those criteria for the selection of suppliers and contractors as based on OHS, Environmental and Social requirements described.
- Meet necessary requirements for the control of those risks associated with OHS, Environmental and Community Relations regarding materials, equipment, services and labour.
- Create an inventory of hazardous materials approved for use on-site.
- Keep legally appropriate Safety Data Sheets (SDS's) of hazardous materials available before they are delivered and used.
- Develop contractor management procedures, including training and monitoring for those risks associated with OHS, Environmental and Community relations
- Manager Financial and Administrative Manager and Purchasing Manager shall be responsible for the implementation of this Component.

Additional Documents:

- Purchasing procedures (to include the requirements for OHS, Environmental and Community relations risk assessment, specifications and assessment)
- Inventory of hazardous materials
- Contractor Management Plan (TMD_ISG_PLN.003)

7.3.11 Component 11 - Monitoring and Assessment

Purpose:

- Assess the hazards or impact of operations at TÜMAD and assess the effectiveness of management controls.
- Monitoring OHS, environmental and social performance to assess compliance and conformity.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- The compliance with applicable statutory requirements and also ESMS requirements shall periodically be assessed in with the commitment of compliance and appropriate records shall be kept. This assessment shall be carried out within a system that;
 - provides both qualitative and quantitative measures according to the corporation's needs,
 - monitors the degree of TÜMAD's achievement of OHS, Environmental and Community Relations objectives,
 - monitors the effectiveness level of controls (in relation to both safety and environmental and Community relations),
 - provides the proactive measures for the compliance of the performance with the OHS, Environmental and Community Relations management programs, the operational criteria and the requirements of applicable statutory regulations,

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	24/90

- provides regulatory measures to monitor accidents, diseases, incidents (including non-destructive incidents) and other past evidences of poor OHS, Environmental and Community Relations performance.
- ensures that the results and data related to monitoring and measurement are sufficiently recorded to facilitate the analysis of subsequent corrective actions.
- Develop a procedure for Occupational Health and Safety performance monitoring, data assessment and improvement planning.
- Develop a health monitoring program for employees.
- Develop a procedure to monitor environmental performance, assess data and devise improvement plans.
- Develop a procedure to monitor social performance including (Community Relations, HR, Procurement, Communications and Security) , assess data and devise improvement plans.
- Develop a procedure for periodic performance reporting to the IMS Department at the General Directorate.
- Develop a procedure for bi annual (during construction) and annual reporting to external stakeholders (Annual Sustainability Report).
- The results of periodic assessments shall be stored.
- IMS and Sustainability Manager shall be responsible for the implementation of this Component.

Types of Performance Measurements

Key Performance Indicators (KPI's) are set, and presented in each environmental and social management plans and also presented in Section 8 of this framework, to measure the effectiveness of the implementation of this Management Plan. Additionally, particular Key Performance Indicators shall be described to measure the effectiveness of given control measures provided in the Management Plan.

Reactive Measurements: Reactive measurements are used to identify the frequency and severity of accidents and the materiality of incidents such as injuries and diseases by assessing the effects of Occupational Health and Safety Management System. They are characterized as reactive, because they have no direct contribution to any subject for the improvement of OHS method.

Reactive measurements that will be recorded by TÜMAD are:

- Lost Time Injuries (LTI's) : These are injuries that constrains the worker from working during the next shift.
- Restricted Time Injury (RTI) : These are injuries causing the worker underperform during the next shift compared to his/her regular performance.
- Medical Treatment Injury (MTI) : These are injuries where medical response is required.
- First Aid Injuries (FAI's) : These are injuries where first aid is required.
- Total Recordable Injury (TRI) : In general, it refers to the sum of the topics LTI, RTI and MTI.

Pro-active Measurements: Proactive or positive indicators aim at measuring health and safety performance and improvements rather the avoidance of a negative performance.

Pro-active measurements that will be recorded by TÜMAD are:

- Training hours
- Workplace inspection numbers
- Workplace health and safety measurement numbers

Performance Monitoring: IMS (OHS/E/CR) and Social performance will be monitored with the following reports:

- Monthly department (IMS (OHS/E/CR) reports to the Senior Management.
- TÜMAD monthly progress reports.
- Annualy Corporate Social Responsibility and Sustainability report.
- Monthly Occupational Health and Safety and Environmental report.
- Bi annual and Annual reporting to the Lenders.

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	25/90

- Reporting of IMS (OHS/E/CR) compliance to related governmental bodies during operation (every 6 months).
- Management Review Reports

Additional Documents:

- Procedure for Environmental Operations Monitoring (TMD_CEV_PRD.006)
- OHS Monitoring and Measurement Procedure (TMD_ISG_PRD.014)
- Calibration Procedure (TMD_EYS_PRD.008)
- Lapseki Livelihood Restoration Framework (TMD_LAP_IK_PLN.002)
- İvrindi Livelihood Restoration Framework (TMD_IVR_IK_PLN.002)
- Lapseki Stakeholder Engagement Plan (TMD_LAP_EYS_PLN.001)
- İvrindi Stakeholder Engagement Plan (TMD_IVR_EYS_PLN.001)
- Community Development Framework (TMD_EYS_PLN.007)

7.3.12 Component 12 - Non-conformity, Incident and Action Management

Purpose: Make sure that all non-conformities, incidents and lessons learned are recorded and corrective actions are identified and communicated.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- All non-conformities, incidents and near-misses should be investigated to the extent proportioned to the potential risk or result such that they contain lessons learned and suggestions for improvement.
- All incidents should be reported within the same business day of occurrence.
- Depending on the actual results and maximum reasonable outcome of the effect, notification should be performed in accordance with time limits and statutory requirements set by the concerned internal and external parties.
- All incidents resulting in personal injury or disease and monthly performance statistics should be reported to the General Directorate.
- Develop an incident management procedure including reporting and notification requirements.
- IMS and Sustainability Manager shall be responsible for the implementation of this Component.

Additional Documents

- Corrective Action Procedure (TMD_EYS_PRD.002)

7.3.13 Component 13 - Management Review

Purpose: To ensure that the TÜMAD ESMS is effective and efficient in managing TÜMAD requirements and legal requirements.

Scope: All operations at TÜMAD throughout the whole lifecycle of Projects.

Procedure and Responsibility:

- Develop a procedure for the annual review of the performance and effectiveness of Management System to be guided by the senior management at TÜMAD.
- Make sure that the findings from audits, measurement results, compliance assessments, incident/accident reports, investigation reports etc. are taken into account within and incorporated into related performance improvement plans.
- TÜMAD General Manager shall be responsible for the implementation of this Component.

Additional Documents:

- Management System Review Procedure (TMD_EYS_PRD.007)

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	26/90

7.4 Review and Update of this Plan

This Framework shall be maintained and kept up-to-date so that it reflects the life cycle of the project and operations. This plan shall be reviewed at least every year or when substantial amendments are deemed necessary, whichever is earlier (Management Review Procedure (TMD_KAL_PRD.001).

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	27/90

8 MONITORING

Table 3- A Summary of Monitoring and Management Plan Details for both the Lapseki and Ivrendi Projects

ENVIRONMENTAL PLANS				
AIR QUALITY MANAGEMENT PLAN				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
AQM-LAP-03	PM ₁₀ 5 different points	Period: 24 hours Frequency: 6 Monthly	Environmental Department	The locations are including the sensitive receptors and potential areas to be impacted as stipulated by the air emission modelling study for construction and operations of the mine.
AQM-LAP-04	PM _{2.5} 5 different points	Period: 24 hours Frequency: 6 Monthly	Environmental Department	The locations are including the sensitive receptors and potential areas to be impacted as stipulated by the air emission modelling study for construction and operations of the mine.
AQM-LAP-05	Heavy metal in Particulate matter 5 different points	Period: 24 hours Frequency: 6 Monthly	Environmental Department	The locations are including the sensitive receptors and potential areas to be impacted as stipulated by the air emission modelling study for construction and operations of the mine.
AQM-LAP-06	SO _x and NO _x 8 different points	Period: 2 Months Frequency: 6 Monthly	Environmental Department	The locations are including the sensitive receptors and potential areas to be impacted by the mining operations.
AQM-LAP-07	PM ₁₀ 2 points	Period: Continuous Frequency: Continuous	Environmental Department	Şahinli Village and inside the plant area. The station inside the Plant area measures the meteorological parameters as well
AQM-LAP-08	HCN 3 points	Period: Continuous Frequency: Continuous	Environmental Department	Within the Facility (Leach area) 2 separate locations in Şahinli
AQM-IVR-03	PM ₁₀ 4 different points	Period: 24 hours Frequency: 6 Monthly	Environmental Department	Değirmenbaşı, Küçükılıca and Karadere Villages and one in the plant area. The locations are including the sensitive receptors and potential areas to be impacted as

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	28/90

				stipulated by the air emission modelling study for construction and operations of the mine.
AQM-IVR-04	PM _{2.5} 4 different points	Period: 24 hours Frequency: 6 Monthly	Environmental Department	Değirmenbaşı, Küçükkılıca and Karadere Villages and one in the plant area. The locations are including the sensitive receptors and potential areas to be impacted as stipulated by the air emission modelling study for construction and operations of the mine.
AQM-IVR-05	Heavy metal in Particulate matter 4 different points	Period: 24 hours Frequency: 6 Monthly	Environmental Department	Değirmenbaşı, Küçükkılıca and Karadere Villages and one in the plant area. The locations are including the sensitive receptors and potential areas to be impacted as stipulated by the air emission modelling study for construction and operations of the mine.
AQM-IVR-06	SO _x and NO _x 6 different points	Period: 2 Months Frequency: 6 Monthly	Environmental Department	Değirmenbaşı and Küçükkılıca Villages and four in the plant area. The locations are including the sensitive receptors and potential areas to be impacted by the mining operations.
AQM-IVR-07	PM ₁₀ 2 points	Period: Continuous Frequency: Continuous	Environmental Department	Not decided yet
AQM-IVR-08	HCN 3 points	Period: Continuous Frequency: Continuous	Environmental Department	Not decided yet
NOISE AND VIBRATION MANAGEMENT PLAN				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
NVM-01	Noise Level	Monthly, including daytime, evening and night readings Instant during blasting	Environmental Department	In the vicinity of Sensitive Receptors; at Şahinli (at two points) and Kocabaşlar Villages (at two points) for Lapseki Küçükkılıca, Karadere and Değirmenbaşı Villages for İvrindi These locations correspond to the baseline measurement locations in the EIA. According to the local grievance additional measurement locations will be located

				No grievance has been raised during completed construction phase of Lapseki
NVM-02	Noise Spectrum	Monthly, including Daytime, Evening and Night readings	Environmental Department	<p>In the vicinity of Sensitive Receptors; at Şahinli (at two points) and Kocabaşlar Villages (at two points) for Lapseki</p> <p>Küçükılıca, Karadere and Değirmenbaşı Villages for İvrindi</p> <p>These locations correspond to the baseline measurement locations in the EIA.</p> <p>According to the local grievance additional measurement locations will be located</p> <p>No grievance has been raised during completed construction phase of Lapseki</p>
NVM-03	Blasting Noise and Vibration	Instant during blasting	Environmental Department	<p>In the vicinity of Sensitive Receptors; at Şahinli (at two points) and Kocabaşlar Villages (at two points) for Lapseki</p> <p>Küçükılıca, Karadere and Değirmenbaşı Villages for İvrindi</p> <p>These locations correspond to the baseline measurement locations in the EIA.</p> <p>According to the local grievance additional measurement locations will be located</p> <p>No grievance has been raised during completed construction phase of Lapseki</p>
CYANIDE MANAGEMENT PLAN				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
CMP-01	Worker Safety	Continuous	Environmental Department OHS Manager	<p>Continuous monitoring of Hydrogen Cyanide atmospheric concentration. Threshold limit value is 10 ppm (11mg/m3 Drager Multi Warn II Gas Measurement Device Instruction Manual (TMD_LAP_İSG_TLM.008). Personal Gas Measurement Device Instruction Manual (TMD_LAP_İSG_TLM.007)Hydrogen</p>

				Cyanide Gas Measurement Record Form (TMD_LAP_İSG_FRM.016), HCN Gas Measurement Device Calibration Form (TMD_LAP_İSG_FRM.017)
CMP-02	Environmental Levels (inside and outside the site)	Periodic	Environmental Department	Monitoring of groundwater and surface water quality including cyanide concentrations, which have been determined in Water Resources Management Plan TMD_CEV_PLN.003
CMP-03	Environmental Levels (inside and outside the site)	Periodic	Environmental Department	Water Total Cyanide (TCN) and weak acid dissociable Cyanide (WADCN) shall be monitored at Kestanelik Stream on the downstream direction and the ground water observation wells, which have been specified in Water Resources Management Plan for Lapseki and İvrindi Projects.
CMP-04	Atmospheric Emissions	Continuous	Environmental Department	Atmospheric emissions from ADR plant and Solid Waste Storage Area, which have been specified in Air Quality Management Plan TMD_CEV_PLN.006, shall be continuously monitored, and HCN concentrations shall be maintained below the limit value of 5 m/Nm ³ which is specified in the IAPCR (Industrial Air Pollution Control Regulation).

WASTE MANAGEMENT PLAN

No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
WM-01	Sampling from Biological Waste Water Treatment Plant	Within durations given in the scope of the Environmental Permit	Environmental Department Accredited Laboratory	-
WM-02	Soil Contamination Analyses	Every 6 Months	Environmental Department	-
WM-03	Top Soil Analyses	When deemed necessary/Visual Inspection	Environmental/Related Departments	-
WM-04	Categorical Analysis of Waste Oils	Applies Until the Type of Waste Oil Changes	Environmental Department	-

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	31/90

WM-05	Delivery of Vegetable Waste Oils to Licensed Companies	Variable depending on the amount of waste	Environmental Department	-
WM-06	Ensure the Disposal of Hazardous Wastes	Variable depending on the amount of waste	Environmental Department	-
WM-07	Ensure the Recycling of Non-Hazardous Wastes	Variable depending on the amount of waste	Environmental Department	-
WM-08	Delivery of Packaging Wastes to Recycling Companies	Variable depending on the amount of waste	Environmental Department	-
WM-09	Waste Declaration Form	Annually	Environmental Department	-
WM-10	Waste Oil Declaration Form	Annually	Environmental Department	-
WM-11	Applications for Provisional Operating Certificate and Environmental Permit	Every 5 years	Environmental Department Ministry of Environment and Urbanization	-
WM-12	Completion of the Forms for National Waste Transportation during the Delivery of Hazardous Wastes	In Each Delivery	Environmental Department Licensed Transporters Licensed Disposal Companies	-

WATER RESOURCES MANAGEMENT PLAN for LAPSEKİ MİNE

No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
WRM-LAP-01	Surface Water Quality and Quantity	Monthly	Undertaking Requirement & Regulation on Surface Water Quality Management	Surface Water Sources within Area of Impact of the Plant
WRM-LAP-02	Underground Water Quality	Monthly	Undertaking Requirement & By-law on Protection of Underground Waters against Pollution and Deterioration	Observation wells dug at the plant and within the area of impact

WRM-LAP-03	Water Level Measurements in Observation Wells	Weekly	Internal Monitoring	Observation wells dug at the plant and within the area of impact
WRM-LAP-04	Depot, Spring and Fountain Water Quality and Quantity	Monthly	Undertaking Requirement & By-law on Protection of Underground Waters against Pollution and Deterioration	Drinking and usage water sources of settlements nearby the area of impact of the plant
WRM-LAP-05	Discharge Water Quality	Prior to Discharge	Undertaking Requirement & By-law on Control of Water Pollution	In biological treatment system and settling basins
WRM-LAP-06	ARD Leachate Quality	Monthly	Undertaking Requirement & By-law on Control of Water Pollution	Field Kinetic Tests Barrels (ARD Monitoring)
WRM-LAP-07	Contact water/Sedimentation Pond Water Quality	Monthly	Undertaking Requirement & Regulation on Surface Water Quality Management	at settling basins
WRM-LAP-08	Sampling at the Biological Wastewater Treatment Plant	In Periods Determined in the scope of Environmental Permit	By-law on Control of Water Pollution & Environmental Permit and License Regulation (in the scope of Environmental Permit)	Biological treatment system

Frequency and Parameters to be Monitored during Operation of Lapseki

Measurement Point Type	Measurement Point	Parameter	Construction Phase	Operation Phase	Closure Phase		
					1. Period*	2. Period*	3. Period*
Weir Point	Kovanlık Dere Weir	Flow	Continuous	Continuous	Continuous	Continuous	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
Surface Waters	Kestanelik Dere memba (KesMb) ve Mansap (KesMp), Kovanlık Dere (KovD) MSY Mevkii (MSY)	Flow	Continuous (using prob)	Continuous (using prob)	Continuous (using prob)	Continuous (using prob)	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters	Quarterly	Quarterly	Quarterly	every sixth month	Yearly

		(Laboratory analysis)					
Groundwater Wells	PGK1, PGK2, TGK1, KEMW4, OGK1, OGK2, ŞahK,	Groundwater level	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly
Catchments & Depots	ŞahDK, ATK, KocD Catchment and Village Depots	Flow	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly
Fountains	Alanpınar, Baklacı, Yetimçeşme and Kızılcapınar Fountains	Flow	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly
Water Quality, Quantity and Water Use of the Villages	Şahinli and Kocabaşlar Villages and water pipelines	Flow / Volume	Continuous	Continuous	Continuous	Continuous	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly
Collection Ponds	settlement ponds at the waste rock dump, DTSF and Pits	Flow / Volume	Continuous (using prob)	Continuous (using prob)	Continuous (using prob)	Continuous (using prob)	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly

		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly
*Program for monitoring groundwater, surface water and resources (each period shows a period of 5 years at closure phase) Notes: 1. Period: first 5 years after closing, 10 years after closing 2nd period, 15 years after closing 3rd period							
ARD Monitoring Program for Lapseki							
Stage of the Project	Component	Monitoring Spot	Monitoring Method	Parameter	Purpose		
Construction and operation period	Waste rock and open-pit surface lithology	Selected rock samples and/or existing barrel samples	Evaluation of updated results of on-going barrel tests Conduct tests on new lithology groups observed during mining	Evaluation of the data of acid generation speed, metal leachate generation rate obtained over the longer period pH, Alkalinity, Acidity, Conductivity, Metals, Anions	Update open-pit and waste rock dump closure plans and waste rock management plans Comparison with pre-operation test results and refining the ARD monitoring and mitigation plans		
			Conduct further tests on transition samples	Acid generation and neutralization potentials, state of metal leachate generation	Analysis of rocks which have potential to generate ARD or which will be used for neutralization		
Operation period	Waste Rock	Continuous Sampling during operation	Conduct tests on rock samples during mining, blasting etc	Sulfur Content	Identify PAG and NAG rocks during operation and manage and update encapsulate plans		
Operation period	Geologic/block model	Waste rock lithology and open-pit surface lithology	Evaluation of updated geologic model	NAG-PAG material volume update	Operational waste rock management and obtaining of final closure planning		
			Evaluation of PAG rock percentage that will be exposed on the pits walls				
			Evaluation of NAG and PAG material volumes and comparison with the plans				

Operation period	Quality of contact water obtained at the site	Waste rock dump leachates and open-pit surfaces contact waters Discharge Water Quality Barrel Tests results	Site measurements and sampling Evaluation and update of water quality predictions based on site monitoring, new test results and updated geological models, PAG-NAG material volumes	pH, EC, ORP, measurements and chemical analyses	Comparisons with the results of the water quality estimation models, and operational waste rock management and closure planning
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WATER RESOURCES MANAGEMENT PLAN for İVRİNDİ MINE

No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
WRM-IVR-01	Surface Water Quality and Quantity	Monthly	Undertaking Requirement & Regulation on Surface Water Quality Management	Surface Water Sources within Area of Impact of the Plant
WRM- IVR-02	Groundwater Quality	Monthly	Undertaking Requirement & By-law on Protection of Groundwaters against Pollution and Deterioration	Observation wells dug at the plant and within the area of impact
WRM- IVR-03	Water Level Measurements in Observation Wells	Weekly	Internal Monitoring	Observation wells dug at the plant and within the area of impact
WRM- IVR-04	Spring and Fountain Water Quality	Monthly	Undertaking Requirement & By-law on Protection of Groundwaters against Pollution and Deterioration	Drinking water sources of settlements nearby the area of impact of the plant
WRM- IVR-05	Discharge Water Quality	Prior to Discharge	Undertaking Requirement & By-law on Control of Water Pollution	In biological treatment system and settling basins
WRM- IVR-06	Leachate Quality	Monthly	Undertaking Requirement & By-law on Control of Water Pollution	Field Kinetic Tests Barrels (ARD Monitoring)
WRM- IVR-07	Drainage Basin Quality	Monthly	Undertaking Requirement & Regulation on Surface Water Quality Management	at settling basins

Frequency and Parameters to be Monitored during Operation of İvrindi							
Measurement Point Type	Measurement Point	Parameter	Construction Phase	Operation Phase	Closure Phase		
					1. Period*	2. Period*	3. Period*
Weir Point	Madra Dere Weir (İMSV)	Flow	Continuous	Continuous	Continuous	Continuous	Yearly
	Sıpacı Dere Weir	Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	Every sixth month	Yearly
Surface Waters	SW01, SW03, SW04, SW07, SW07, SW08, SW09, SW10, SW11	Flow	Continuous (using prob)	Continuous (using prob)	Continuous (using prob)	Continuous (using prob)	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly
Groundwater Wells	GK01, GK02, GK03, GK04, GK08, GK09, GK10, GK11, GK12, GK13, GK14, GK16, GK20, GK21, PW-22	Groundwater level	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly
Source and Fountains	Kuzu Çeşme, Karabacak Çeşme, Arıcılar Çeşme, Suluktutan Çeşme, Sıra Çeşme, SP8, SP11, SP7	Flow	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
Important Sources and Fountains	Düdüklü Kaynağı, İsale Çeşme, Değirmenbaşı Village Depot	Flow	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly

Collection Pools	Lower and upper drainage pools at the exit of the Waste Area, settlement pools	Flow	Continuous (using prob)	Continuous (using prob)	Continuous (using prob)	Continuous (using prob)	Yearly
		Field parameters (T, pH, EC)	Monthly	Monthly	Quarterly	every sixth month	Yearly
		Chemical parameters (Laboratory analysis)	Quarterly	Quarterly	Quarterly	every sixth month	Yearly
Program for monitoring groundwater, surface water and resources (each period shows a period of 5 years at closure phase) Notes: 1. Period: first 5 years after closing, 10 years after closing 2nd period, 15 years after closing 3rd period							
ARD Monitoring Program for İvrindi							
Stage of the Project	Component	Monitoring Spot	Monitoring Method	Parameter			
Before the construction period	Land-scale kinetic test canister	Leachate samples	Kinetic Test Analysis in Samples	pH, Alkalinity, Acidity, Conductivity, Metals, Anions			
Operation period	Open-pit geologic/block model	Waste rock lithology and open-pit surface lithology	Evaluation of updated geologic model	Monitoring of amounts and rates of mine lithology			
Construction and operation period	Waste rock and open-pit surface lithology	Selected rock samples	Static analyses	Acid generation and neutralization potentials, state of metal leachate generation			
Construction and operation period	Waste rock and open-pit surface lithology	Selected rock samples and/or existing kinetic analysis samples	Evaluation of updated results of on-going kinetic analyses	Evaluation of the data of acid generation speed, metal leachate generation rate obtained over the longer period			
Operation period	Waste Rock	Continuous Sampling during operation	Conduct tests on rock samples during mining, blasting etc	Sulfur Content			
Operation period	Quality of contact water obtained at the site	Waste rock dump leachates and open-pit surfaces contract waters	Site measurements and sampling	pH, EC, ORP, measurements and chemical analyses			

HEALTH & SAFETY PLANS				
TRAFFIC MANAGEMENT PLAN				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
TMP-01	Speed Limits	Continuous monitoring	Head of OHS Department	Speed limits will be monitored using GPS vehicle tracking systems which will be installed on all TUMAD vehicles and will be required on contractor vehicles where necessary and practicable. Drivers found speeding will be subject to disciplinary action
TMP-02	Accidents/Incidents	Daily	Head of OHS Department	All TUMAD drivers will be required to report all report any type of road traffic accident including human harm, animal harm, property damage and, spillages (i.e. chemicals)
TMP-03	Driver Competency and Training	Records maintained and up to date	Head of OHS Department	All TUMAD and contractor drivers will comply with the minimum driver training requirements defined by TUMAD. All drivers will be required to hold a valid Turkish driving license as well as having attended required TUMAD training courses and holding appropriate internal permits. Chemical Suppliers will provide evidence to TUMAD of similar training for drivers.
TMP-04	Contractor Management	Prior to a contractor's initial appointment and then on daily and weekly basis. This frequency can be adjusted depending on contractor's performance over time.	Contractor's Manager	TUMAD will establish an inspection and audit programme to assess contractors' performance with respect to Transport Management Plan, including: - Review of Contractors' ability to meet the requirements of this plan prior to appointment -Contractors' emergency response procedure (including actions to be undertaken by drivers) -Audit of driver competency -Vehicle equipment and maintenance records (daily) - Drivers' training records.

TMP-05	Inspections	Following road construction and/or upgrading and In the event of a complaint	Head of Environment	Visual inspection, by the TÜMAD Head of Environment of dust levels, particularly during construction, along the haulage routes and in particular at sensitive locations e.g. residential areas.
TMP-06	Impact on Communities	On-going	Head of Community Relations Department	TÜMAD will continue to engage with local communities adjacent to haulage routes (specifically the bypass road and site access road) to establish the extent of impact caused by Project traffic.
TMP-07	Road Infrastructure	On-going	Operations Manager	Arrangement and design on routes and upgrades. Identify and install, in consultation with relevant authorities, all necessary warning signage on public roads that are used for Project transportation.
TMP-08	Traffic	Annually	Head of Community Relations Department	Community awareness and road safety training programme to be developed and implemented.
TMP-09	Traffic	On-going	Security and OHS Departments	Manage the day-to-day delivery of materials and entry of vehicles onto the site.
TMP-10	Traffic	On-going	Drivers/ Head of OHS and Environments	Cover all dump truck loads with tarpaulins to minimise dust.
TMP-11	Traffic	As per legally required/ manufacturer requirements	Maintenance and Repair Department	Vehicles will be maintained in accordance with manufacturer guidelines and Turkish licensing requirements and periodic verification inspections will be undertaken.
TMP-12	Fit for Work	On-going	Head of OHS Department	All drivers must be fit for work. Employees must not drive after consuming alcoholic beverages and illegal drugs.

EXPLOSIVES and HAZARDOUS MATERIALS MANAGEMENT PLAN				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
EHM-01	Inventory of Hazardous Materials, Volumes of Hazardous Materials	Continuously	Security	Target: All hazardous materials are recorded.
EHM-02	<p>Daily check of storage areas</p> <ul style="list-style-type: none"> Evidences of past/current spills (major staining, sign of stressed vegetation, pool of liquids, shining on water surfaces) SDS available for chemicals Proper and adequate firefighting equipment Restricted access Safety signs in place Sufficient ventilation Suitable spill clean-up materials in place All containers (tanks, drums, etc.) properly closed and adequately stable to avoid liquid overflow Gas cylinders stored in a dedicated ventilated area, vertically, attached, protected from any risk of fall, repaired from direct sunlight and heat sources. Each type of gas cylinders stored in separated groups, according to their content. Fuel and combustible gas cylinders must be stored in separate locations. <p>Condition of the secondary containments.</p>	Daily	Appointed personnel from Environmental/OHS Department	Target: No spills, all conditions are met
EHM-03	Incident Reports/Investigation Reports	When happens	OHS and Environment Departments	Target: Minimize with a target zero per year
EHM-04	Explosives, blasting, vibration, and noise monitoring Reports	Daily, Weekly, Monthly and Annual Reports	Head of Environment and OHS	Target: Legal limits are not exceeded

EHM-05	Number of grievances received from workers, subcontractors and community members regarding the management of explosives and hazardous materials	Continuously	Head of Environment Head of OHS Head of Community Relations	Target: Minimize with a target zero per year
COMMUNITY HEALTH & SAFETY SECURITY MANAGEMENT PLAN				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
CHSS-01	Communicable Diseases The changes in the trend of the health statistical data. Number of health training sessions run with local community.	Annual	OHS Manager, Occupational Physician CR Manager	-
CHSS-02	Cyanide Use Number of grievances regarding cyanide use.	Continuous	OHS Manager, CR Manager	-
CHSS-03	Traffic Number of grievances regarding traffic Number of recorded traffic incidents involving community members Number of drivers and community members involved in road safety training sessions.	Continuous	OHS Manager, Community Relations Manager	-
CHSS-04	Water Resources Number of grievances regarding water supply.	Continuous	OHS Manager, Community Relations Manager	-
CHSS-05	Dust and Air Quality Number of grievances regarding dust and air quality.	Continuous	OHS Manager, Community Relations Manager	-

CHSS-06	Noise Number of grievances regarding noise.	Continuous	OHS Manager, Community Relations Manager	-
CHSS-07	Vibration Number of grievances regarding vibration	Continuous	OHS Manager, Community Relations Manager	-
CHSS-08	Security Personnel Number of recorded security incidents involving TÜMAD workers and members of the local population. Number of grievances regarding security personnel.	Continuous	OHS Manager, Community Relations Manager	-
CHSS-09	Non-conformances about community health, safety & security measures Number of non-conformances about community health, safety & security measures given in CHSS management plan, inspection /audit reports, site observations.	Continuous	OHS Manager, Community Relations Manager Environmental Manager	-

SOCIAL PLANS

CONTRACTOR MANAGEMENT PLAN

No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
CM-01	Completion of Contractor Selection Process, Defined Project Standards Due Diligence outcomes according to Preliminary Qualification and Selection on the contractors Contracts including risk assessment and H&S Management Plan, Contractors Handbook	Every 3 month	Head of Purchasing Department Operations Manager	-

CM-02	Contractors mobilization Pre-start meeting minutes Contractors Equipment/vehicle inspection reports Contractors Training records Contractors Medical certificates Contractors H&S Management Plans Safety Data Sheets	Before mobilization/Every 3 month	Head of Environment, OHS	-
CM-03	Work Management TÜMAD's regular monitoring - reports, inspections and controls Non-conformance and incident investigation reports Refresher trainings Feedback provided to contractors	Routine (Daily/weekly/ monthly)	Head of Purchasing Department Operations Manager	-

LABOUR MANAGEMENT PLAN

No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
LMP-01	Employment Analysis of records of male/female workforce ratio, including those in managerial positions (supervisors and above)	Annual	HR Department	
LMP-02	Employment Analysis of records of local/regional /national workforce ratio	Annual	HR Department CR Manager	-
LMP-03	Employment Number of worker grievances submitted, processed and resolved	Annual	HR Department CR Manager	-
LMP-04	Training	Annual	HR Department	-

	Percentage of employees completing mandatory training as outlined in Personal Training Profiles and the Annual Training Plan			
LMP-05	Implementation Number of cases of discrimination or harassment reported	Annual	HR Department	-
LMP-06	Implementation Review of procedure implementation records	Annual	HR Department	-
LMP-07	Contractor Compliance through regular labour audits/OHS inspections Review of records by TUMAD	Quarterly construction Annual (Operations)	HR Department	-

LOCAL PROCUREMENT MANAGEMENT PLAN

No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
LPM-01	Local purchase, Monitoring the purchase records considering percentages values of in-country, Project Regions and Project affected villages.	Every 3 month	Head of Purchasing Department	
LPM-02	Supplier Management Evaluation records of the suppliers according to TÜMAD management controls in line with the Procurement Procedures TMD_TIC_PRD.001, Supplier Evaluation Procedure, TMD_TIC_PRD.005	Every 3 month	Head of Purchasing Department Operations Manager	

STAKEHOLDER ENGAGEMENT PLAN - for LAPSEKİ MINE				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
SEP-LAP-01	Community Complaints	Monthly	Head of CR Department	<p>TUMAD will review Grievance Log/Database, including complaints <i>closed</i> and those <i>unresolved</i> per period (at a minimum monthly but more likely as they occur) to include:</p> <ul style="list-style-type: none"> number of outstanding complaints and grievances opened in the month; number of complaints and grievances opened in the month and evolution since Project start (graphic presentation); number of complaints grievances closed in the month; and type of grievance. <p>The TÜMAD CR team will provide regular reporting back to the community on the treatment of community grievances (including the type of grievance, how they have been addressed and the outcomes arising). An annual audit will be conducted of the Grievance Procedure.</p> <p>The Mediation Committee will be used to facilitate the implementation and monitoring of the Grievance Procedure.</p>
SEP-LAP-02	Visitors to TÜMAD Çanakkale office	Monthly	Head of CR Department	Community Relations Officers record visitors to TUMAD offices and report in Monthly Departmental performance report. Include visitor numbers, type of visitor, reason for visit etc.
SEP-LAP-03	Community engagement activities	Monthly 6 monthly	Head of CR Department	Community Relations Officers record formal and informal engagement with local communities in Stakeholder Management System. This will include interactions with committees and working groups. Summarise in Monthly Department performance report. A stakeholder Engagement Tracker will be set up to record and track all engagement activities and actions from those engagements. The

				engagement activities will be reported internally on monthly basis and externally to the lenders on 6 monthly basis Community Monitoring Committee meeting minutes will also reported as part of monthly and 6 monthly monitoring reports.
SEP-LAP-04	Disclosure materials disseminated	Quarterly	Head of CR Department	Community relations staff will keep records of the types of leaflets, brochures, newsletters prepared and distributed, by location and report to the Community Relations Coordinator per period.
SEP-LAP-05	Feedback to local communities	Quarterly	Head of CR Department	The TUMAD Community Relations team will monitor feedback to local communities by developing and implementing a Community Messaging System and Community Diaries.
STAKEHOLDER ENGAGEMENT PLAN - for İVRİNDİ MINE				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
SEP-İVR-01	Community Complaints	Monthly	Head of CR Department	<p>TÜMAD will review Grievance Log/Database, including complaints <i>closed</i> and those <i>unresolved</i> per period (at a minimum monthly but more likely as they occur) to include:</p> <ul style="list-style-type: none"> number of outstanding complaints and grievances opened in the month; number of complaints and grievances opened in the month and evolution since Project start (graphic presentation); number of complaints grievances closed in the month; and type of grievance. <p>The TÜMAD CR team will provide regular reporting back to the community on the treatment of community grievances (including the type of grievance, how they have been addressed and the outcomes arising).</p>

				An annual audit will be conducted of the Grievance Procedure. The Mediation Committee will be used to facilitate the implementation and monitoring of the Grievance Procedure.
SEP-IVR-02	Visitors to TÜMAD Balıkesir office	Monthly	Head of CR Department	Community Relations Officers record visitors to TÜMAD offices and report in Monthly Departmental performance report. Include visitor numbers, type of visitor, reason for visit etc.
SEP-IVR-03	Community engagement activities	Quarterly	Head of CR Department	Community Relations Officers record formal and informal engagement with local communities in Stakeholder Management System. This will include interactions with committees and working groups. Summarise in Monthly Department performance report.
SEP-IVR-04	Disclosure materials disseminated	Quarterly	Head of CR Department	Community relations staff will keep records of the types of leaflets, brochures, newsletters prepared and distributed, by location and report to the Community Relations Coordinator per period.
SEP-IVR-05	Feedback to local communities	Quarterly	Head of CR Department	The TÜMAD Community Relations team will monitor feedback to local communities by developing and implementing a Community Messaging System and Community Diaries.

LIVELIHOOD RESTORATION FRAMEWORK for İVRİNDİ MINE

No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
LRF-IVR-01	Internal monitoring.	Quarterly during the implementation of the LRP and every six months thereafter	Land Acuisiton Manager	Land Acuisiton Manager will evaluate the repotr
LRF-IVR-02	External Monitoring	occur every six months	Land Acuisiton Manager	will be based on both the reports from the internal monitoring and primary research/ consultation with PAPs

ESMS FRAMEWORK for LAPSEKİ & İVRİNDİ PROJECTS	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	48/90

LRF-IVR-03	Completion Audit	After two years, or when the external monitors agree that livelihoods have been restored	Land Acuisiton Manager	The methodology for the Completion Audit will be agreed between the TUMAD and EBRD (see below) the section on Completion Audit.
LRF-IVR-04	<p>Users who have been and will be identified as using pasture and forest land within and surrounding the EIA Permitted Area will be subject to periodic consultation to identify and monitor:</p> <ul style="list-style-type: none"> Alternative areas being used for animal grazing and forest product collection; Any issues with over-grazing or conflict with other affected users over alternative lands; affected land users will be consulted on at least an annual basis, during the summer grazing season. 	<p>Peiodically as per Livelihood Restoration Plan</p> <p>As per Stakeholder Engagement Plan</p>	Land Acuisiton Manager	For Forest and pasture land users displaced from the EIA Permitted Area
LRF-IVR-05	<p>Monitoring of the powerline will require special care and attention.</p> <p>Land owners along the powerline will be subject to monitoring by TUMAD during powerline construction to ensure that all requirements of the Turkish expropriation process have been met and that appropriate compensation has been paid to land owners prior to land being used for construction purposes.</p>	<p>Peiodically as per Livelihood Restoration Plan</p> <p>As per Stakeholder Engagement Plan</p>	Land Acuisiton Manager	Powerline

	<p>With the completion of construction, TÜMAD will start undertaking walk-over inspections of the powerline alignment, consult with land owners and consult with <i>muthars</i> to identify any potential land use and livelihoods issues associated with the operation of the powerline. Monitoring will be undertaken during the first year after construction and during the summer growing season. If no issues are identified, monitoring for land use and livelihoods issues will then cease.</p>			
LRF-IVR-06	<p>Livelihood impacts that will occur through processes other than land acquisition will also require specific attention during the monitoring stage.</p> <p>TÜMAD will install dust measurement instrument at suitable locations surrounding the Project and will take regular photographs during the summer growing season at locations where there is considered to be a risk of real/perceived crop damage due to dust from the Project.</p> <p>If local land users claim for crop damage, this will be processed via the Grievance Procedure and compensation will be agreed based on the area of crops affected, the estimated impact on yield and the market price for crops. TÜMAD will also</p>	<p>Periodically as per Livelihood Restoration Plan</p> <p>As per Stakeholder Engagement Plan</p>	Land Acquisition Manager	Dust Impacts on Adjacent Crops

	investigate the possible causes for dust emissions that may have caused identified crop impacts and will consider potential mitigation measures to prevent impacts from occurring in the future.			
LRF-IVR-07	<p>Users who have been and will be identified as using forest land within and surrounding Road extension corridor will be subject to periodic consultation to identify and monitor:</p> <ul style="list-style-type: none"> Alternative areas being used for animal grazing and forest product collection; Any issues with over-grazing or conflict with other affected users over alternative lands; <p>Affected land users will be consulted on at least an annual basis, during the summer grazing season.</p>	<p>Periodically as per Livelihood Restoration Plan</p> <p>As per Stakeholder Engagement Plan</p>	Land Acuisiton Manager	Road

LIVELIHOOD RESTORATION FRAMEWORK for LAPSEKİ MINE

No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
LRF-LAP-01	Internal monitoring	Quarterly during the implementation of the LRP and every six months thereafter	Land Acuisiton Manager	Land Acuisiton Manager will evaluate the repotrs
LRF-LAP-02	External Monitoring	occur every six months	Land Acuisiton Manager	will be based on both the reports from the internal monitoring and primary research/ consultation with PAPs

LRF-LAP-03	Completion Audit	After two years, or when the external monitors agree that livelihoods have been restored	Land Acuisiton Manager	The methodology for the Completion Audit will be agreed between the TUMAD and EBRD (see below) the section on Completion Audit.
LRF-LAP-04	<p>Users who have been and will be identified as using 2B and forest land within and surrounding the EIA Permitted Area will be subject to periodic consultation to identify and monitor:</p> <ul style="list-style-type: none"> Alternative areas being used for animal grazing and forest product collection; Any issues with over-grazing or conflict with other affected users over alternative lands; <p>Affected land users will be consulted on at least an annual basis, during the summer grazing season.</p>	<p>Peiodically as per Livelihood Restoration Plan</p> <p>As per Stakeholder Engagement Plan</p>	Land Acuisiton Manager	Forest and 2B land users displaced from the EIA Permitted Area
LRF-LAP-05	<p>Monitoring of the powerline will require special care and attention. Land owners along the powerline will be subject to monitoring by TUMAD during powerline construction to ensure that all requirements of the Turkish expropriation process have been met and that appropriate compensation has been paid to land owners prior to land being used for construction purposes.</p>	<p>Peiodically as per Livelihood Restoration Plan</p> <p>As per Stakeholder Engagement Plan</p>	Land Acuisiton Manager	Forest users displaced from the Diversion Channel

	<p>With the completion of construction, TÜMAD will start undertaking walk-over inspections of the powerline alignment, consult with land owners and consult with <i>muthars</i> to identify any potential land use and livelihoods issues associated with the operation of the powerline. Monitoring will be undertaken during the first year after construction and during the summer growing season. If no issues are identified, monitoring for land use and livelihoods issues will then cease.</p>			
LRF-LAP-06	<p>Livelihood impacts that will occur through processes other than land acquisition will also require specific attention during the monitoring stage.</p> <p>TÜMAD will install dust measurement instrument at suitable locations surrounding the Project and will take regular photographs during the summer growing season at locations where there is considered to be a risk of real/perceived crop damage due to dust from the Project.</p> <p>If local land users claim for crop damage, this will be processed via the Grievance Procedure and compensation will be agreed based on the area of crops affected, the estimated impact on yield and the market price for</p>	<p>Periodically as per Livelihood Restoration Plan</p> <p>As per Stakeholder Engagement Plan</p>	Land Acquisition Manager	Dust Impacts on Adjacent Crops

	crops. TÜMAD will also investigate the possible causes for dust emissions that may have caused identified crop impacts and will consider potential mitigation measures to prevent impacts from occurring in the future.			
CULTURAL HERITAGE MANAGEMENT PLAN				
No	Monitoring Field	Period/ Frequency	Responsibility	Remarks
CH-01	Training on the Cultural and Natural Assets and the heritage deemed sacred by the local people	Twice a year during construction, then annually	Head of CR Department	Number of Project personnel and contractor workers trained with Chance Find Procedure (TMD_KTI_PRD.004)
CH-02	Events regarding the cultural heritage	Twice a year during construction, then annually	Head of CR Department	<p>Number of events reported in each monitoring period.</p> <p>All event investigations and attached mitigation measures when necessary and their completion</p> <p>Physical copies of the event reports shall be filed</p>

Table 3 given above, should be read in conjunction with the following documents:

- Water Resources Management Plan,
- Livelihood Restoration Framework and Subsequent Plan,
- Framework Biodiversity Action Plans,
- Offset Strategy Plan, and
- Conceptual Mine Closure Framework.

Table 4: Monitoring Measures from Health and Safety Management Plan

No	Monitoring Field	Monitoring Method	Frequency/Timeline	Purpose	Responsibility
HSM-01	HSE Policy	H&S Policy	Annually	The validity and efficiency of the warranted and signed HSE Policy by field management related to the obligations that should be followed.	IMS and Sustainability Manager OHS Department General Directorate
HSM-02	HSE Targets	HSE Objective and Targets Table	Annually	Setting out measurable targets to monitor the compliance with the legal requirements and TÜMAD Policy and commitments.	IMS and Sustainability Manager OHS Department General Directorate
HSM-03	Compliance with HSE Targets	Monthly H&S reports (HSE statistics) 6 monthly performance reports	Monthly 6 monthly	H&S Targets to be tracked by monthly and annually performance reports.	OHS Department
HSM-04	Compliance with legal requirements	HSE Legal Requirements List	Project beginning Weekly	Identifying any new requirement which would impact the implementations in the Project, TÜMAD to identify necessary measures to comply with all legal requirements.	OHS Department
HSM-05	Identification of H&S issues	Accident/Incident Loss Report, Hazard and Job Safety Proposal Form and Working Area Control Form	Continuously	The noncompliance and actions to prevent reoccurrences to be recorded	OHS Department
HSM-06	Machine and Equipment	Machinery & Equipment Periodic	In time frames stated by the manufacturing company, by	The maintenance and the repairs of Machinery & Equipment should be done by authorized persons only within time frames and with methods stated by the	Maintenance Planning Department

No	Monitoring Field	Monitoring Method	Frequency/Timeline	Purpose	Responsibility
	Maintenance Controls	Maintenance Plan Tracking Schedule	national or international standards	manufacturing company and/or in cases of lack of national standards according to the ones mentioned in international standards for Machinery and Equipment.	
HSM-07	Periodic Checks of Machinery & Equipment	Machinery & Equipment Periodic Maintenance Plan Tracking Schedule	In time frames stated in the Regulation on Safety and Health Conditions in Usage of Work Equipment	Periodic checks by accredited organizations or by the Ministry according to Safety and Health Conditions Regulatory of Work Equipment.	Maintenance Planning Department Accredited institutions
HSM-08	Emergency Action Plan	Emergency Action Plan	Annually When required	To control the efficiency of the existing plan, update it where necessary considering the previous drills, changes in the Project etc.	OHS Department Contractors
HSM-09	Emergency Response Drill	Post Drill Report	Annually	To control the efficiency of the existing plan, to control whether emergency response team is ready for a real crisis situation. Observing the needs for any changes in the Emergency Response Plan.	OHS Department Contractors
HSM-10	Risk Assessments	Risk Assessment Documents	Before the work starts Annually When required	Conducting risk assessment for any activity conducted by TÜMAD and ensuring that all control measures are taken to eliminate/reduce risk to acceptable levels. To ensure all Contractors have appropriate risk assessment	OHS Department Contractors Section Managers, engineers
HSM-11	Occupational H&S measurements: Dust exposure Noise and vibration Chemical exposure Illumination	Lighting, Noise, Dust, and Vibration Record and Assessment Forms	Frequency and timeline to be decided according to the risk assessments during whole life cycle of the Projects	To ensure personal exposures meet the legal standards. Ensuring necessary measures are taken including engineering and administrative measures.	OHS Department Contractors accredited institutions

No	Monitoring Field	Monitoring Method	Frequency/Timeline	Purpose	Responsibility
HSM-12	Regular H&S site inspections	Inspection Reports	Weekly	Reviews of field safety provisions and of application & rules. Constitutes an entry to HSE Targets	OHS Department Workplace Physician
HSM-13	Personal Protection Equipment	PPE submission forms	Before work starts	All TÜMAD personnel will be provided with suitable personal protective equipment according to the job that they will perform with a submission form. Any contractor personnel who does not have appropriate personal protective equipment will not be allowed to work at Project site.	OHS Department
HSM-14	Health Surveillance	Medical reports	Before work starts Annually When additional examination required	To ensure all workers including Contractors are fit for work. To monitor the worker's health in the long term.	Workplace physician
HSM-15	Legal H&S Training	Training Certificates	Before work starts Annually Refreshed when required legally	Ensure that anyone who works at TÜMAD site have appropriate legal H&S training	OHS Department Workplace physician Contractors
HSM-16	Vocational legal training	Training Certificates	Before work starts	Vocational legal training provided by institutions approved by the ministry	OHS Department Accredited Institutions
HSM-17	H&S TÜMAD Induction training	Training Certificates	Before work starts	All employees to receive TÜMAD induction training to learn about the Project based details including policy, commitments, requirements, emergency response requirements etc.	OHS Department

No	Monitoring Field	Monitoring Method	Frequency/Timeline	Purpose	Responsibility
HSM-18	First Aid Training	Training Certificates	Before work starts	As per First Aid Regulation, adequate number of employees to obtain First Aid Training delivered by institutions approved by the ministry	OHS Department accredited institutions
HSM-19	Emergency Response Team members training	Training Certificates	Before work starts	Appointed personnel to be trained as legally required as per Emergency Response Plan.	OHS Department accredited institutions
HSM-20	H&S technical training (confined space, working at height etc.)	Training Certificates	Before work starts	Personnel to obtain work based training.	OHS Department accredited institutions
HSM-21	Following Training needs	Annual Training Plan	Annually	To identify the training needs and plan for the year	OHS Department
HSM-22	Reporting accidents/incidents	Accident/Incident Loss Reports	Continuously	Legal requirement To identify the causes of the accidents, necessary control measures to prevent reoccurrences.	OHS Department
HSM-23	Chemicals Management	SDS forms, Chemicals database Chemical storage area check lists	Before any chemical enters the site Weekly monitoring of the chemical storage areas	To know the amount and type of chemical available on site To prevent any chemical incidents by regular monitoring	OHS Department Contractors
HSM-24	Vehicle inspections	Daily check will be performed in security before entering the site	Continuously	To ensure that any vehicle entering the site have appropriate documents	Security
HSM-25	Speed limits	GPS vehicle tracking system	Continuously	All time, speed limits will be monitored using GPS vehicle tracking system which will be installed on all TÜMAD vehicle. Drivers found speeding will be	OHS Team and Administrative affairs

No	Monitoring Field	Monitoring Method	Frequency/Timeline	Purpose	Responsibility
				subjected to disciplinary penalty as stated in Disciplinary Procedures	
HSM-26	Occupational H&S Committee	Committee meeting records	Monthly	TÜMAD will set up an occupational health and safety committee at workplaces, where a minimum of fifty employees are employed.	Appointed TÜMAD and contractor employees
HSM-27	Grievances regarding H&S	Grievance records	Continuously	To ensure any grievances form workers, Contractors, community members are recorded and actions are taken to close out the grievances.	OHS Department Community Relations Department

Table 5: Monitoring Measures from Biodiversity Action Plan

Biodiversity Action Plan for LAPSEKİ MINE							
Item	Phase	Measurement/Activiy	Relevant Standard	Resources	Timeline and frequency	Compliance Indicator	Status
MO01	Construction	The development of the construction sites should be monitored weekly in order to avoid footprint creep within and outside the fence line	PR6 par. 7-11-13-16	TUMAD internal resources	Weekly during construction	Record of monitoring - Annual Biodiversity report	Not started
MO02	Construction	On site conservation areas adjacent to active construction sites should be monitored monthly for inadvertent disturbance.	PR6 par. 7-11-13-16	TUMAD internal resources	Monthly during construction	Record of monitoring - Annual Biodiversity report	Not started
MO03	Construction	Dust accumulation in areas characterized by critical habitats and endemic species on-site and within 100 m from the facilities will be monitored every three months in the vegetative season during construction. If excessive dust accumulation or stress signs are noticed, additional site-specific mitigation measures will be applied (e.g. additional dust management measure, temporary dust screens, water spray to clean plants).	PR6 par. 7-11-13-16	TUMAD internal resources	Every three months in the vegetative season (May to November) season during construction	Record of monitoring - Annual Biodiversity report	Not started
MO04	Construction	The presence and spread of invasive flora species will be monitored every three month during the vegetative season, with particular attention to disturbed and restored areas for at least 3 years after the end of the construction phase	PR6 par. 7-11-13-16	TUMAD internal resources in consultation with external vegetation expert	Every three months in the vegetative season (May to November) season during construction	Record of monitoring - Annual Biodiversity report	Not started
MO05	Construction /Operation	Accidents involving wildlife or observations of living animal or carcasses along the access road will be registered. The results of the monitoring will be reviewed periodically and additional mitigation measure to avoid road kill will be taken if needed (e.g. fences, wildlife passages)	PR6 par. 7-11-13-16	TUMAD internal resources in consultation with external wildlife expert	During Construction and Operation	Record of monitoring - Annual Biodiversity report	Not started
MO06	Construction /Operation	Culverts will be regularly monitored (once every three months) to avoid any blockages or erosion that would made them unsuitable for target wildlife.	PR6 par. 7-11-13-16	TUMAD internal resources	Every three months in the vegetative season during	Record of monitoring - Annual	Not started

					construction and operation	Biodiversity report	
MO07	Construction /Operation	Signs of erosions in areas characterize by critical habitats and endemic speices within 100 m from the facilities will be monitored every three months in the vegetative season. If erosion signs are noticed, additional site-specific mitigation measures will be applied (e.g. erosion control mat, additional engineering measures, additional culvert or channels for storm water	PR6 par. 7-11-13-16	TUMAD internal resources in consultation with external vegetation expert	Every three months in the vegetative season (May to November)	Record of monitoring - Annual Biodiversity report	Not started
MO08	Construction /Operation	Monitoring of erosion and accumulation of stagnant water on construction sites and areas cleared of vegetation should be performed monthly during the rainy season (October to April). In case of excessive accumulation of stagnant water or erosion phenomena are observed, additional mitigation measures should be put in place as appropriate in an effective and timely manner (e.g. additional culverts on linear infrastructures, deviation channels, environmental engineering techniques for slope stability)	PR6 par. 7-11-13-16	TUMAD internal resources	Monthly during the rainy season (October to April)	Record of monitoring - Annual Biodiversity report	Not started
MO09	Construction /Operation	Areas progressively restored will be inspected monthly for the first year during the vegetative season, after the first year these areas will be inspected every three month at least for the next three years or until the objective of restoration are achieved, in order to allow for prompt corrective actions if required. The monitoring will aim to assess the development of the planted/seeded species, the vegetation cover and the presence of vegetation stress, invasive species or erosion signs	PR6 par. 7-11-13-16	TUMAD internal resources in consultation with external vegetation expert	Monthly for the first year during the vegetative season (May to November) After the first year every three months during the vegetative season (May to November) at least for the next three years or until the objective of restoration are achieved	Record of monitoring - Annual Biodiversity report	Not started
MO10	Operation	The implementation of the Hazardous Material Management Plan will be monitored and the records on the spill register reviewed. The Hazardous Material Management Plan will be updated regularly as needed.	PR6 par. 7-11-13-16	TUMAD internal resources	During operation	Record of monitoring - Annual Biodiversity report	Not started
Biodiversity Action Plan for İVRİNDİ MINE							
Item	Phase	Measurement/Activiy	Relevant Standard	Resources	Timeline and frequency	Compliance Indicator	Status

MO01	Construction	The development of the construction sites should be monitored weekly in order to avoid footprint creep within and outside the fence line	PR6 par. 7-11-13-16	TUMAD internal resources	Weekly during construction	Record of monitoring - Annual Biodiversity report	Not started
MO02	Construction	On site conservation areas adjacent to active construction sites should be monitored monthly for inadvertent disturbance.	PR6 par. 7-11-13-16	TUMAD internal resources	Monthly during construction	Record of monitoring - Annual Biodiversity report	Not started
MO03	Construction	Dust accumulation in areas characterized by critical habitats and endemic species on-site and within 100 m from the facilities will be monitored every three months in the vegetative season during construction. If excessive dust accumulation or stress signs are noticed, additional site-specific mitigation measures will be applied (e.g. additional dust management measure, temporary dust screens, water spray to clean plants).	PR6 par. 7-11-13-16	TUMAD internal resources	Every three months in the vegetative season (May to November) season during construction	Record of monitoring - Annual Biodiversity report	Not started
MO04	Construction	The presence and spread of invasive flora species will be monitored every three months during the vegetative season, with particular attention to disturbed and restored areas for at least 3 years after the end of the construction phase	PR6 par. 7-11-13-16	TUMAD internal resources in consultation with external vegetation expert	Every three months in the vegetative season (May to November) season during construction	Record of monitoring - Annual Biodiversity report	Not started
MO05	Construction /Operation	Accidents involving wildlife or observations of living animal or carcasses along the access road will be registered. The results of the monitoring will be reviewed periodically and additional mitigation measure to avoid road kill will be taken if needed (e.g. fences, wildlife passages)	PR6 par. 7-11-13-16	TUMAD internal resources in consultation with external wildlife expert	During Construction and Operation	Record of monitoring - Annual Biodiversity report	Not started
MO06	Construction /Operation	Culverts will be regularly monitored (once every three months) to avoid any blockages or erosion that would make them unsuitable for target wildlife.	PR6 par. 7-11-13-16	TUMAD internal resources	Every three months in the vegetative season during construction and operation	Record of monitoring - Annual Biodiversity report	Not started
MO07	Construction /Operation	Signs of erosions in areas characterized by critical habitats and endemic species within 100 m from the facilities will be monitored every three months in the vegetative season. If erosion signs are noticed, additional site-specific mitigation measures will be applied (e.g. erosion control	PR6 par. 7-11-13-16	TUMAD internal resources in consultation with external vegetation expert	Every three months in the vegetative season (May to November)	Record of monitoring - Annual Biodiversity report	Not started

		mat, additional engineering measures, additional culvert or channels for storm water					
MO08	Construction /Operation	Monitoring of erosion and accumulation of stagnant water on construction sites and areas cleared of vegetation should be performed monthly during the rainy season (October to April). In case of excessive accumulation of stagnant water or erosion phenomena are observed, additional mitigation measures should be put in place as appropriate in an effective and timely manner (e.g. additional culverts on linear infrastructures, deviation channels, environmental engineering techniques for slope stability)	PR6 par. 7-11-13-16	TUMAD internal resources	Monthly during the rainy season (October to April)	Record of monitoring - Annual Biodiversity report	Not started
MO09	Construction /Operation	Areas progressively restored will be inspected monthly for the first year during the vegetative season, after the first year these areas will be inspected every three month at least for the next three years or until the objective of restoration are achieved, in order to allow for prompt corrective actions if required. The monitoring will aim to assess the development of the planted/seeded species, the vegetation cover and the presence of vegetation stress, invasive species or erosion signs	PR6 par. 7-11-13-16	TUMAD internal resources in consultation with external vegetation expert	Monthly for the first year during the vegetative season (May to November) After the first year every three months during the vegetative season (May to November) at least for the next three years or until the objective of restoration are achieved	Record of monitoring - Annual Biodiversity report	Not started
MO10	Operation	The implementation of the Hazardous Material Management Plan will be monitored and the records on the spill register reviewed. The Hazardous Material Management Plan will be updated regularly as needed.	PR6 par. 7-11-13-16	TUMAD internal resources	During operation	Record of monitoring - Annual Biodiversity report	Not started

KEY PERFORMANCE INDICATORS

Table 6: Key Performance Indicators

ENVIRONMENTAL PLANS			
AIR QUALITY MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
AQM-KPI-01	Incidents related to Air Quality	Minimizing the number of reported incidents related to air quality and continuous improvement	Annually reported incidents related to air emissions.
AQM-KPI-02	Nonconformity with Air Quality Standards	Maximum Annual Non-conformance: 5	Number of annual non-compliance with Project air quality standards.
AQM-KPI-03	Complaints	Maximum Complaints, Annual: 5	<p>The number of community complaints related to air quality reported in a year.</p> <p>Number of annual community complaints with regard to air emissions.</p> <p>Number of resolved complaints by removing the corresponding air emission source or if it is not possible, by reducing emissions levels and changing work practices.</p>
NOISE AND VIBRATION MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
NVM-KPI-01	Noise and Vibration	Minimizing the number of reported Noise and vibration incidents and continuous improvement.	Annually reported noise and vibration incidents.
NVM-KPI-02	Non-compliance With the Standards	Maximum Non-compliance, Annual: 5	Number of annual non-compliance with noise and vibration standards.

NVM-KPI-03	Complaints	Annual Complaints Within the Scope of Activity 0 Maximum Complaints, Annual: 5	Number of annual community complaints with regard to noise and vibration. Number of resolved complaints by removing the corresponding noise source or if it is not possible, by reducing noise levels and narrowing the work duration.
CYANIDE MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
CMP-KPI-01	Total number of non-compliances with cyanide management and monitoring measures identified in this Plan.	To minimize non-compliances and aim at zero per annum.	Non-conformance Reports
CMP-KPI-02	Number of community complaints from local communities related to cyanide management as recorded in the complaint management system	Zero cyanide management complaint from stakeholders; to reduce number of complaints from internal clients and to provide continuous	Grievance Reports
CMP-KPI-03	Number of reported cyanide incidents	To reduce number of complaints from stakeholders to zero; to aim at zero per annum for the complaints from internal clients	Accident/Incident Reports
WASTE MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
WM-KPI-01	Wastes	WAD Cyanide ≤10ppm	per Hour
WM-KPI-02	Non-compliance With the Standards	Zero non-compliance	Internal investigation monitoring control report and site inspections
WM-KPI-03	Complaints	Zero complaints	Complaints and Feedback Mechanism
WM-KPI-04	ARD	Zero Acid Rock Drainage	Seasonal Barrel Tests

WATER RESOURCES MANAGEMENT PLAN- LAPSEKİ			
No	Key Performance Indicator	Target	Monitoring and Measurement
WRM-LAP-KPI-01	Incidents related to Use of Water Sources	Minimizing the number of reported incidents related to use of sources and constant improvement.	Incidents related to water sources reported in a year.
WRM-LAP-KPI-02	Nonconformity with Water Quality Standards	In the scope of Activities Annual Nonconformity: 0 Maximum Annual Nonconformity: 5	The number of nonconformities not resulting from natural climate conditions and according to Project water quality measured in a year.
WRM-LAP-KPI-03	Complaints	Annual Nonconformity in the scope of Activity 0 Maximum Annual Nonconformity: 5	The number of community complaints related to water quality reported in a year.
WATER RESOURCES MANAGEMENT PLAN- İVRİNDİ			
No	Key Performance Indicator	Target	Monitoring and Measurement
WRM-IVR-KPI-01	Incidents related to Use of Water Sources	Minimizing the number of reported incidents related to use of sources and constant improvement.	Incidents related to water sources reported in a year.
WRM-IVR-KPI-02	Nonconformity with Water Quality Standards	In the scope of Activities Annual Nonconformity: 0 Maximum Annual Nonconformity: 5	The number of nonconformities not resulting from natural climate conditions and according to Project water quality measured in a year.
WRM-IVR-KPI-03	Complaints	Annual Nonconformity in the scope of Activity 0 Maximum Annual Nonconformity: 5	The number of community complaints related to water quality reported in a year.

HEALTH & SAFETY PLANS			
TRAFFIC MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
TMP-KPI-01	Number of drivers found to be exceeding speed limits of driving unsafe	Zero per year	Review of records of driver speeding and reported safety incidents
TMP-KPI-02	Number of road traffic accidents involving: <ul style="list-style-type: none"> • Human harm • Property damage • Wildlife collisions • Spillages 	Minimize with a target of zero per year	Analysis of incident reporting records
TMP-KPI-03	Number of transport related complaints from local communities	Minimize with a target of zero per year	Grievance records
TMP-KPI-04	Reported non-compliances against the mitigation controls identified in this Traffic Management Plan	Minimise and achieve continuous improvement in number of reported non-compliances	NCRs and corrective actions, reports.
EXPLOSIVES and HAZARDOUS MATERIALS MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
EHM-KPI-01	Inventory of Hazardous Materials	All hazardous materials are recorded.	Inventory of Hazardous Materials, Volumes of Hazardous Materials
EHM-KPI-02	Daily check of storage areas	No spills, all conditions are met	Audit/Check Reports

EHM-KPI-03	Record of all incidents/accidents i.e. Spills	Minimize with a target zero per year	Incident Reports/Investigation Reports
EHM-KPI-04	Explosives, blasting, vibration, and noise	Legal limits are not exceeded	Monitoring Reports
EHM-KPI-05	Grievances	Minimize with a target zero per year	Number of grievances received from workers, subcontractors and community members regarding the management of explosives and hazardous materials

COMMUNITY HEALTH & SAFETY SECURITY MANAGEMENT PLAN

No	Key Performance Indicator	Target	Monitoring and Measurement
CHSS-KPI 01	Total number of non-compliances with community health safety & security measures identified in Table 4 of the CHSS Plan.	Minimise and target zero per annum.	Non-compliance reports
CHSS-KPI 02	Number of communicable and non-communicable diseases and injuries.	No significant increase in communicable and non-communicable disease and injury rates per 1,000 residents per annum.	Health statistics
CHSS-KPI 03	Number of community health safety & security complaints from local communities as recorded in the grievance management system.	Minimise and continued improvement in number of community health safety and security related complaints.	Number of grievances
CHSS-KPI-04	Number of reported community health & safety incidents	Minimise and target zero per annum.	Incident/Accident records

EMERGENCY ACTION PLAN for LAPSEKİ MİNE			
No	Key Performance Indicator	Target	Monitoring and Measurement
EAP-LAP-KPI-01	Number of non-compliances	Zero per year	Audit and inspection records Records of emergency drills
EAP-LAP-KPI-02	Number of successful emergency drill	Two per year	Records of emergency drills
EMERGENCY ACTION PLAN for İVRİNDİ MİNE			
No	Key Performance Indicator	Target	Monitoring and Measurement
EAP-IVR-KPI-01	Number of non-compliances	Zero per year	Audit and inspection records Records of emergency drills
EAP-IVR-KPI-02	Number of successful emergency drill	Two per year	Records of emergency drills
SOCIAL PLANS			
CONTRACTOR MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
CM-KPI- 01	The number of contractor OHS and environmental incidents reported (statistics)	Reducing the number of reported incidents and ensuring continuous improvement	The number of contractor incidents reported monthly and annually
CM-KPI-02	The number of recorded community /stakeholder complaints against contractors	Reducing the number of reported complaints and ensuring continuous correction of complaints	The number of complaints reported against contractors monthly and annually.

			(Contact with TÜMAD Department of Community Relations managing the complaint and feedback procedure (TMD_LAP_KTI_PRD.001))
CM-KPI-03	The number of worker complaints against contractors	Reducing the number of reported complaints and ensuring constructive and peaceful working environment	The number of complaints reported against contractors monthly and annually. Complaint and Feedback Procedure (TMD_LAP_KTI_PRD.001)
CM-KPI-04	The number of NCRs/ legal fees and court cases against contractors	Reducing the number of legal fees, and court cases against the Project	The number of NCRs/Fees/ court cases against the project due to contractors activities monthly and annually.
CM-KPI-05	Number of contractors comply with the Project Standards and responsibilities given in section 7 of the plan (Contractor Responsibilities)	%100 compliance with all contractors.	Contractor training records, medical reports, PPE acceptance forms, audit reports
LABOUR MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
LM-KPI-01	Percent of Local People at the Lapseki mine operations	Construction: 100% unskilled workers from local communities. Operation: Area of influence Şahinli, Kocabaşlar, Çamyurt, Dumanlı, Yeniceköy, Subaşı villages; Un-skilled: 100% Semi-skilled: 70% Skilled: 5% Province Sub Province: Canakkale Lapseki Semi-skilled: 30% Skilled: 50	Employment Records
LM-KPI-02	Percent of Local People at the İvrindi mine operations	Construction: Affected Settlements (Değirmenbaşı, Küçükılca, Karadere; Un-skilled: 100% Semi-skilled: 70%	Employment Records

		<p>Skilled: 60% Province Sub Province (İvrindi, Burhaniye-Balıkesir) Un-skilled: - Semi-skilled: 30% Skilled: 30% Operation: Affected Settlements (Değirmenbaşı, Küçükılca, Karadere; Un-skilled: 100% Semi-skilled: 70% Skilled: 5% Province Sub Province (İvrindi, Burhaniye-Balıkesir) Un-skilled: - Semi-skilled: 30% Skilled: 50%</p>	
LM-KPI-03	% of Turkish citizens in the workforce	<p>Construction: 100% of unskilled and semi-skilled workforce and 90% of skilled workforce to be Turkish employees for mining and mining related work. Achieved for Lapseki construction Operation: 100% of all skilled, semi-skilled and unskilled will be Turkish citizens.</p>	Employment Records
LM-KPI-04	Percent of Disabled Personnel in the Labour	<p>Construction: Disabled Personnel percent shall be 3%. (Achieved for Lapseki construction) Operation: Disabled Personnel percent shall be 3%.</p>	Employment Records
LM-KPI-05	Percent of women in the labour force.	<p>Construction: 5% for both mines Achieved for the construction of the Lapseki Project</p>	Employment Records

		Operation: %7 for both mines	
LM-KPI-06	Number of worker grievances not closed out within the target timeframe	Construction and Operation: Zero worker complaint that is not closed within the time frame specified in the procedure No complaints were raised during construction of the Lapseki Project	Grievances Records
LM-KPI-07	Training	Construction: Induction (once a year) Environmental awareness (twice a year) HS (twice a year) Community Relation (twice a year) Professional Competence (once a year) Certification (once a year) First Aid (every five years / twice) (All Achieved for Lapseki Mine) Operation: As per the training plan	Training Records
LOCAL PROCUREMENT MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
LPM-KPI-01	Value of materials and services purchased in-country	%50 of the total purchasing budget	Purchase records
LPM-KPI-02	Value of materials and services purchased in the Region of the Project	% 14	Purchase records
LPM-KPI-03	Value of materials and services purchased from project affected villages.	%6	Purchase records

LPM-KPI-04	Complaints	Maximum Complaints, Annual: 5	The number of community complaints related to air quality reported in a year. Number of annual community complaints with regard to air emissions. Number of resolved complaints by removing the corresponding air emission source or if it is not possible, by reducing emissions levels and changing work practices
LPM-KPI-05	Nonconformity with Project Requirements	Maximum Annual Non-conformance: 5	Number of annual non-compliance with Project requirements
LPM-KPI-06	Payment to local providers on time	% 100 of local providers	Payment records

STAKEHOLDER ENGAGEMENT PLAN for LAPSEKİ MİNE

No	Key Performance Indicator	Target	Monitoring and Measurement
SEP-LAP-KPI-01	Number of community complaints or grievances	Total number reduced year on year	Complaints Log/Database
SEP-LAP-KPI-02	Number complaints resolved within one month	Target of 100%	Complaints Log/Database
SEP-LAP-KPI-03	Reporting back to stakeholders on implementation of the Grievance Procedure	Delivery of regular reports to stakeholders on the outcomes of the Grievance Procedure	Reporting
SEP-LAP-KPI-04	Auditing Grievance Procedure to ensure that it is being implemented and grievances are being adequately addressed.	Bi-annual audit complete Target of 100% of grievances closed out to satisfaction of complainant within one month	Audit report.

STAKEHOLDER ENGAGEMENT PLAN for İVRİNDİ MİNE			
No	Key Performance Indicator	Target	Monitoring and Measurement
SEP-IVR-KPI-01	Number of community complaints or grievances	Total number reduced year on year	Complaints Log/ Database
SEP-IVR-KPI-02	Number complaints resolved within one month	Target of 100%	Complaints Log/ Database
SEP-IVR-KPI-03	Reporting back to stakeholders on implementation of the Grievance Procedure	Delivery of regular reports to stakeholders on the outcomes of the Grievance Procedure	Reporting
SEP-IVR-KPI-04	Auditing Grievance Procedure to ensure that it is being implemented and grievances are being adequately addressed.	Bi-annual audit complete Target of 100% of grievances closed out to satisfaction of complainant within one month	Audit report
CULTURAL HERITAGE MANAGEMENT PLAN			
No	Key Performance Indicator	Target	Monitoring and Measurement
CH-KPI-01	The number of non-compliances against the key management controls given in this Plan in a year	Minimizing the reported number of non-compliances and aiming for zero.	-

CH-KPI-02	The number of grievances regarding the cultural heritage and the sites sacredly important for communities resolved within the target time frame.	<p>Researching the grievances regarding the cultural heritage (disrespect, destruction, removal, sale of the pieces) and carrying out regarding actions.</p> <p>Rapid response to complaints from local communities regarding inappropriate behavior of staff on cultural assets. Performing inspections within the period specified in the TÜMAD Complaint and Feedback Procedure (TMD_KTİ_PRD.001) and performing related actions.</p> <p>Target of 100%</p>	-
COMMUNITY DEVELOPMENT FRAMEWORK			
No	Key Performance Indicator	Target	Monitoring and Measurement
CDP-KPI-01	Percentage of Local Residents in Labour Force	Meet to the terms of TÜMAD's Labour Objectives	-
CDP-KPI-02	Percentage of Disabled People in Labour Force	The rate of disabled employees within labour force will be 3%. All spaces will be properly designed to allow disabled employees to carry out their work comfortably.	-
CDP-KPI-03	Percentage of Women in Labour Force	<p>5% for construction phase (achieved during the construction of Lapseki)</p> <p>7% for operation phase</p>	-
CDP-KPI-04	The number of complaints filed by employees which are not settled within the time period envisaged	Zero complaints filed by employees which are not settled within the time period envisaged as indicated in the procedure	-

CDP-KPI-05	Training Assessments	Obligation to pass all tests with a minimum score of 80 points or higher at the end of trainings Employment of one trainee who has finished vocational competence courses (Successfully)	-
CDP-KPI-06	The number of vocational trainings and/or medical trainings	At least once training course to be organized every year	-
CDP-KPI-07	The number of persons provided attended the vocational trainings and/or medical trainings	Minimum 3% of the population at the directly affected villages	-
CDP-KPI-08	The number of persons employed after vocational training	One trainee per year who displays 100% achievement in the training assessment	-
CDP-KPI-09	The number of persons who have been supported to become a TÜMAD supplier	See above local employment targets	-
CDP-KPI-10	Increase in yearly income of the directly impacted communities (%1)	Increase over 1% through local purchasing and local employment	-
LIVELIHOOD RESTORATION PLAN for LAPSEKİ MINE			
No	Key Performance Indicator	Target	Monitoring and Measurement
LRF-LAP-KPI-01	Agreements with land users in Şahinli and Kocabaşlar, and other identified and affected land users, established and implemented	Establishment of Agreements with land users from both neighbourhoods, and other identified and affected land users, prior to commencement of operations Implementation of restoration actions as agreed	Quarterly monitoring and reporting to displaced households and their neighbourhood muhtars
LRF-LAP-KPI-02	Household incomes restored to equal to or higher than pre-project standards.	Household incomes to have increased by at least consumer price inflation (CPI) in the previous year	Annual surveying of economically displaced households; Completion audit two years after completion of the LRP implementation

LRF-LAP-KPI-03	Number of users of the lands in the affected communities including those affected by associated facilities such as power line, water and roads	All displaced households included in the Livelihoods Restoration Plan	Quarterly monitoring and reporting to displaced householders and their neighbourhood muhtars
LRF-LAP-KPI-04	Total number of households participating in livelihoods restoration activities	All eligible households participating in livelihoods restoration activities as defined in the Entitlements Matrix.	Quarterly monitoring and reporting to displaced householders and their neighbourhood muhtars
LRF-LAP-KPI-05	Grievances related to livelihoods restoration resolved within one month	All complaints resolved within one month after it is recorded	Monthly review of grievance log and stakeholder engagement records

LIVELIHOOD RESTORATION PLAN for İVRİNDİ MINE

No	Key Performance Indicator	Target	Monitoring and Measurement
LRF-İVR-KPI-01	Agreements with land users in Karadere, Küçükılca and Değirmenbaşı, and other identified and affected land users affected by associated facilities, established and implemented	Establishment of Agreements with land users from both neighbourhoods, and other identified and affected land users, prior to commencement of operations Implementation of restoration actions as agreed	Quarterly monitoring and reporting to displaced households and their neighbourhood muhtars
LRF-İVR-KPI-02	Household incomes restored to equal to or higher than pre-project standards.	Household incomes to have increased by at least consumer price inflation (CPI) in the previous year	Annual surveying of economically displaced households; Completion audit two years after completion of the LRP implementation
LRF-İVR-KPI-03	Number of users of the lands in the affected communities.	All displaced households included in the Livelihoods Restoration Plan	Quarterly monitoring and reporting to displaced householders and their neighbourhood muhtars
LRF-İVR-KPI-04	Total number of households participating in livelihoods restoration activities	All eligible households participating in livelihoods restoration activities as defined in the Entitlements Matrix.	Quarterly monitoring and reporting to displaced householders and their neighbourhood muhtars
LRF-İVR-KPI-05	Grievances related to livelihoods restoration resolved within one month	All complaints resolved within one month after it is recorded	Monthly review of grievance log and stakeholder engagement records

9 REPORTING

Audits, incidents and nonconformities shall be documented and managed pursuant to the Records Management Procedure of TÜMAD (TMD_EYS_PRD.004).

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	78/90

APPENDIX -1 ESMS FRAMEWORK RELATED DOCUMENTS

Health and Safety Policy	: TMD_EYS_POL.001
Environmental Policy	: TMD_EYS_POL.002
Quality Policy	: TMD_KAL_POL.003
Community Relations Policy	: TMD_EYS_POL.004
Supply Chain Policy	: TMD_EYS_POL.005
Human Resources Policy	: TMD_EYS_POL.006
Occupational Health and Safety, Environment and Social Management Policy:	TMD_EYS_POL.007
Field Commitment	: TMD_EYS_POL.008

MANAGEMENT PLANS

Air Quality Management Plan	: TMD_CEV_PLN.006
Framework Biodiversity Action Plan for LAPSEKİ Mine	: Appendix B of Critical Habitat Assessment
Framework Biodiversity Action Plans for İVRİNDİ Mines	: Appendix B of Critical Habitat Assessment
Community Health and Safety Security Plan	: TMD_EYS_PLN.006
Contactor Management Plan	: TMD_ISG_PLN.003
Cyanide Management Plan	: TMD_LAP_CEV_PLN.008
Lapseki Emergency Action Plan	: TMD_LAP_ISG_PLN.002
İvrindi Emergency Action Plan	: TMD_IVR_ISG_PLN.002
Explosives and Hazardous Materials Management Plan	: TMD_ISG_PLN.006
HR Training Plan	: TMD_IK_PLN.001
Labour Management Plan	: TMD_IK_PLN.001
Labour Management Plan	: TMD_IK_PLN.002
Lapseki Livelihood Restoration Framework	: TMD_LAP_IK_PLN.002
İvrindi Livelihood Restoration Framework	: TMD_IVR_IK_PLN.002
Community Development Framework	: TMD_EYS_PLN.007
Conceptual Mine Closure Framework	: TMD_CEV_PLN.001
Noise and Vibration Management Plan	: TMD_CEV_PLN.002
OHS Training Plan	: TMD_ISG_PLN.001
Spill Clean Up Plan	: TMD_LAP_CEV_PLN.009
Lapseki Stakeholder Engagement Plan	: TMD_LAP_EYS_PLN.001
İvrindi Stakeholder Engagement Plan	: TMD_IVR_EYS_PLN.001
Local Procurement Management Plan	: TMD_EYS_PLN.005
Traffic Management Plan	: TMD_ISG_PLN.005
Health and Safety Management Plan	: TMD_ISG_PLN.007
Waste Management Plan	: TMD_CEV_PLN.004
Lapseki Water Resources Management Plan	: TMD_LAP_CEV_PLN.003
İvrindi Water Resources Management Plan	: TMD_IVR_CEV_PLN.003

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	79/90

PROCEDURES

Complaint and Feedback Procedure	: TMD_KTI_PRD.001
Compliance with Legal Legislation Procedures	: TMD_CEV_PRD.001
Cultural Heritage Procedure	: TMD_KTI_PRD.002
Cyanide Storage Procedure	: TMD_LAP_İSG_PRD.010
Cyanide Transport Procedure	: TMD_LAP_İSG_PRD.009
Environment Internal Audit Procedure	: TMD_LAP_CEV_PRD.002
Environment Purpose and Target Procedure	: TMD_LAP_CEV_PRD.001
Fire Extinguisher Control and Replacement Procedure	: TMD_LAP_İSG_PRD.008
Incident Accident Investigation Loss and Reporting Procedure	: TMD_LAP_İSG_PRD.007
Local Community and Cultural Heritage Procedure	: TMD_KTI_PRD.004
Management of Change Procedure	: TMD_EYS_PRD.006
OHS Risk Assessment Procedure	: TMD_LAP_İSG_PRD.003
Risk Assessment Procedure	: TMD_İSG_PRD.002
Sodium Cyanide Preparation and Storage Procedure	: TMD_LAP_İSG_PRD.012
Procedure on Measuring and Monitoring Environmental Activities	: TMD_LAP_CEV_PRD.006
Noise and Vibration Measurement Instructions	: TMD_LAP_CEV_TLM.003
Risk Assessment Tables	: TMD_İSG_LST.001
Hazardous Chemicals Hand Book	: TMD_İSG_ELK.002
Environmental Purpose and Objectives Procedure	: TMD_LAP_PRD_ÇEV.001
Environmental Legal Requirements Follow-Up Procedure	: TMD_LAP_CEV_PRD_.002
Environmental Dimensions Determination Procedure	: TMD_LAP_ÇEV_PRD.003
Environmental Workflow Procedure	: TMD_LAP_ÇEV_PRD.004
Environmental Internal Inspection Procedure	: TMD_LAP_ÇEV_PRD.005
Procedure for Environmental Operations Monitoring	: TMD_CEV_PRD.006
Occupational Health and Safety Training Procedure	: TMD_LAP_İSG_PRD.001
Sub-Contractor Start-up Control and Follow-up Procedure	: TMD_LAP_İSG_PRD.002
OHS Risk Assessment Procedure	: TMD_LAP_İSG_PRD.003
Alcohol and Drug Detection Procedure	: TMD_LAP_İSG_PRD.004
Work Safety Analysis Procedure	: TMD_LAP_İSG_PRD.005
Accident Incident Loss Reporting and Research Procedure	: TMD_LAP_İSG_PRD.007
Fire Extinguisher Supply Control and Replacement Procedure	: TMD_LAP_İSG_PRD.008
Cyanide Conveying Procedure	: TMD_LAP_İSG_PRD.009
Cyanide Storage Procedure	: TMD_LAP_İSG_PRD.010
Cyanide Waste Cleaning Procedure	: TMD_LAP_İSG_PRD.011
Sodium Cyanide Preparation and Storage Procedure	: TMD_LAP_İSG_PRD.012
OHS Target and Objectives Procedure	: TMD_LAP_İSG_PRD.013
Environmental Targets and Objectives Procedure	: TMD_LAP_CEV_PRD.001
OHS Monitoring and Measuring Procedure	: TMD_LAP_İSG_PRD.014
Field Drive Rules Procedure	: TMD_LAP_İSG_PRD.015
Field Drive Rules Authorization Procedure	: TMD_LAP_İSG_PRD.016

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	80/90

Document Control Procedure	: TMD_EYS_PRD.001
Corrective Action Procedure	: TMD_EYS_PRD.002
Engagement and Communication Procedure of Relevant (stakeholders) Parties:	TMD_EYS_PRD.003
Records Management Procedure	: TMD_EYS_PRD.004
Communication And Internal Communication Procedure	: TMD_EYS_PRD.005
Change Management Procedure	: TMD_EYS_PRD.006
Administrative Review Procedure	: TMD_EYS_PRD.007
Calibration Procedure	: TMD_EYS_PRD.008
Internal Communication and Advisory Procedure	: TMD_EYS_PRD.009
Open Pit Measuring Procedure	: TMD_LAP_HRT_PRD.001
Map Measurement Workflow Procedure	: TMD_LAP_HRT_PRD.002
Triangulation-Polygon Plant Procedure	: TMD_LAP_HRT_PRD.003
Vehicle Use Procedure	: TMD_IDR_PRD.001
Assignment Procedure	: TMD_IDR_PRD.002
Selection Placement Procedure	: TMD_İK_PRD.001
HR Training Procedure	: TMD_İK_PRD.002
Temporary External Appointment Procedure	: TMD_İK_PRD.003
Human Resources Discipline Procedure	: TMD_İK_PRD.004
HR Performance Evaluation Procedure	: TMD_İK_PRD.005
HR Vacation Procedure	: TMD_İK_PRD.010
Internal Inspection Activity Procedure	: TMD_KAL_PRD.001
Complaint and Feedback Procedure	: TMD_LAP_KTI_PRD.001
Media Relations Procedure	: TMD_LAP_KTI_PRD.002
Employment of Local People and the Business Support Procedure	: TMD_LAP_KTI_PRD.003
Cultural and Natural Assets Incidental Finding Procedure	: TMD_LAP_KTI_PRD.004
Dissolved Oxygen Measurement Device and Test Rod Calibration Procedure	: TMD_LAP_TES_PRD.001
Purchase Procedure	: TMD_TIC_PRD.001
Import and Export Procedure	: TMD_TIC_PRD.002
Trade Agreements Procedure	: TMD_TIC_PRD.003
Procurement Procedure	: TMD_TIC_PRD.004
Supplier Assessment Procedure	: TMD_TIC_PRD.005

APPENDIX -2 TÜMAD POLICIES

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	82/90

OCCUPATIONAL HEALTH & SAFETY, ENVIRONMENT AND SOCIAL MANAGEMENT POLICY

TÜMAD is committed to work in all its mining and mineral exploration sites with full adherence to following principles to ensure the occupational health and safety of its employees, respect the society and its employees, carry on its activities without causing harm to the environment, and perform perpetual and sustainable gold mining operations with high economic yield:

1. Strict compliance with provisions of applicable law and legislation as well as codes of conduct;
2. Sustainable mining where economic and social development goes hand in hand with environmental protection;
3. Be a preferred and prestigious commercial partner respectful to mutual trust and values that resolves problems between parties, ensures the support of local people to activities, makes sure that the management and employees work with full focus, and attaches great importance to maintenance of honest, scientific, transparent, and efficient communication and relationships.
4. Meet the **standards** at highest level possible in line with expectations of all our stakeholders in our project and production processes, investigate and implement the opportunities of improvement;
5. Design, operate and engineer all preventive actions and the **infrastructure** connected therewith to create and maintain a safe work environment and prevent occupational sickness or injury of employees;
6. Select suitably qualified persons and companies in all personnel recruitment, purchase and subcontracting activities that will act in full **adherence** to occupational safety and environmental management;
7. Ensure that works considered to be high risk according to results of risk assessment are performed only after necessary **measures** are taken to mitigate the risk values to acceptable levels;
8. Implement regular **inspection** and assessment programs, monitor the implementation thereof, and take necessary measures to ensure that opportunities of improvement are put into practice;
9. Seek the opinion of our stakeholders on occupational health, safety and environment with regard to the preparation, production and closing phases of our projects, and give feedback through open and sincere **communication**;
10. Abide by occupational health, safety and environment performance reporting and **report** all accidents;
11. Prevent the purchase, rent and use of **machinery and equipment** that fail to satisfy our occupational safety and environment principles;
12. Reduce the amount of natural resources consumption and ensure the efficient use of natural resources;
13. Reduce waste generation and support the reuse, recycling and recovery of wastes;
14. Raise the awareness of our employees on environment and occupational health and safety through continuous information flow and trainings in order to minimize the behavioural risk factors in safety and environment issues.

The implementation, monitoring and improvement of these principles in occupational health and safety, environment and relations with the public is the responsibility of **ALL OUR EMPLOYEES**.

Our company will continue to operate in compliance with these principles with the aim to become one of the mining companies that exhibit best performance in our country in terms of occupational health, safety and environment.

- **Every accident can be prevented. The target is ZERO accidents!**
- **Environment-friendly mining with the target of ZERO waste!**
- **Happy stakeholders through open, transparent & efficient communication!**

Hasan YÜCEL
General Manager

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	83/90

HEALTH AND SAFETY POLICY

TÜMAD Mining Incorporation is a Turkish mining company which carries out researches and projects on valuable and base metals having mine searching licenses. TÜMAD implements aggregate production.

Our strategy is to create economically efficient large mine production sites in areas having potential without depriving our quality while overseeing nature and environment and respecting humans.

Our goal is to protect and improve our workers' physical and mental health; to serve their training, safety and productivity, to ensure their working environment; following all legislations and international health and safety standards and watching the rapidly changing and developing technologies in mining practices we are running.

To achieve our goals regarding Health and Safety Policy, we commit to accord to all the requirements written below;

- Protecting ecology and minimizing the negative effects in the course of our operations; securing health, life and wealth of our workers and other people who might be affected by our activities.
- Aiming zero injury rate; continually enhancing and developing systematic and proactive working conditions; providing necessary sources and all H&S equipment in convenient order.
- Constituting, applying, controlling, developing and sustaining H&S management system together with the Risk Management process which aims to create opportunities through defining, analyzing, evaluating and taking precautions for all our partners(workers, shareholders, contractors, sub-contractors and our society including national and international workers).
- Uniting all H&S subjects under the roof of our company in the circumstances including research, project developments, mining generalization, procurements, deprivation of rights and closure.
- In the directions of our society's expectations; sustaining our H&S operations by applying legislations and standards and targeting continual developments and enhancements .
- Designing and running all the operations and depending infrastructure to serve a safe working environment and to prevent injuries.
- Providing the trainings to make all our partners work safely, responsibly and accordingly to the policies.
- Starting, running and controlling regular audit and evaluation programs; increasing efficiency through taking advices for enhancements
- Consulting thoughts and views of society and the workers about H&S values, wants and attention at the phases of development, activities and closure. Sharing these acquired knowledge, experience and updates with our partners.
- Establishing open relations to make all our workers adopt H&S awareness and using all necessary trainings to achieve the former. Through this, we aim to take effective precautions and decisions.
- Committing to H&S performance reports. Improving and reaching sustainability through benefiting obtained reports.
- Ensuring all the operations to compose great sustainability level; revising H&S policies, aims and goals.

Hasan Yücel
General Manager

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	84/90

ENVIRONMENTAL POLICY

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Our strategy is to create economically efficient large mine production sites in areas having potential without depriving our quality while overseeing nature and environment and respecting humans.

Our goal is to protect and improve our workers' physical and mental health; to serve their training, safety and productivity, to ensure their working environment; following all legislations and international health and safety standards and watching the rapidly changing and developing technologies in mining practices we are running.

To achieve our goals regarding Health and Safety Policy, we commit to accord to all the requirements written below;

- Developing, applying, improving our sustainable environmental management system which defines, evaluates, and effectively controls our mining operations' environmental dimensions, risks and effects,
- Applying environment-friendly, economic and socially sustainable mining activities,
- Preventing the pollution by implementing convenient cautions and procedures to minimize the negative environmental effects,
- Promoting productivity increment and new tech usage to ensure savings,
- Forming action plans to determine and revise environmental goals of mining activities,
- Working on creating ways to reduce wastes, recycling and reuse,
- Searching for ways to regain the areas which are used whilst and later in mining activities,
- Consulting society's and workers' thoughts about improving, running and closing of mine projects; sharing these knowledge, experience and updates with our shareholders, worker and others involved,
- Providing all trainings to raise awareness of our partners(workers, shareholders, contractors, sub-contractors and our society including national and international workers) about Environmental Policy,
- Revising to adapt the policy to the changing circumstances and new information; renewing and delivering the changes to the related subjects,
- Taking precautions in the direction of Environmental Policy for the relative business partners,
- Conforming to related requirements stated in legislations about the mine site's perimeter dimensions,
- Establishing transparent relations to take efficient decisions and precautions; running procedures to enhance applications about emergencies, incidents, environmental effects and risks,
- Raising awareness about environmental sensitivity by informing local people where operations are held,
- Minimizing the negative externalities, applying risk management, creating permanent solutions to raise our performance on environmental management and sustainability in the places where we are running mining operations,
- Creating perfect structures by checking our environmental goals' convenience by practicing every activity necessary

Hasan Yücel
General Manager

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	85/90

QUALITY POLICY

TÜMAD Mining Incorporation is a Turkish mining company which carries out researches and projects on valuable and base metals having mine searching licenses. TÜMAD implements aggregate production.

Our strategy is to create economically efficient large mine production sites in areas having potential without depriving our quality while overseeing nature and environment and respecting humans.

Our goal is to protect and improve our workers' physical and mental health; to serve their training, safety and productivity, to ensure their working environment; following all legislations and international health and safety standards and watching the rapidly changing and developing technologies in mining practices we are running.

TÜMAD Mining Inc. commits to;

- Have the ISO 9001, ISO 14001, OHSAS 18001 management systems licenses fulfilling the requirements for Health and Safety standards,
- Enhancing the efficiency of the systems and development at the phases of production and aids, providing the necessary sources,
- Applying the regular audit and evaluation programs for enhancements,
- Cooperating with local and international legislations on the matters of environment and H&S; minimizing the danger and risks which may affect the workers, visitors and neighbors of the company in the course of TÜMAD Mining Incorporation's operations,
- Conserving and performing H&S and environment systems through establishments, evaluations and efficient controls for the good of workers, contractors and society,
- Improvements of licensed and skilled personnel, contractors and executives by trainings and education,
- Following and applying technological changes
- Keeping the attention of customers and partners at the highest possible level

Hasan Yücel
General Manager

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	86/90

COMMUNITY RELATIONS POLICY

TÜMAD Mining Incorporation is a Turkish mining company which carries out researches and projects on valuable and base metals having mine searching licenses. Its strategy is to create economically efficient large mine production sites in areas having potential. The goal is to create large scale mine productions sites where economic and social development is united with environmental protection. In this context; its aim is to perform trade, operations and production compatible with national and international law norms in terms of time, amount, place and quality; ensuring most favorable prices.

We are applying these subjects considering below;

- A production system where social approval exists
- Bringing forward solutions based on respect, reciprocal reliability and dialogue in the company and with the local society
- Respecting needs and wants of every member of the society we are working with
- Running our operations while benefiting society we are working with
- Win&win and maximum benefit principle
- Being responsible members of societies we are working with
- Respecting values, views and rights of individuals

We are going to work for constituting relations based on subjects below;

- Open, effective, fair and transparent relations
- To learn from each other
- Reciprocal solidarity and dialogue
- Sharing the success

This policy is going to be run respective to H&S, Environment and Quality Policies of TÜMAD Mining Incorporation

Hasan YÜCEL
General Manager

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	87/90

SUPPLY CHAIN POLICY

TÜMAD Mining Incorporation is a Turkish mining company which carries out researches and projects on valuable and base metals having mine searching licenses. Its strategy is to create economically efficient large mine production sites in areas having potential. The goal is to create large scale mine productions sites where economic and social development is united with environmental protection. In this context; its aim is to perform trade, operations and production compatible with national and international law norms in terms of time, amount, place and quality; ensuring most favorable prices.

- A supply chain which intends to minimize costs
- A system ensuring competition between suppliers,
- A transparent supply chain which is fair, traceable, reportable, sustainable and ethical,
- A planned and integrated supply chain which manages to supply the wants at necessary time, amount and quality,
- A supply chain which is customer oriented; supporting the satisfaction with surveys and interviews,
- A supply chain which is compatible with the values, strategies and vision of the company,
- A supply chain which involves contracts management in coordination with laws department which is coherent with laws and legislations run in the country,
- A supply chain which contributes to every good and services procurements directly or indirectly,
- A supply chain which takes part on goods and services selection together with shareholders,
- A supply chain which supports the company's fair and equal trade related to righteousness and transparency,
- A supply chain which brings about low costs and low store inventory on the standardization of materials, equipment and services supply and procedures,
- A supply chain which has the warrant to emergent procurement in the case of emergencies and abnormal conditions
- A supply chain which embodies laws, management and channeling coordination in examining formal agreements or procurement instructions' conveniency,
- A supply chain which cooperates with Laws Department in finalization of agreements; discussing the demander's(or procurement personnel's) agreement and arranging the outlines,
- A supply chain which maintains convenient behaviour after the Laws Department's approval

Being a prestigious and respected commercial partner ensuring our partners' satisfaction, using a transparent and efficient supply chain policy

TÜMAD Mining Incorporation is going to follow this policy together with H&S and Environmental Quality and Society Relations policies.

Hasan YÜCEL
General Manager

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	88/90

HUMAN RESOURCES POLICY

TÜMAD Madencilik Sanayi ve Ticaret A.Ş. is a Turkish mining group that engages in aggregate production, along with projects and exploration activities directed towards precious and base metals within scope of mining licenses held by the company.

Our strategy is to become one of our country's most significant large-scale gold producers in economic terms by accomplishing sustainable mining projects where economic and social development goes hand in hand with environmental protection, coupled with advanced exploration activities in a manner that respects human and nature without compromising quality at potential mine sites.

Our objective is to meet expectations to the fullest extent possible through mutual dialogue accompanied by an honest, transparent & efficient communication mentality and feedback mechanisms taking into consideration the expectations of our stakeholders in all processes relevant for the realization and management of all our mining activities from mineral exploration to rehabilitation, abide by applicable legislation, and ensure continuous development, improvement and sustainability in the field of mining in line with international occupational health, safety and environmental standards.

- Adopt as principle the use of strategic, continuously renewed, progressive, best practice humans resources approaches and activities that are well-accepted in the mining sector under national and international standards,
- Among the stakeholders, employees are of first priority to TÜMAD acting with the belief that human resources is the real capital,
- Do not make any discrimination or grant any privilege on grounds of ethnic origin, race, language, religion, gender etc. during the process of selection and placement,
- Employ the right person in the right work based on the qualifications (knowledge, skills, attitude) required by that work,
- Equal pay for equal jobs, merit based on success and performance,
- Support the technical, managerial, behavioral knowledge and skills of employees through the analysis, planning and implementation of adequate training activities in line with requirements in order to make the employees achieve high communication skills, capable to take efficient part in team work, open to innovation and development,
- Develop action plans intended for improvement and development by measuring the satisfaction and loyalty levels of employees taking into consideration their suggestions and expectations by performing surveys in every topic imaginable in form of questionnaires, open door, and one-to-one interviews,
- Make tremendous efforts to create a healthy, safe and happy work environment for employees where great importance is attached to ethical values and respect is paid to the balance between private life and work life,
- Put into practice in a synchronized manner all data obtained through performance management and continuous monitoring where the company's objectives spread to all employees starting from the top management, with particular focus on training, development, career, and wage management,
- Talent management on the basis of a global labor force and leader pool comprising successful, qualified, hardworking individuals identified through performance and competence assessment activities,
- Be a company of low circulation which is acclaimed and preferred for both its qualified and newcomer labor force in the mining sector thanks to competent HR practices.

Hasan Yücel
General Manager

ESMS FRAMEWORK	Document No	Rev.	Page
	TMD_EYS_PLN.004	0	89/90

FIELD COMMITMENT

..... We commit to serve sustainable development programs where there is respect, work safety and social responsibilities, to the local society.

We achieved our quality, health&safety, environmental and social goals by;

- Creating and keeping a safe environment for workers,
- Improving licensed and skilled personnel, contractors and executives by trainings and education,
- Including H&S, environmental&social responsibilities, design, planning, procurement, production, maintenance and human relations; integration of all subjects of the company,
- Conserving and performing H&S and environment systems through establishments, evaluations and efficient controls for the good of workers, contractors and society,
- Bringing about standards and always enhancing the opportunities,
- Discussing and finding solutions on workplace dangers, risks and incidents by active participation to daily H&S and environment meetings,
- Consultation with workers and public on requests, values, worries; for enhancements on H&S, environmental, social responsibilities,
- Performing audits and evaluations for improvement,
- Conforming to all valid laws and legislations as minimum standards,
- Advancement of local economic and social standards,
- Improving sustainable development by fair and equal working conditions, peaceful living standards, transparent policies and strengthening public relations

Everyone should;

- Benefit trainings provided and work accordingly to the instructions given,
- Using risk analysis techniques to evaluate workplace dangers,
- Confront unacceptable H&S, environmental risks, dangers,
- Follow written and taught regulations,
- Report each and every H&S, environmental and social issues ASAP,
- Encouraging others to think the same way,
- Work with reciprocal reliability and respecting views and values of local society.

H&S, Environmental Management and Public Relations is the common responsibility of everyone working in the mine site.

Hasan YÜCEL	_____	_____
General Manager	Vice General Manager (Non-Tech)	
Vice General Manager- Technical	Operating Manager	_____
H&S Manager	Environment Manager	_____
Public Relation Manager		_____