

South Asia Co-operative Environment
Programme (SACEP) Plastic free Rivers and Seas
for South Asia (P171269)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN
OF MATERIAL RECOVERY FACILITY
AT KAPAN

GRANTEE : CREASION - NEPAL

Implemented by:



Supported by:



Supported by:



Environmental and Social Management Plan (ESMP)

Collaborative Approach for Preventing Plastic Leakages in Rivers - By CREASION

1. Subproject Information

Subproject Title:	Construction of Material Recovery Facility (MRF) -Kapan
Estimated Cost:	USD 33,350
Start/Completion Date:	1 st Feb 2024 / 31 st Jan 2025

2. Site/Location Description

The proposed MRF site is in Kathmandu Municipality, Ward No. 13, in the Kathmandu District of Bagmati Province (Annex 1). The facility is conveniently located 10 kilometers (km) from Tribhuvan International Airport and has easy access to transportation with paved roads up to the MRF. Similarly, it is 10m away from the Dhobi Khola Riverbank. The geographical coordinates for the facility are Latitude: 27° 45' 29" North latitude and 85° 21' 42" East longitude.

The facility is surrounded by uncultivated agricultural land and factories around it. One side of the facility is separated by the road connecting to Dhobi Khola. It has the minimum level of air and noise pollution which is under the National Standards with P.M10 82.5µg/m³, PM2.5 31.5µg/m³ and 42.1dBA. The proposed project location is found well facilitated with the road access, drinking water facilities, educational institutes, health and other facilities like transportation, markets, industries and recreation centers. The facility lies under the mild subtropical climate zone and with maximum temperature of 34.5 Degree Celsius during peak summer and minimum of 0.4 Degree Celsius during peak winter. It has the record of average annual rainfall of 2750 millimeter (mm). The proposed project location is outside the National Park or the Buffer Zone area of any protected area of the country. Most of the tree species recorded during the field visit near the project area are Monkey Puzzle Tree (*Araucaria araucana*), European nettle tree (*Celtis australis*), Camphor Tree (*Cinnamomum camphora*) etc. Furthermore, nearby (5 Km from the location) Shivapuri National Park is also the home for the many wild flora and fauna. The project location is found to be dominated by the Hindu and Buddhist community with Bahun, Chettri, Newar, Tamang and Magar ethnic groups.

3. Subproject Description and Activities

The primary purpose of the MRF is to collect, sort, and bale the PET plastics into smaller volumes, thereby reducing the amount of plastic waste transportation cost and increasing the recycling efficiency. The proposed MRF aims to collect 500T of PET bottles annually. This facility conserves natural resources, reduces energy consumption, costs and minimizes pollution associated with producing new plastic materials.

The key activity of the MRF is listed below;

A) Construction Phase

1. Land leasing
2. Land clearance and Fencing
3. Excavation and Foundation laying
4. Wall construction
5. Roofing and flooring
6. Staff quarters construction
7. Electric wiring / plumbing and sanitaryware fitting / finishing
8. Gardening and tree plantation

B) Operation Phase

1. Machineries import and fitting
2. Operation of the facility; Sorting and and Baling of PET bottles
3. Generation of solid wastes, wastewater, air pollution
 - I) Solid waste sources: Raw material segregation, office wastes
 - II) Waste water sources: Sewerage
 - III) Air pollution sources: Loading and unloading by transporting trucks, vehicles, Baling machines of PET bottles
4. Transfer sorted and bailed PET to PET Recycling Facility

4. ESMP Matrix: Risk and Impacts, Mitigation, Monitoring

The Environmental and Social Management Plan (ESMP) for the proposed MRF aims to minimize the potential environmental and social risk due to the proposed Material Recovery Facility. Likewise, it also tries to address environmental sustainability and community development through enhanced waste management and economic opportunities. In the Table 1 and 2 of the ESMP, it lists all the potential site specific adverse environmental and social risk and its impact and the parallel mitigation measures to be implemented in both construction and operation phase of the MRF. The identified risk is under the Environmental and Social Standards 1-10 given by the World Bank and the prepared ESMP is based on the ESMP of PLEASE project. The pre-identified this risk will ensure the project efficiency and outcomes.

Table 1 : ESMP for the construction Phase¹

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			Mitigation & monitoring cost
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility	
Acquisition of applicable permits and licenses (urban development permit)	Submission of complete requirements for the processing i.e. Municipal Approval	Project Location/Before construction begins	Focal Person/ CREASION	Compliance to conditions of applicable permits	Monitoring method: Provision of compliance matrix Monitoring period: Prior to start of construction activities	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 1200
Loss of vegetation cover and vegetative soil due to land clearance and preparation	I. Green belt will be developed II. Establishment of garden	Project Location/After Construction period	Environmental Safeguarding Officer	Number of native plants, Survey reports	Monitoring method: Direct Observation Monitoring Period: Monthly	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 400
Vehicular traffic congestion and hindrance to public access due to heavy vehicle movement like material loaded trucks and trippers	The MRF is stationed 5 km meters from the Ring Road which will not impact vehicular movement; I) Proper traffic signs will be installed in and around the MRF sites to caution highway vehicles to speed down II) Introduction and implementation of Transportation Management Plan (TMP)	Project Location/During Material transportation for construction	Contractor/ Environmental Safeguarding Officer	Use and no. of sign boards, Number of vehicular traffic congestion / accidents, Transportation Management Plan (TMP)	Monitoring method: Verification of Transportation Management Plan (TMP) Visual inspection of construction sites. Monitoring period: Daily	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 100

¹ All possible means of reducing risk and impacts would be employed

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			Mitigation & monitoring cost
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility	
Soil Pollution due to Excavation and deposits of mucks, Generation of Construction waste, Debris, and mixed spoils like soil, dirt and rubble	<ul style="list-style-type: none"> I) Precautionary measures will be adopted during the construction such as nets for debris and deposits II) Construction will only take place adhering to the national standards III) Waste stockpiles will be securely placed to prevent wash-off and will be covered with appropriate material IV) Any construction waste and debris generated during the construction will be disposed in permitted municipal disposal site V) Use of proper safety gears for the protection workers and their physical health 	Project Location/Construction period	Environment and Safeguarding Officer/ Infra coordinator	Use of nets/clothes, condition of tools and equipment, Records and accumulation of waste and the disposal	Monitoring method: Direct observation, Site inception Monitoring Period: Monthly	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 250

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			Mitigation & monitoring cost
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility	
Overuse of local water resources cause the community disputes, pressure on local resources	<ol style="list-style-type: none"> I) Given requirement of the water municipal supply will be enough II) Groundwater boring facility development prior to construction 	Project Location/Prior Construction period	Contractor	Water usage records	Monitoring method: Operational Procedures for Construction Management, Monitoring Period: Monthly water usage checks	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 150
Air pollution due to dust from: - <ol style="list-style-type: none"> I. Excavation and earthworks, Loading and unloading of construction materials, II. Emission from diesel generator, Machineries 	<ol style="list-style-type: none"> 1. Precautionary measures will be adopted during the construction such as nets/ Tarpaulin for dust reduction and blowing 2. Construction will only take place during the day adhering to the national standards 3. The loaded material in the truck will be properly covered with a tarpaulin to minimize dust blowing 4. Dust in the surrounding areas will be controlled through water sprinkling. 5. Use proper safety gears like N 95 masks, for the 	Project Location/Construction period and During material storage,	Environment and Safeguarding Officer	Air quality parameters, Air quality (PM 10; PM 2.5, AQI)	Monitoring method: Air Quality Monitoring, Baseline Air Quality Monitoring Report, Air Quality Monitoring Device Monitoring Period: mid-term and end-term of construction	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 100

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			Mitigation & monitoring cost
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility	
<p>like dozer,</p> <p>III. Release of air pollutants and particulate matters and its impacts on the health and safety of the workers and community</p>	<p>protection of the construction workers</p> <p>6. Machines will be maintained in optimal condition to minimize emissions</p>						
<p>Noise and vibrations during construction activities due to excavation activity ,earthworks, Metal and roofing works and tile works and machinery use lead to public nuisance and health</p>	<p>I) Use of Noise proof fence, selection of less Noisy Equipment, and vibration prevention, greenery activities</p> <p>II) Use of suitable safety gears, earplugs, PPE</p> <p>III) Assurance of construction work during the daytime</p>	<p>Project Location/Construction period/Daily</p>	<p>Contractor/Environment and Safeguarding Officer</p>	<p>Noise Level (dB) Monitoring based on National Standards of Nepal 2069 i.e. 65dB for day time and 55dB Night time</p>	<p>Monitoring method: Baseline Data, Direct Observation, Decibel Meter</p> <p>Monitoring method: Daily/Weekly/Monthly</p>	<p>ES Officer Creasion/ UNOPS Country Team</p>	<p>*Included in Project USD 200</p>

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			Mitigation & monitoring cost
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility	
implications for workers	IV) Schedule Work to Control Workers' Exposure to Noise						
Accumulation of solid waste lead to sanitation and hygienic concerns to workers and community, foul smell and water contamination	I) Segregation of solid waste into hazardous, non-hazardous and reusable waste II) Regular disposal of wastes to the designated landfill in coordination with local bodies	Project Location/During and After Construction period/Daily	Contractor/Environment and Safeguarding Officer	Storage area for solid waste Records of regular disposal	Monitoring method: Visual inspection of storage area Verification of records Monitoring period: Daily	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 100
Hazardous chemicals lead to sanitation and hygienic concerns to workers and community, foul smell and water contamination	I) Designated area for the chemical storage as per the instruction given in MSDS II) Use of appropriate PPEs III) Segregation of solid waste into hazardous, non-hazardous and reusable waste IV) Disposal of the hazardous waste according to authorized method	Project Location/During and After Construction period/Daily	Contractor/Environment and Safeguarding Officer	Storage area for chemicals Records of regular disposal	Monitoring method: Visual inspection of storage area Verification of records Monitoring period: Daily	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 100
Theft and vandalism	I) Installation of security measures (fences, cameras)	Project Location/Construction period	Contractor/Environment and Safeguarding Officer	Security incident reports	Monitoring method: Security logs Monitoring period: Daily	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 300

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			Mitigation & monitoring cost
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility	
	II) Provision of security personnel						
Community Health and Safety issue due to occurrence of physical hazards, accidents and injuries	I) Install barriers and signages II) Provision of security personnel to restrict public access III) Operate construction night light at the vicinity of construction sites IV) Provision of adequate safer passageways for the public crossing the construction sites V) Maintaining Accident Registry VI) Provision of First Aid facility	Project Location/Construction period	Contractor/Environment and Safeguarding Officer	Safety control such as signages, lightings, and barriers Health and safety records (near miss, first aid, lost time accident) Presence of security personnel	Monitoring method: Visual inspection of site Monitoring period: Daily	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 200
Complaints Due to Project	I) Establish the approved Project's Grievance Redress Mechanism (GRM), actions and implementation measures to GRM II) Publicize the existence of the Project's GRM through campaigns, websites, billboards, etc.	Project Location/Construction period	Contractor	Number of community complaints	Monitoring method: Grievance Redress Mechanism, Complaint log and implementation measures on received complains Monitoring period: Monthly	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 200

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			Mitigation & monitoring cost
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility	
	III) Ensure that the contact details are placed on notice boards and/or websites						
Occupational Health and Safety	<p>I) Provision of PPE, safety training programs, and group accidental insurance to laborers/employees</p> <p>II) Provision of proper sanitary facilities and safe drinking water</p> <p>III) Safety kits, Emergency Health services, First Aid Kits, Emergency exit doors, and fire extinguishers</p> <p>IV) Provision of workers with adequate and well-ventilated camps, clean eating areas, and separate sleeping</p> <p>V) Separate quarters for male and female workers</p>	Project Location/Construction period	Contractor/ GESI and Safeguarding Officer	Number of incidents, training records; Verification of health and safety plan and records	Monitoring method: Operational Procedures for Construction Management, Safety audits Monitoring Period: Monthly	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 300

Table 2: ESMP for the Operation Phase²

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location & Frequency	Responsibility	Mitigation & monitoring cost
High energy consumption and release of Greenhouse Gases (GHGs) due to use of machineries impacts on resource efficiency and use	<ul style="list-style-type: none"> I) Provision of rainwater harvesting II) Provision of daylight-controlled and motion-controlled lighting fixtures III) Conducting frequent energy audits and conducting measures to optimize the system IV) Incorporating good ventilation in the design to reduce the energy consumed by air conditioning system 	Project location, Water tank, electricity dashboard, Monthly energy usage reports	Operation Officer/Environment and Safeguarding Officer	Energy consumption records, Assessment of carbon footprint reduction	Monitoring method: Energy usage reports, Standard Operation Procedure Monitoring period: Monthly	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 200
Air pollution (vehicular movement, foul smell from decomposition of organic particles attached in the bottle)	<ul style="list-style-type: none"> I) Watering of roads, use of tarps/mesh tarps in vehicles II) The MRF will be constructed in an enclosed space to reduce bad smell. III) Sufficient air ventilation will be provided to ensure proper airflow 	Project location, Generator, Semiannual air quality reports	Environment and Safeguarding Officer	Air quality measurements	Monitoring method: Air quality measurements, Baseline Air Quality Monitoring Report, Semiannual air quality reports Monitoring period: Monthly/semi annual	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 200

² All possible means of reducing risk and impacts would be employed

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location & Frequency	Responsibility	Mitigation & monitoring cost
	IV) Regular servicing, oiling and maintenance of vehicle						
Emission of of pollutants (Baling Machines emission, generator unit)	<p>I) Machineries used in MRF factory (Baling Machines) do not produce any form of fumes or vapor</p> <p>II) Mildly generated dust/emission by baling machines will be overcome by using N-95 masks</p> <p>III) Use of industrial fan to circulate the air into the MRF</p> <p>IV) Work schedule will be developed to reduce the impact of the emission to one worker</p>	Project location, Inside MRF Weekly air quality monitoring (AQI Machine)	Environmental Safeguarding Officer	Emission levels/ Use of mask/workers health checkup records	<p>Monitoring method: Air quality monitoring, Baseline Air Quality Monitoring Report</p> <p>Monitoring Period: Daily/Weekly</p>	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 100
Noise from machinery impacts on health of the workers and public nuisance	<p>I. Use of safety gears, PPE, ear plugs and maintenance of greenery</p> <p>I. Specifying low noise emissions as a requirement for machinery in the bidding process</p>	Generator, Project Location, Machinery, Daily Noise monitoring	Environmental Safeguarding Officer	Noise Level (dB) Monitoring based on National Standards of Nepal 2069 i.e. 65dB for day time and 55dB Night times/Direct observation	<p>Monitoring period: Daily (Mobile device)</p> <p>Monitoring Method: Noise monitoring, Baseline Noise Data</p>	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 500

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location & Frequency	Responsibility	Mitigation & monitoring cost
Sanitation and related issues due to End waste handling and management, organic and sewage waste from washrooms	I) Introducing Standard Operating Procedure (SoP) II) Segregation of solid waste into decomposable, recyclable and non-recyclable waste; III) Decomposable waste will be converted into manure and use in MRF gardens IV) Recyclable waste selling to the respective waste workers V) Proper disposal of non-recyclable waste to the municipal landfill sites VI) Recyclable PET waste will be sent to respective PRF site	Project location, different departments of the project,	Factory Manager	Waste handling records	Monitoring method: Standard Operation Procedure, Waste handling records, Quarterly Waste audits Monitoring period: Quarterly	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 500
Water pollution (Impact on water quality of receiving body of water from discharge of untreated wastewater)	I) Use of septic tank for domestic waste or connect to sewer lines	Project location, water sources, Monthly water quality tests	Environment and Safeguarding Officer	Direct Observations	Monitoring period: Monthly Monitoring method: Direct observations	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 200
Gender discrimination in job opportunity and wage	I) Compliance of Labour Act 2017 to all workers II) Preparation of Non discriminating guidelines for recruitment process and	Project Location/Operation Period/ Daily	Operation officer/ Human Resource Officer/ GESI & Safeguarding Officer	Employee records; Complaint box; Anonymous report; Sex ratio or workers involved; Payment sheet, Guidelines	Monitoring method: Contract Agreement, Labor audits, site inception; Verification of sex ratio of the workers; Survey on Pay scale across	ES Officer Creasion/ UNOPS Country Team	*Included in project USD 100

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location & Frequency	Responsibility	Mitigation & monitoring cost
	<p>operations affecting all level of workers</p> <p>III) Equal wages to male and female workers/employee</p> <p>IV) Anonymous reporting mechanism for gender based violence incidence along with protection measures for individuals who report</p> <p>V) Complain box/issue box installation</p> <p>VI) Timely payment on monthly basis</p> <p>VII) Guidelines on Gender Based Violence (GBV)</p>			on Gender Based Violence (GBV)	different genders and ethnicities		
Occupational Health and Safety Issues	<p>I) Implementation of Occupational Health and safety management plan</p> <p>II) Conducting frequent medical check ups for employee</p> <p>III) Maintaining Accident Registry, Provision of PPE, safety training programs, and group accidental insurance to laborers/employees,</p> <p>IV) Preparation and implementation of Emergency evacuation plan</p>	Project Location, As needed, Monthly safety audits	Environment and Safeguarding Officer/ Infra coordinator / GESI and Safeguarding Officer	Number of incidents, training records	<p>Monitoring period: Monthly</p> <p>Monitoring method: Direct observation, accidents records, safety audits, review of Emergency evacuation plan</p>	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 350

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location & Frequency	Responsibility	Mitigation & monitoring cost
	<p>V) Provision of Safety kits, Emergency Health services, First Aid Kits, Emergency Siren, Emergency exit doors, Installation of adequate fire extinguishers and Fire Hydrant</p> <p>VI) Provision of waste workers with adequate and well-ventilated camps, clean eating areas, and medical checkups</p>						
Sexual Exploitation, Abuse and Harassment	<p>I) Proper safety measures for workers from sexual exploitation, abuse and sexual harassment</p> <p>II) Availability of a separate washroom, and changing room</p> <p>III) Provision of anonymous reporting mechanism with along with protection measures for individuals who report</p> <p>IV) Regular trainings and workshops regarding gender-based violence SEA</p>	Project location / construction period	GESI and Safeguarding Specialist	Direct interviews with workers	<p>Monitoring method: Site observation, direct interviews and group discussion with women workers</p> <p>Monitoring period: Monthly, Depends on Number of complain received and the measures taken</p>	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 500

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location & Frequency	Responsibility	Mitigation & monitoring cost
	and SH identification and mitigations						
Poor working conditions due to insufficient office space, safety gears, pay scale, basic facilities impact on employee morale, productivity, mental health, Hygiene, workers disputes	<ul style="list-style-type: none"> I) Implementation of employee welfare programs like Employees Provident Fund, Allowances II) Regular workshops and trainings to the workers and employee III) Implementation of safer hygienic workplace IV) Availability of the food and the services V) Availability of separate rest room and toilets for the male and female workers 	Project location, Bi-annual surveys	Environment and Safeguarding Officer/ Infra coordinator	Employee satisfaction surveys	Bi-annual surveys Standard Operation Procedure	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 100
Community Health and Safety	<ul style="list-style-type: none"> I. Provision of security personnel to restrict public access II. Operate night light at the vicinity of MRF site III. Installation of Complaint box, availability of the contact number of focal person 	Project Location/Construction period	Operation Manager/GESI and Safeguarding Specialist	Monitoring method: Safety control such as lightings Presence of security personnel, complain box Monitoring period: Monthly	Monitoring method: Visual inspection of site Monitoring period: Daily	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 500

Anticipated E&S Risks & Impacts	Risk Mitigation & Management Measures	Impact Mitigation		Impact/Mitigation Monitoring			
		Location/ Timing/ Frequency	Responsibility	Parameter to be monitored	Methodology, including Location & Frequency	Responsibility	Mitigation & monitoring cost
Complaints Due to Project	<p>I. Establish the approved Project's Grievance Redress Mechanism (GRM) and actions for the GRM</p> <p>II. Publicize the existence of the Project's GRM through campaigns, websites, billboards, etc.</p> <p>III. Ensure that the contact details are placed on notice boards and/or websites</p>	Project Location/Construction period	Operation Manager/GESI and Safeguarding Specialist	Number of community complaints	Monitoring method: Grievance Redress Mechanism, Complaint log and implementation Monitoring period: Monthly	ES Officer Creasion/ UNOPS Country Team	*Included in Project USD 100

5. Capacity Development

CREASION in coordination with local stakeholders will develop a training, capacity-building, and awareness program for all its employees and contractors to implement project ESMP, and other Safeguard Instruments associated with the ESMP of MRF. New employees and contractors will attend mandatory induction sessions covering occupational health and safety, environmental awareness, community engagement, and other relevant topics. This training program will lead to an understanding of the standards to be followed during both construction and operation phase of the MRF. Audio Visual Presentations, newsletters and posters, along with verbal communication during routine briefings, will be utilized to raise awareness on various occupational, health, safety, and community-related issues. This training will be targeted to provide all personnel with information about business continuity and emergency response and planning. Also, during the construction phase, emergency exercises related to earthquakes, fires, accidents, emergency health issues etc. will be planned and implemented. Events such as a work accident, hazardous situation, near-miss in the field will be recorded regularly and the training program will be revised in the light of this information.

CREASION will mandate the orientation and capacity training from the contractor's side for any new employees or the recruitment.

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

- Induction training
- Job-specific expert training (e.g. excavation operators, Machine operations, Safety measures for waste workers)
- Workshops on MRF ESMP indicators and role identification
- Training of Emergency evacuation Plans
- Training on Personal Protective Equipment (PPE)
- Training on Grievance Redress Mechanism (GRM)
- Workshops on Gender Based Violence (GBA)
- Provide training on recognizing, preventing, and responding to SEA and SH
- Compliance and regulatory trainings/workshops

6. Implementation Schedule and Cost Estimates

Mitigation measures for potential environmental and social risks, as outlined in ESMP Tables 1 and 2, along with the corresponding mitigation and monitoring costs and schedules.

7. Attachments

Annex 1	Map of the MRF Project Location, Budhanilkantha Municipality-13
Annex 2	Land Document Kapan with notarized copy-MRF .pdf
Annex 3	Kapan MRF ES Screening.docx
Annex 4	ESF_MRF_JUN_25.xlsx
Annex 5	Kapan MRF Site Map.dwg
Annex 6	Kapan MRF Mitigation Measures Implementation Timeline and Cost Estimates

IV. Review & Approval

Prepared By: Ujjwal Upadhyia and Lila Paudel (Signature) Position: Team Leader / Environment and Safeguarding Officer Date: August 22, 2024	
Reviewed By: Rajendra KHANAL Position: Project Manager- Nepal Date: August 22, 2024 	 Approved By: Kapila Mahesh Rajapaksha, Position: Environment and Social Development Specialist. SACEP Date: 22th August 2024