



Environmental and Social Management Plan (ESMP) Widening / Raising and Improvement of Existing Two Roads Including Installation of Street Lights in Khanewal City MC Khanewal

Revised after Incorporation of WB comments



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ACRONYMS

AHs	Affected Households		Department
BOD	Biological Oxygen Demand	МС	Municipal Corporation/Committee
DPO	Deputy Program Officer	MO-I	Municipal Officer Infrastructure
CO	Chief Officer	MO-P	Municipal Officer Planning
CPMT	Central Program Management Team	NEQS	National Environmental Quality
CTS	Complaints Tracking System		Standards
DPO	Deputy Program Officer	NOC	No Objection Certificate
EHS	Environment Health & Safety	OHS	Occupational Health & Safety
EIA	Environmental Impact Assessment	OPs	Operational Policies
EMMP	Environmental Management and	PAPs	Project Affected Persons
	Monitoring Plan	PC-I	Planning Commission Form-I
EPA	Environment Protection Agency	PCP	Punjab Cities Program
EPD	Environment Protection Department	PCRs	Physical Cultural Resources
ESFPs	Environmental & Social Focal Persons	PD	Project Director
ESM	Environmental & Social Management	PDO	Program Development Objectives
ESMF	Environmental & Social Management	PEPA	Punjab Environment Protection Act
	Framework	PHED	Public Health Engineering Department
ESMP	Environmental & Social Management	PMDFC	Punjab Municipal Development Fund
	Plan		Company
ESMMP	Environmental & Social Management	PMU	Project Management Unit
	and Monitoring Plan	PPEs	Personal Protective Equipment
ESSs	Environmental & Social Safeguards	PO	Program Officer
GoP	Government of the Punjab	RoW	Right of Way
GRC	Grievance Redress Committee	RPF	Resettlement Policy Framework
GRM	Grievance Redress Mechanism	SMP	Social Management Plan
HIV/AIDS	Human Immunodeficiency Virus /	SOPs	Standard Operating Procedures
	Acquired Immune	SPOs	Senior Program Officer
	Deficiency Syndrome	STIs	Site Transmission Infections
HSE	Health Safety & Environment	TORs	Terms of References
IEE	Initial Environmental Examination	WB	World Bank
LG&CD	Local Government & Community		
	Dovelonment		

Development

Executive Summary

Government of Punjab (Govt. of Punjab) sought support from the World Bank for the economic growth of urban sectors in Punjab and launched Punjab Cities Program (PCP). Program is expected to achieve overarching goals of ending poverty and promoting shared prosperity by delivering improved urban infrastructure inclusively and in ways that enhance economic growth and development in the participating cities. The Project has a number of financial, social. economic and environmental benefits, including institutional development, rehabilitation and improvement of municipal services, capital investments, better quality of life and employment generation. In addition, a large number of secondary benefits are also likely to accrue in the medium to long term such as institutional reforms at the local level. Environmental and social management under the program will be largely based on the existing legal, regulatory and institutional systems in Pakistan and in the Punjab province. PCP-IPF Window (technical assistance component) supports the strengthening of social and environmental risk management systems in the participating cities. It will finance the strengthening of: a) social and environmental focal points in each city; b) the creation of social and environmental management system at the city level; and c) rolling out a training program by PMDFC for city officials.

This Environmental and Social Management Plan (ESMP) is prepared according to the World Bank Core Principles for PforR financing modality and Environmental and Social laws of Government of Punjab (GoPb). It will be used to identify and mitigate the environmental and social impacts that may emerge during implementation of proposed Sub-project "Widening / Raising and Improvement of Existing 2 Roads Including Installation of Street Lights in Khanewal City" which will be executed by MC Khanewal from the financial grant of PCP. This ESMP follows the social and environmental appraisal and compliance as mentioned in the Environmental and Social Management Framework (ESMF) of PCP.

Scope of Work	Sub-Project Involves 1. Widening & Improvement of Purana Karkhana Road Widening & Improvement of Jaswant Nagar Road 2. Jaswantnagar Chowk to Khokar Abad Chowk To 88 Chak Tea Factory Street Lighting Network Jaswant Nagar to Chak 88/10 R and Old / Purana Karkhana Road.
Location	The alignment of Old Karkhana Road exists in between Purana Khanewal Road and Railway Line. The alignment of Jaswant Road starts from Jaswant Chowk, crosses Khokhraabad Chowk and ends at Chak 88 Tea Factory.
Sub-project Cost	PKR 163.32 /- million
ESMP Implementation Cost	PKR 1,293,500/-

Sub-project Summary:

Sub-project	Six months approx.		
Duration	30/40 workers/labor will be engaged		
Major Work	i. Dismantling dry brick masonry/ existing road edging		
Activities	ii. Earthwork excavation		
	iii. Laying sub-base course of stone		
	iv. Compaction		
	v. Laying bituminous priming coat		
	vi. Constructing standard gully grating chamber		
	vii. Laying road edging		
	viii. Raising of man holes		
	x. Laying tuff pavers		
	x. Painting traffic lane marking		
	xi. Fixing cat eyes		
	Fixing pole mounted direction board/road delineator		
	xiii. Street lighting		
Executing Agency	MC Khanewal		
Monitoring Agency	y Punjab Municipal Development Fund Company (PMDFC)		
Sub-projectWorld Bank under Punjab Cities Program (PCP)			
Financed By			
Environmental Category	E-2		
Social Category	S-2		

Environment & Social Management:

This ESMP report presents the Sub-project site-specific baseline data, identification, assessment and evaluation of project impacts and preparation of environmental management and monitoring plan for mitigation of adverse impacts that may arise due to the proposed project interventions.

Screening of Impacts:

Environment and Social Screening Checklist and Involuntary Resettlement Checklist included in the ESMF are used to screen the impacts of "Widening & Improvement of Purana Karkhana Road and Jaswant Nagar Road" and filled as per the environmental and social survey conducted in the Sub-project area. The screening checklist suggested that environmental and social impacts of the Sub-project are minor to moderate and temporary and can be mitigated and managed with prevailing good civil construction measures.

Impact Assessment:

Overall, the subproject will be beneficial. However, during construction phase, there will be some negative environmental and social impacts including construction waste generation during dismantling of road, noise pollution, obstruction in vehicular and pedestrian movement, and temporary disturbance in the accessibility of residents due to road closure. There will be no impact on PCRs as project interventions are outside of the PCR boundaries. There are no environmentally sensitive receptors inside and outside RoW of the Sub-project however small portions of tuff and brick pavers and ramps etc. belonging to 13 persons and one institution will be damaged for which compensation cost is included in the ESMP. There are community safety and occupational safety prospects envisaged. Land acquisition is not required in the sub-project.

Mitigation Measures:

These impacts require appropriate mitigation and management measures to curtail them. The Sub-project specific measures suggested are; a) ESFPs (environmental and social focal persons, MOI will be the focal person for environment and MOP will be the focal person for social issues) will conduct regular visit to the construction sites and fortnightly by DPO ESM to monitor the compliance of E & S aspects (b) dismantling material will be disposed of simultaneously (c) it will be ensured to execute the work in portions to minimize the temporary disturbance in accessibility (d) public safety will be ensured (e) workforce will be provided with the PPEs (f) COVID SOPs will be followed (g) contractor will use efficient machinery and equipment's to reduce noise and air pollution impacts (h) contractor will ensure public convenience during the course of Sub-project (i) compensation cost in lieu of dismantling of small portions of 13 private structures and 1 Government owned front of brick pavers.

Grievance Redress Mechanism (GRM):

GRM for Sub-project implementation will cater to all Sub-project beneficiaries. The GRM mechanism is based on two-tier grievance redress committees at MC Khanewal, PMDFC/LG&CDD level. At construction site number of GRC members will be displayed.

Stakeholder Consultations:

Stakeholder consultations were carried out during preparation of ESMP. Interviews were undertaken with primary stakeholders to discuss present working condition of road and improvements recommended. Meetings were held with MC Khanewal Officials and key environmental and social issues were discussed. Consultations revealed that overwhelming majority of the respondents were not satisfied with the current condition of road as it is eroded and water ponding found due to poor drainage system and rain water stagnation. All the respondents were in favor of widening and improvement of the roads. ESMP implementation cost: 1,293,500. PKR (Break-up of this cost described in Table 7 2).

Section-1 Introduction

1.1. Punjab Cities Program (PCP)

Punjab Cities Program (PCP) Program-for-Results (PforR) will support participating MC Khanewal to improve their urban management and service delivery performance. The operation will provide capacity-building and institutional support to 16 secondary cities in Punjab, with an estimated total population of 4.1 million, half of whom are female.

Program Development Objectives (PDO) is to strengthen the performance of participating urban local governments in urban management and service delivery.

By achieving the Program Development Objective (PDO), the execution of the subproject is expected to contribute to the overarching goals of ending extreme poverty and promoting shared prosperity by delivering improved urban infrastructure on an inclusive basis and in ways that enhance economic growth and development in the participating cities. Achievement of the PDO will also make a significant contribution to attaining Sustainable Development Goal-11 (sustainable cities and communities).

1.2. Environment & Social Management Framework (ESMF)

Environmental and Social Management Framework (ESMF) has been prepared for Punjab Cities Program (PCP). ESMF will facilitate and technically assist the MC Khanewal in better understanding and compliance of social and environmental management processes and procedures as per the World Bank Core Principles under PforR financing modality, local policies and legal framework. Under ESMF procedures, each Sub-project will be screened for the severity and extent of environmental and social impacts. All the Sub-projects will be screened through an environmental and social screening checklist and those having negligible environmental and or social impacts will require no further assessment. Sub-projects having some negative but localized environmental and or social impacts will require a generic Environmental impacts of significant nature or they come under Schedule I or II of PEPA Review of IEE/EIA Regulation 2000 will require to conduct the detailed studies (IEE/EIA) and further submission of reports to PEPA for review and to obtain NOC/ environmental approval.

1.3. Environment & Social Assessment Categories

1.3.1. Environmental Categories:

Depending on size, cost, location and the nature, scheme will have varying impacts on city environment. The rigorousness of environmental assessment requires identifying and mitigating the impacts, largely dependent upon the complexities of scheme. To facilitate effective screening, ESMF categorized schemes into three categories viz. E-1, E-2 and E-3.

- E-1 schemes are those wherein major environmental impacts are foreseen;
- E-2 schemes are expected to have only moderate environmental impacts; and
- E-3 schemes are the schemes with negligible environmental impacts and hence, these can be termed as "environmentally benign".

1.3.2. Social Categories:

Based on the number of households that may be affected by the scheme, i.e., Affected Households (AHs) and magnitude of impacts, schemes are categorized as S-1, S-2 and S-3.

- S-1 schemes are those schemes that will impact more than 40 households, and are expected to have significant negative social consequences;
- S-2 schemes are those which will impact less than 40 households and are expected to have significant social consequences affecting local inhabitants
- S-3 schemes are not expected to have any significant adverse social impacts.

1.3.3. Environment & Social Assessment Category of the Sub-project

Sub-project has been screened to assess the environment and social impacts anticipated as per scope of work. As per findings of the site visit conducted on 03.08.2022, discussion with officials and stakeholder consultations, Sub-project area does not fall in any of the wildlife habitat or reserve area/ environmental sensitive areas; therefore, it will not cause any harmful environmental impact directly or indirectly during or after execution of civil works. Sub-project will have no irreversible environmental and social impacts.

Environment Category

There are some moderate environmental impacts (minor excavations and civil works) as per scope of work which will be minimized by providing mitigation measures as mentioned in Table 7-1. Sub-project is categorized as E-2 and ESMP is prepared under this category.

Social Category

Involuntary land acquisition is not required, and therefore there will be no physical displacement or impacts on livelihoods nor restrictions on access of the local community. Anyhow, Sub-project may have temporary social impacts related to community health and safety and accessibility. *Therefore, Sub-project is categorized as S-2. As there no negative impact in terms of livelihood and means of livelihoods, business loss and any other economic loss is anticipated, Social Management aspects has been included the ESMP.* However, small portions of tuff and brick pavers and ramps etc. belonging to 13 persons and one Government entity will be damaged for which compensation cost is included in the ESMP.

1.4. Environment & Social Management Plan (ESMP)

The Environmental and Social Management Plan (ESMP) is prepared in compliance with the guidelines provided in the Environmental and Social Management Framework (ESMF) for the following Sub-project:

"Widening / Raising and Improvement of Existing 2 Roads Including Installation of Street Lights in Khanewal City"

1.5. Objectives of ESMP

The primary objectives of the ESMP are as follows:

- To facilitate the implementation of the identified mitigation measures.
- To define responsibilities of the project proponents, Contractor, and other members of the project team.
- To define a monitoring mechanism and identify monitoring parameters in order to ensure complete implementation of all mitigation measures and ensure effectiveness of the mitigation measures.

1.6. Sub-Project Team

Following team members participated during the preparation of ESMP.

Sr. No.	Name	Designation	Department
01	Mr. Zain Ali	MOI	MC Khanewal
02	M. Shahbaz	Sub-Engineer	MC Khanewal

Table 1-1: Composition of Sub-project Team

Environment & Social Management Plan (ESMP)

03	Mr. Umar Farooq	DPO-ESS	PMDFC
04	Mr. Moazzam Ali	Environmentalist	MM-Pakistan
05	Mr. Saqib Sadiq	Sociologist	MM-Pakistan
06	Mr. Zafar Iqbal	Resettlement Specialist	MM-Pakistan
07	Dr. Muhammad Ashraf Bodla	Environmental Specialist	MM-Pakistan

Section-2 Sub-Project Description

2.1. Area Description

The alignment of Old Karkhana Road exists in between Purana Khanewal Road and Railway Line whereas the alignment of Jaswant Road starts from Jaswant Chowk, crosses Khokhrabad Chowk and ends at Chak 88 Tea Factory. The present physical conditions of Old Karkhana Road and Jasvant Roads are presented in the Figure 2-1 and Figure 2-2 respectively.



Figure 2-1: Old Kharkhana Road Khanewal

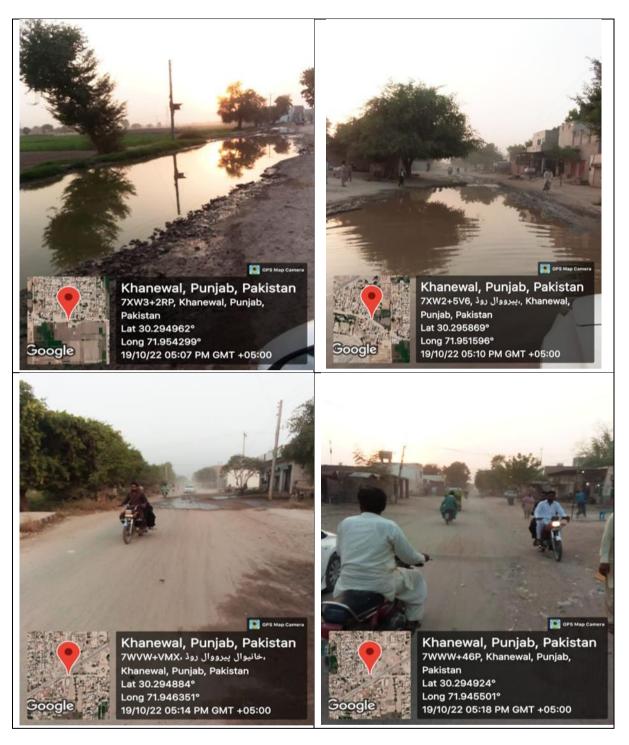


Figure 2-2: Jaswant Nage to Chack 88/10R Road Khanewal

2.2. Problem Statement

This Sub-project has been formulated on the basis of demand from communities residing along with the alignment of the Sub-project. The roads proposed for widening and improvement have been damaged because of poor sewerage system. In monsoon season flooding and water ponding is major issue in the Sub-project area. The roads are damaged at various places and water is stagnated. Therefore, MC Khanewal also decided to build the drainage system (to maintain gravity flow at one side) along with roads under this Sub-project.

Environment & Social Management Plan (ESMP)

2.3. Description of Work Activities

The Sub-project is Widening & Improvement of Purana Karkhana Road (L = 1951 Ft); and Widening & Improvement of Jaswant Nagar Road 2. Jaswantnagar Chowk To Khokar Abad Chowk To 88 Chak Tea Factory (L = 10200 Ft)

The Sub-project has the following interventions:

- Dismantling dry brick masonry/ existing road edging
- Earthwork excavation
- Laying sub-base course of stone
- Compaction
- Laying bituminous priming coat
- Constructing standard gully grating chamber
- Laying road edging
- Raising of man holes
- Laying tuff pavers
- Painting traffic lane marking
- Fixing cat eyes
- Fixing pole mounted direction board/road delineator
- Fixing of streetlights along Old Kharkhana Road and Jaswant Nagar to Chak 88 roads.

2.4. Environmental Management Cost

Total cost of the scheme: 163.32 million/- PKR

ESMP implementation cost: 1,293,500. PKR (Break-up of this cost described in Table 7-2).

2.5. Duration of the Sub-project

Implementation Schedule/Duration: 06 month maximum.

No. of workers/labor involved: 30-40 approx.

2.6. Sub-project Alternatives

Sub-project involves rehabilitation of Widening & Improvement of Purana Karkhana and Jaswant Nagar Roads

2.6.1. Do Nothing Scenario

The no-build alternative involves letting the current situation continue without addressing the on-going deterioration of the air quality, level of service and other environmental and social impacts occurring in the Sub-project area. If the project is not carried out the expected consequences are:

• Deterioration in air quality, and increase in noise levels due to traffic jam.

- An increase in the severity of socio-economic impacts in the surrounding area.
- The project shall eventually have to be undertaken as the demand from the communities shall soon reach its peak levels.
- The cost of the proposed design shall increase in future due to inflation, social issues, environmental impacts etc.

2.6.2. Site Alternative

Sub-project involves rehabilitation of Widening & Improvement of Purana Karkhana and Jaswant Nagar Roads so there is no site alternative envisaged because no other site available to serve this purpose.

Section-3 Legal & Policy Framework

3.1. Introduction

The Government of Pakistan and Government of Punjab (GOP) have enacted a range of laws, regulations, policies and procedures for management and mitigation of social and environmental impacts for infrastructure development projects. This chapter discusses the relevant and applicable laws and WB Core Principles for PforR financing modality applicable for PCP to deal with the environmental and social issues.

3.2. National and Provincial Laws, Regulations, Procedures and Guidelines dealing with the Environmental & Social Aspects

 Table 3-1: National and Provincial Laws, Regulations, Procedures and Guidelines Dealing with the Environmental & Social Aspects

Sr. No.	Applicable laws, regulations, Guidelines	Relevancy/Applicability
١.	Punjab Environmental Protection Act	PEPA does not require IEE or EIA of
	2012	rehabilitation projects
١١.	PEPA Review of IEE/EIA Regulations,	IEE/EIA regulations do not require IEE or
	2000	EIA of rehabilitation projects.
III.	Notification No.SO (Tech)/EPD/1-	ESMP do not require review and
	26/2004 issued by Government of the	subsequent NOC from the relevant
	Punjab, Environment Protection	authority
	Department "Delegation of Powers for Environmental Approvals Rules 2017	
IV.	Punjab Local Government Act, 2019	Follows the environmental and social
10.		assessment procedures stated in PEPA
		2012
V.	Punjab Environmental Quality	Applied to vehicles used by the
	Standards for Motor Vehicle Exhaust	contractor
	and Noise	
VI.	Punjab Environmental Quality	Compliance required during construction
	Standards for Ambient Air	activities
VII.	Punjab Environmental Quality	Compliance required during construction
	Standards for Noise	activities
VIII.	Punjab Environmental Quality	Compliance required during construction
	Standards for Drinking Water	activities
IX.	Punjab Restriction of Employment of	Compliance required during construction
	Children Act 2016	activities
X.	Protection Against Harassment of	Compliance required during construction
^.	Women at the Workplace Act, 2010	activities
	women at the workplace Act, 2010	

3.3. World Bank Policy Core Principles and Applicability on Sub-project

Core Principles	Applicability
Core Principle 1 Environmental and social management procedures and processes are designed to (a) Avoid, minimize, or mitigate against adverse impacts; (b) Promote environmental and social sustainability in program design; and (c) Promote informed decision making relating to a program's environmental and social effects.	ESMP prepared under the light of this Principle in order to mitigate negative impacts envisaged in this Sub-project. ESMP implementation will help in achieving environmental and social sustainability
Core Principle 2 Environmental and social management procedures and processes are designed to avoid, minimize, and mitigate against adverse effects on natural habitats and physical cultural resources resulting from the program	Table 7-1 prepared to mitigate all minor impacts anticipated during the course of the Sub-project.
Core Principle 3 Program procedures ensure adequate measures to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the Program and (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials	All the mitigation measures have been incorporated in the Table 7-1 to address risks associated with workers and community health and safety. Contractor will ensure compliance with these attributes.
Core Principle 4 Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards	This core principle doesn't trigger in this Sub-project as no land acquisition is required during the replacement of existing sewer-line.
Core Principle 5 Due consideration is given to cultural appropriateness of, and equitable access to, program benefits, giving special attention to rights and interests of indigenous peoples and to the needs or concerns of vulnerable groups.	No indigenous/ Vulnerable groups exist in the Sub-project sites.
Core Principle 6 Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.	This principle is not relevant for this Sub- project.

3.4. World Bank Environmental, Health and Social Guidelines

The principal World Bank publications that contain environmental and social guidelines are listed below.

- Environment, Health, and Safety (EHS) Guidelines prepared by International Finance Corporation and World Bank in 2007
- Pollution Prevention and Abatement Handbook 1998: Towards Cleaner Production
- Environmental Assessment Sourcebook, Volume I: Policies, Procedures, and Cross-Sectoral Issues.
- Social Analysis Sourcebook
- WB Group Gender Strategy

Details of related EHSG can be found in Annexure ii.

3.5. PMDFC Environment Health and Safety SOPs for labor/workers (including Women)

EHS SOPs for labor/workers (including women workers) will be applicable during the labor work and made part of the contractual agreement of the contractor

3.6. COVID-19 SOPs

During the construction and implementation of the Sub-project, the Standard Operating Procedures (SOPs) will be strictly followed during construction activities, stakeholder consultations or applicable in any other relevant aspect. The SOPs attached as Annexure iii.

Section-4 Environment & Social Baseline

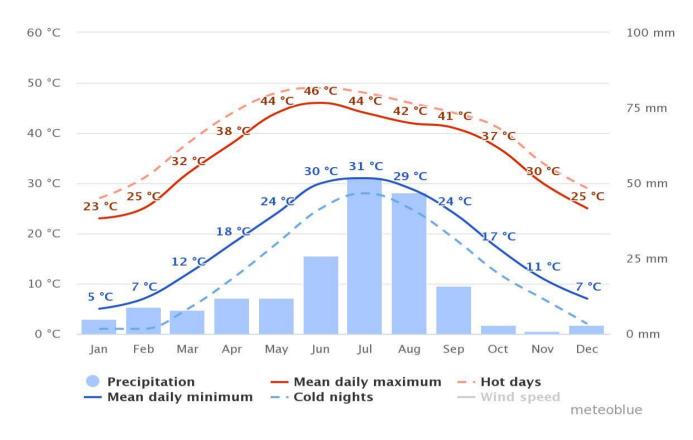
4.1. City profile

Khanewal is located at 30°-18' North and 71°-55' East with an altitude of 135 meters above mean sea level at a distance of 45 Km in North East of famous city of Multan. It is located on the main arterial highway N-5 of the country and hence connected to all cities of Pakistan through road and rail links. The Khanewal city area is 784 sq.km. The name Khanewal was named after the earliest settlers here who belonged to the caste 'Daha' and used 'Khan' in their names. After construction of irrigation system and rail track in Khanewal it became the commercial center having grain markets and other commercial activities.

4.2. Climate

Located at an elevation of 135.38 meters (444.16 feet) above sea level, Khanewal has a Subtropical desert climate (Classification: BWh). The district's yearly temperature is 31.79°C (89.22°F) and it is 10.9% higher than Pakistan's averages. Khanewal typically receives about 22.74 millimeters (0.9 inches) of precipitation and has 48.64 rainy days (13.33% of the time) annually. The "mean daily maximum" (solid red line) shows the maximum temperature of an average day for every month for Khanewal. Likewise, "mean daily minimum" (solid blue line) shows the average minimum temperature. Hot days and cold nights (dashed red and blue lines) show the average of the hottest day and coldest night of each month of the last 30 years¹.

¹ https://www.meteoblue.com/en/weather/week/khanewal_pakistan_1174220



Environment & Social Management Plan (ESMP)

4.3. Demographic Status²

The present population of Khanewal is 2,920,233 at growth rate of 1.83. Sub-project area is residential cum commercial. Approximately 25,000 people live in the vicinity of the project. Sub-project is populated with middle class community.

4.4. Water Resources

The city is considered as a single unit or zone with respect to water supply. Deep groundwater is fresh and hence the water supply system is based on deep tube-wells installed at various locations in the city. The city is served by direct pumping in some areas whereas in some areas water is supplied to the consumers through overhead reservoirs.

Khanewal city is equipped with piped water supply system. Some of the areas are facing water shortage whereas some others have no water supply system. Water supply from shallow as well as deep aquifers over here have chemically fresh water but the shallow aquifers are mostly contaminated.

² https://www.pbs.gov.pk/sites/default/files/population/2017/results/07201.pdf

4.4.1. Water Quality

No specific primary and secondary data available in context of Khanewal City. MC Khanewal has not analyzed/ sample any drinking water since PHED handed over whole water supply infrastructure to MC.

The results of a study conducted by Iqbal et al. 2021 are shown in Table 4-1 that shows the groundwater statistical results compared with the World Health Organization guidelines.

Parameters	Minimum	Maximum	Mean	WHO Standards	NSBL ³	NSBL %
Turbidity (NTU)	0	7	2.52	5	3	4.41
рН	6.96	9.2	7.79	6.5–8.5	2	2.94
EC (µS/cm)	350	1525	783.6	400	63	92.6
TDS (mg/L)	137	1414	507.28	1000	1	1.47
TH (mg/L)	35	530	215.7	300	10	14.7
Na⁺ (mg/L)	15	324	90.87	200	4	5.88
K ⁺ (mg/L)	0.2	34	6.42	12	6	8.82
Mg ²⁺ (mg/L)	1.0	73	20.78	50	3	4.41
Ca ²⁺ (mg/L)	16	132	52.93	100	4	5.88
Fe ²⁺ (mg/L)	0.1	4.16	0.54	0.3	37	54.4
F⁻ (mg/L)	0.01	3.95	0.54	1.5	2	2.94
Cl⁻ (mg/L)	9.6	167	46.78	250	0	0.0
SO4 ²⁻ (mg/L)	22	498	117.5	250	4	5.88
HCO₃ ⁻ (mg/L) NO₃- N (mg/L)	100 <0.1	510 4.2	243.65 0.30	250 10	26 0	38.23 0.0

Table 4-1: Statistical Physicochemical Parameters of Groundwater Samples (n = 68) Collected from the Khanewal District

Study revealed that 50% of the water samples were unsafe for drinking and 32% of the groundwater samples being unsuitable for irrigation purposes. The water samples (number and location) have been collected and upon receiving their report, analysis of water quality will be attached with the ESMP. It is part of environment management plan to ensure clean and safe drinking water availability for the workers by contractor.

4.5. Solid Waste Management

Solid Waste Management (SWM) is comprised of four main components i.e., collection, transportation, treatment and disposal, the MC is resource-constrained for manpower as well as finances. While the city has been provided new machinery for waste collection in 2017 and is planning to procure more under Punjab Cities Project (PCP) as well, it is working with fewer

³ Number of samples beyond (WHO) limits.

staff than it should have for a population of 250,000 people. The lesser number of people available for primary collection leads to lesser efficiency of waste reaching to transportation points and even lesser to the landfill since not all the transportation vehicles are being operated.

4.6. Sewerage Facility

Whether the whole population of the city is connected to the water supply or not, the wastewater from the urban areas is disposed of through the MC's operated drains and sewerage network. The city has an extensive network of street drains and sewerage pipes but the exact information on, how many consumers are connected to the sewerage network, is unknown to the MC. It was informed by the MC officials that drain cleaning and sewer desilting is a major task in Khanewal due to the fact that at many places solid waste also gets dumped into open drains. The MC uses sucker machines and winch machines to remove blockades and desilting while the dewatering sets are used to remove stormwater from flooded streets in the event of rainfall or overflow from the sewers.

4.7. Seismologic Zone

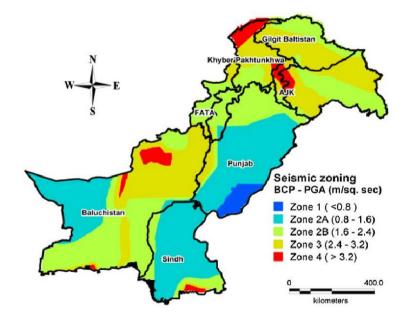


Figure 4-1: Project Area Seismic Zone Location⁴

Table 4-2: Seismic Zones of T	Tehsils of Pakistan
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Tehsil	Seismic Zone	Tehsil	Seismic Zone	Tehsil	Seismic Zone	
Punjab						
Attock	2B	Shorkot	2A	Multan City	2A	
Hassanabdal	2B	Toba Tek Singh	2A	Multan Saddar	2A	

⁴ Source: Geological Survey of Pakistan

Fateh Jang	2B	Khanewal	2A	Shujabad	2A
Pindi Gheb	2B	Gojra	2A	Jalapur	2A
				Pirwala	

According to the Seismic data of Pakistan; Khanewal lies in 2A zone with minimum risks to any earthquakes⁵. Pakistan is divided into five seismic zones (Zones 1, 2A, 2B, 3, and 4) considering the severity of seismic hazard; zone 1 is the lowest, and zone 4 is the highest seismic zone. Seismic Zone 2A which is Low hazard zone corresponding to peak ground acceleration (PGA) values of 0.08 to 0.16 m/sec2.

4.8. Natural Disasters Data

Geographically Khanewal city lies at a distance of 34 Km and 40 Km from River Ravi and Chenab respectively and is therefore historically not affected by floods.

4.8.1. Potential hazards of the District Khanewal

Hazards Risk	Likelihood Score (1- 5)	Impact Score (1-5)	Risk
Floods	3	3	6
Urban Flooding	1	1	1
Flash Floods	0	0	0
Hill Torrent	0	0	0
Glacial Lake Outburst Flood (GLOF)	0	0	0
Landslide	0	0	0
Tornado	1	1	1
Earthquake	1	4	4
Drought	1	3	3
Epidemic	3	3	6
Fire Incidents	2	3	6
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	1	4	4
Environmental Hazards (industrial accidents, severe pollution etc.)	1	3	3
Risk = Impact x Likelihood			
Low: 1-7			
Medium: 8-14			
High: 15-25			

Table 4-3: Risk Analysis of Potential Hazards of District Khanewal

Source: District Disaster Management Plan 2020 (District Khanewal)

4.9. Environmentally and Socially Sensitive Receptors

Environmental sensitive areas are more prone towards human disturbance. For this Subproject, no wetland, estuarine, river, protected areas lie within scope of work of scheme area and no significant environmental impacts has been envisaged. 10 schools are located within

⁵ Source: Geological Survey of Pakistan

100m of Jaswant Nagar road and 01 school is located within 100m of Old Kharkhana road. There will be impediment in the movement of local community during school hours for which MC will ensure to implement mitigation measures of ESMP by incorporating the E&S requirements in the scope of work of the contractor.

For dismantling of 14 tuff pavers, ramps, compensation will be awarded to the project Affected Persons

4.10. Flora & Fauna

179 trees of Sufaida, Bakain, Sukhchain, Sohanjana, Toot, and Sumbal are located along the roads but outside of right of way. No tree cutting is involved during the execution of the project. No wild animal/ endangered species is found in the area.

4.11. Right of Way and Area of Influence

The existing Right of Way (RoW) of Old Karkhana and Jaswant Roads is 52-66 ft. The old carriage way ranges from 16-23ft. and proposed carriage way is 24ft. with additional shoulders of 06 ft. (3ft. either side). The 30ft. carriage way and shoulders is the Area of Influence (AOI) where the rehabilitation/improvement works of roads will be confined.

4.12. Socio - Economic Baseline

The socio-economic characteristics are a comprehensive review of the current conditions of the project area. It is based on a literature review, site visits, and consultations with institutional and community stakeholders. The baseline provides a glance of the conditions of the community of the project area. It includes provision of social infrastructure facilities available in the area. Moreover, the existing conditions of utilities and the presence of cultural and religious sites are also discussed. The communities of the road sub-project fall under the lower income category and mostly are engaged with private jobs, embroidery shops, restaurants, furniture shops, general stores, motorcycle shops, private clinics, fodder, vegetable & fruit shops.

4.12.1. Demographic Characteristics

The population of Khanewal city is 2,920,233 as recorded in 2017. The project lies in the urban and rural area of Jusswant Nagar to Village 88/10 R. Birth, death, fertility, mortality, fecundity, crude and net birth rate and migration are the most important demographic factors.

4.12.2. Educational institutions

The Government Secondary School of Special Education, Government Girls English Medium High School, Government Special Education Centre Khanewal, Government High School for Boys Government High School are the Governmental educational institutions while TCF is only English medium private school are present in the vicinity of project location.

4.12.3. Housing

Majority of the houses are made of material such as concreted and cemented in the project area. Basic utilities, which are included gas, water supply and sewerage system, are also available at the proposed project site.

4.12.4. Archaeological, Historical, and Cultural Resources

There are no identified archaeological, historical, and cultural resources along the project route that will be impacted by the road construction except 03 mosques that are located outside of Sub-project activity area. There will be no impact on the structure itself. However, temporary impediment in the movement of people during the prayer time. This impact would be mitigated by keeping the passageway clear during prayer time.





Figure 4-2: Few Photographs of assets to be damaged

Section-5 Stakeholder Consultation

Timely and broad-based stakeholder involvement is an essential element for an effective environmental and social assessment. Stakeholder engagement during Environmental & Social Assessment contributes in the improvement of the project design, environmental compliance and social acceptability.

5.1. General

This section describes the outcomes of the public consultation sessions held within MC Khanewal of the proposed project area that can be affected by the project. The objectives of this process were to:

- Share information with stakeholders on the rehabilitation of the proposed project and expected impacts on the physical, biological and socio-economic environment of the project;
- Understand stakeholder's concerns regarding various aspects of the project and the likely impacts of construction related activities and operation of the project;
- Understand the perceptions, assessment of social impacts and concerns of the affected people/ MC Khanewal of the proposed project;
- Provide an opportunity to the public regarding their valuable suggestions in a positive manner; and
- Reduce the chances of conflict through the early identification of controversial issues, and consult them to find acceptable solutions.

In preparation for the ESMP, two major groups of stakeholders were identified: (i) local communities who are the direct beneficiaries of the project interventions and therefore identified as the primary stakeholders (ii) institutions who have an important role in enabling the realization of the project interventions and therefore identified as the secondary stakeholders.

5.2. Public Consultation

For public information/ consultation, visits were made in the proposed project areas to record the concerns of communities regarding Sub-project activities. Methodology selected for selection of interviewee was Random Sampling/Focus Group Discussion. Table 5.1 depicts the concerns of the community and the replies from the consultant team. The pictorial record of public consultation on subproject area including Public Consultation at Jaswant Nagar Road & Public Consultation at Old Karkhana Road is given:

Sr. No.	Community Concerns	Consultant Responses
1	The residents showed their concern about the existing bad condition of road.	The project team said that this project would be completed on an urgent basis.
2	Poor sanitation conditions in the area should be resolved.	The team addresses it accordingly.
3	How will define the right of way and scope of work for the improvement of road?	Improvement of work will be carried out according to design of the project. Where right of the way is clearly mentioned.
4	What will be O&M mechanism after completion of the project?	This project is only for the improvement of existing road; however, The MC will carry out O/M services through their annual fund.
5	The local area is facing a lack of basic amenities of life including poor roads, which should be rehabilitated.	Acknowledged by the consultants and replied they recognize the dire need alongside the proposed project but not yet within this project.
6	Imam Masjid, shared that this is the only road, which connects their local area to city, so it is a very important road for us. The community is facing some issues in night time on this road.	Sociologist of MMP responded, the idea is conceived on the basis of problem is confronting, same criteria will be mentioned to facilitate the locals from terrorists.
7	Is the contractor realize the local norms and values?	Acknowledged, the contractor will keep in mind and follow the local norms according to the demand of the community.
8	Children are facing the problem during going to school due to improper drainage system and bad condition of street in the area.	Acknowledged, MC really understands the issue. Drainage issue will be addressed accordingly
9.	Laying of sewerage is dire need of the community before the start of mettle road at Old Karkhana road	Drainage issue will be addressed accordingly
10.	The Community of Cha Niazi Wala demanded to MC to provision of house hold connections before start of road	The team ensured to the community rectified their issues a priority bases.
11.	If the community disagree and grievances then how and where she can be approached?	The team told different tiers of GRM in details to PAPs and local community.



Figure 5-1: Pictorial view of Public Consultation

5.2.1. Identification of Project Affected Persons (PAP)

The residential structures and residential settlements in the vicinity will not be affected as no land acquisition is required. Since there is no land acquisition, no shelter or residential land is required to be resettled and no agriculture or productive assets that exist in the project area will be affected. No businesses or enterprises will be affected due to the project activity. Inspite of all these only thirteen Project Affected Persons and one institution Public Health Engineering will be affected due to dismantling of small portions of their extended ramps/footsteps in the RoW. The details are as under and also in stakeholder consultation section:

Sr.#	Name of PAP	Type of Asset	Name of Subproject	Contact No.
1.	Naveed Iqbal (03 structures of the same owner)	PCC	Jasswant Nagar	03063004689
2.	Farid Rehmani (04 structures of the same owner)	PCC & Bricks	Jasswant Nagar	03095637470
3.	M. Ashraf	Bricks Pavement	Jasswant Nagar	03006885287
4.	Akhtar Hussain	PCC	Jasswant Nagar	03000780087
5.	Aman Ullah	Tuff tile Pavement	Jasswant Nagar	03006897752
6.	M. Saleem Khan	Tuff tile Pavement	Jasswant Nagar	03023577613
7.	Dr. M. Junaid	Tuff tile Pavement	Jasswant Nagar	03000773922
8.	M Rafiq	Tuff tile Pavement	Jasswant Nagar	03228700889
9	PHED	Tufftile Pavement	Old Karkhana	Govt. owned office
Total No. of Affected Persons				09
Total No. of Affected Structures				14

5.3. Inventory of Assets

Any household, whose assets, source of income or access to resources is likely to be affected by the project operations, is defined as Affected Households (AHs). These include mainly the owners of any asset located within the Corridor of Impact (CoI). Col depends upon the width of the road. In the following table Inventory of assets lying in Col is presented.

Section-6 Grievance Redress Mechanism

6.1. GRIEVANCE REDRESS MECHANISM

In order to receive and facilitate the resolution of affected people concerns, compliments, and grievance about the project's environmental and social performance an Environmental Grievance Redress Mechanism (GRM) has been established. The GRM will address affected people's concerns and complaints proactively and promptly, using an understandable and transparent process that is gender responsive, culturally appropriate and readily accessible to all segments of the affected people at no costs and without retribution.

The GRM will be accessible to diverse members of the communities, including women, senior citizens, and people with disabilities, laborers/workers, and other vulnerable groups. ESMF GRM will be integrated with the PCP's overall program GRM hotline to be developed by the Consultants under the scope of PCP.

6.2. GRM AT SUB-PROJECT SITE

Grievance Redress Mechanism (GRM) is to provide a robust system of procedures and processes that provides for transparent and rapid resolution of concerns and complaints identified at the local level. In case of any complaint, focal person of GRC may contact and his contact details will be provided at project site.

- Grievance Redress Committee (GRC)- MC Khanewal
- GRC at PMDFC Level

Section-7 Environmental and Social Management and Monitoring Plan

7.1. Objective

The purpose of Environmental and Social Management and Monitoring Plan (ESMMP) for widening and improvement of roads is to ensure that all necessary identified measures have been adopted in order to protect the environment and social situations and to comply with country environmental legislation and applicable World Bank Core Principles for PforR financing modality. After the preparation of ESMF, PMDFC ESM Wing outlined site-specific ESMMP for the Contractors and executing agency. Environmental and social checklist was prepared by PMDFC ESM Wing with the help of the field teams and was used to assess the potential impacts of Sub-project on the basis of its scale/size, nature and significant negative impacts.

7.2. Institutional Arrangements

The specific responsibilities of the institutions involved in the ESMP implementation are described below:

7.2.1. MC Khanewal

Overall responsibility for Environmental Management and Monitoring will rest with the MC Khanewal. MC Khanewal will be responsible for implementation, monitoring and reporting of ESMP with the technical assistance of ESM Wing PMDFC throughout the project period.

Notification of ESFPs in MC Khanewal under PCP has been done.

MOI has been nominated as environment focal person; he is responsible for implementation & monitoring of environmental aspects. MOP has been nominated as social focal person, he is responsible for implementation & monitoring of social aspects

7.2.2. PMDFC ESM Wing

ESM Wing will provide support to ESFPs (MOI for Environment focal person and MOP for Social focal person) for managing environment and social aspects of the Sub-project and implementation of the present ESMP. ESM Wing would also support communities' participation, consultations and other social activities from the Sub-project identification to completion stage. PMDFC ESM wing will also monitor the Sub-project activities to ensure the project remains complaint as per World Bank and national/provincial policies and regulations. Therefore, regular reports will be submitted to the Word Bank accordingly.

7.2.3. The Contractor

The Contractor will be responsible for on-field implementation of the ESMP and environmental protection liabilities under the Punjab Environmental Protection Act (Amendment 2012) and World Bank's Environmental and Social Core Principles for PforR financing. He will also be responsible for compliance of ESMP provisions keeping in view his contract with the MC Khanewal. The Contractor will train his crew in all aspects for implementation of the ESMP.

Contractors have to comply with the following responsibilities:

- Observation of timings and make a schedule that the surrounding communities should not affect from noise pollution, air emissions and disturbances in their routine work.
- Machinery/equipment's producing negligible/low noise.
- Contactor will be responsible for providing clean drinking water to workers/ labors.
- Ensure health, safety and protective measures including safety equipment, safe drinking water, first aid boxes etc. to the workforce as per nature of their jobs.
- Water sprinkling to avoid air pollution.
- Indicate alternate routes and provide indicators on suitable places during work timings.
- Local labor should be preferred to work.
- Child labor is strictly prohibited as per labor law. All labor should be more than 14 year of age individually.
- Minimize livelihood disturbance of hawkers and shopkeepers.
- Proper disposal of wastes and garbage.
- Health, safety and protective measures for the labor.
- Notice board of emergency numbers should be placed on proper place.
- Contractors shall also provide safety equipment's i.e., PPEs, safe drinking water, first aid boxes etc. to the workforce as per nature of their jobs. By ensuring all these mitigation measures; not only their company profile shall boost up but also enable them to qualify and win the future Sub-projects.

7.2.4. Supervisory Consultant

Compliance of ESMP all attributes will be ensured by Resident Supervision Consultant.

7.3. Monitoring Mechanism

The ESFPs will carry out the monitoring at the field level on a continuous basis. The DPO ESSs will perform periodic monitoring during their site visits. Two complementary methodology approaches are being applied to monitor the proposed actions under the ESMP:

Environment & Social Management Plan (ESMP)

- Compliance monitoring; which checks whether the actions proposed by the ESMP have been carried out by visual observation, photographic documentation and the use of checklists prepared for the ESMP;
- Effects monitoring; which records the consequences of program activities on the biophysical and social environment; as applicable, these effects are repeatedly measured by applying selected indicators.

The plan also defines the monitoring mechanism and identifies a set of verifiable monitoring parameters to ensure that all proposed mitigation measures laid down in the ESMP are completely and effectively implemented.

Monitoring will be carried out to ensure that the mitigation plans are regularly and effectively implemented. It will be performed at two levels. At the PMDFC, the environmental team will do ESMP compliance monitoring to ensure that the mitigation plans are being effectively implemented. At Contractor's level, the Environmental & Social monitoring checklist (Annexure i) will be filled on weekly basis by their Environmental Manager.

7.4. Reports

The Contractor will submit weekly compliance monitoring checklist and PMDFC ESM Wing will submit quarterly and annual monitoring reports as well as a final report of the Sub-project based on safeguard implementation status. The monitoring reports will also include process and outcome of consultations with the Project Affected Persons if any. The distribution of periodic reports is given below:

Distribution of Periodic Reports Report	Prepared by	Reviewed by	Distribution
Weekly	Contractor	PMDFC DPO ESSs	PD, The Engineer
Quarterly	PMDFC DPO ESSs	PMDFC SPO ESSs	PD, The Engineer, The World Bank
Annual	PMDFC DPO ESSs	PMDFC SPO ESSs	PD, The Engineer, The World Bank
Final	PMDFC DPO ESSs	PMDFC SPO ESSs	PD, The Engineer, The World Bank

Environment & Social Management Plan (ESMP)

7.5. Inclusion of ESMP in Bidding/ Contract Documents

The present ESMP has been included in the bidding/ contract documents and their implementation will be a contractual binding for the Contractors. In addition, the Contractor's guidelines prepared by PMDFC/ safeguards procedures will also be made part of contracts.

7.6. Environmental and Social Non-Compliance

Any environmental and social non-compliance during first half of the reporting month will be considered as a "minor deviation". In case the non-compliance attains the status of "non-mitigation" during the second half of the reporting month, it would be considered a "moderate non-compliance". In case non-compliance continues in the second month, it will fall in the category of "undone" and as such would be considered as a major non-compliance and eventually leading to serious action including the suspension of Contractor's payment or any other penalty as may be considered appropriate with the recommendation of the DPO ESSs/Engineer. No payment will be made to Contractor against non-compliance and no arrears will be paid thereof.

7.7. Environmental and Social Management and Monitoring Plan

The impacts, mitigation measures, monitoring indicators, frequency and responsibility has been discussed in Environmental and Social Management and Monitoring Plan (ESMMP).

Table 7-1: Environmental & Social Management & Monitoring Plan

Sub-project: Rehabilitation and Improvement of Roads and Streetlights in Khanewal City

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
Design Phase Before Execution	Conflict on design	Negligib le	To avoid conflicts at design phase public consultations was conducted, in this Sub- project no conflict was raised during public consultation	MC ESFPs	Minutes of meeting records, attendance sheets and pictures	Throughout the length of Sub- project	ESM team of PMDFC
Land Acquisition and Existing Land Use	 Land execution for widening of road Dismantling of 13 private (at Jaswant Nagr raod) and 1 Government owned structure at Old Karkhana Road for site clearance for execution of work at existing RoW Temporary land acquisition for storage of construction material and machinery etc. Existing Land Use at Sub- project execution site 3 mosques exist along the alignment of the Jaswant Nagar road. There 	Moderat e	 No land acquisition will be required for execution of Sub- project. MC owned RoW exists along both sides of the road For temporary storage of construction material and machinery, enough space is available along RoW For site clearance, 14 No. of structures will need to be dismantled 	MC Khanewal	 Compensation payment record Public consultation Physical verification and site inspection 	Throughout the length of subproject	DPO-ESM Supervision consultants

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
	temporary impediment in the movement of people during the prayers time. • 10 schools are present within 100m of Jaswant Nagar road and 01 school along Old Karkhana road, There will be impediment in the movement of local community during school hours. • There are 153 trees of Shreen, Bairee, Sohanjana, Ficus, Neem, Peepal, Keeker, Sheesham and Bakain are present on both sides of Jaswant Nagar road and 26 trees of the same species are growing along Old Kharkhana road, but outside RoW of road		 360,000/- is allocated in the estimated budget of ESMP as compensation for the affected persons To avoid disturbance in the mobility of people visiting the Mosques, passageway will be kept clear during prayers time and Mosques administration will be informed well before execution of the subproject. School administration will be informed before execution and contractor will be instructed to avoid work during school timing and contractor will display the traffic management plan at some prominent place (ARAP is 				

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
Construction Phas	e		prepared as a separate document).				
Dismantling, Excavation fine aggregate, base coarse and cleaning & grabbing)	 a) Environmental Issues: Dust which may affect visibility, community and labor health Noise from machineries/ equipment Waste may be generated due these activities Safety hazards to labor and nearby resident population. Worse House Keeping b) Social Issues: Excavated material may cause disturbance in mobility Temporary blockage of road may restrict mobility Conflict with public and public complaints Economic losses Livelihood's loss. Temporary loss of structures and private property 	High	 Excavated material after segregation of material for reuse will be disposed within 24 hours at the designated place of MC Khanewal. Updated and tuned machinery will be used to control noise. Water sprinkling will be carried out at consecutive intervals as per instructions Avoiding construction activities during nights. Removal of excess matter/ debris from the site within 24 hours. Provide PPEs (See Annexure v). Provide appropriate signage near the 	Contractor	Visual/ Photographic record, Public consultation, Environment Quality Analysis reports, GRM Complaints record	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
	 Economic loss of permanent and mobile vendors due to obstruction of passage Presence of Physical Cultural Resources (PCRs) of Archeological importance Air and dust pollution Noise pollution 		 construction activities to sensitize the communities and minimize accidents. Public must be informed about project major activities, duration of scheme, time and schedule, anticipated impacts and their proposed Mitigation Measures. The contact Nos. of focal person of Grievance Redress Committee will be displayed at different locations and residents will also be informed about it. Construction work will be scheduled in such a way that business of the shopkeepers located along the roads will not be affected. 				

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			 Temporary hindrance in mobility for which contractor will be instructed to execute that work by providing the alternate route for community mobility. Contractor will ensure that work should be executed in portions to avoid the temporary disturbances in the accessibility and placement of the temporary vendors Contractor will make sure that labor must not damage the property and structures of the communities (although no such structure was observed during the screening survey) and in case of damage compensation will 				

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			 be provided as per entitlements. If there will be any PCR found during excavation; Contractor will follow guidelines (Annexure vi) of chance find procedure. Air quality will be analyzed by the contractor from EPD certified Lab at pre, during and after execution stage of the work. Noise quality will be analyzed by the contractor from EPD certified Lab at pre, during and after execution stage of the work. 				
Construction material storage, handling and use	 Environmental Issues: Ground water may be contaminated due to oil spillages from machinery. Health risk to workers and local inhabitants. Poor Housekeeping Social Issues: 	Medium to negligibl e	 Construction material will be covered to ensure safe passage between the destinations during transportation. Materials will not be loaded to a 	Contractor	Visual/ Pictures	 Daily site visit during construction phase Fortnightly/Wee kly Once during the 	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
	 Land acquisition for storage of construction material Accidents/Injuries expected if neglected Blockage of passage for pedestrians Haphazard arrangement of construction material 		 higher level than the side and tail boards and shall be covered with a good quality tarpaulin; Sufficient space is available within the RoW of roads for storage of construction material. Anyhow, if land may need to be acquired for temporary storage of machinery & materials contractor will be liable to compensate the land owner accordingly through agreement/ negotiations/volunt arily. Contractor will lay/utilize construction materials as per work requirement from his storage site. 			construction phase	

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			Contractor will use night vision reflective signboards/ reflective tapes to cordon off the area during construction activities.				
Labor Camp (if established by Contractor)	 Health impacts due to absence of housing and sanitation facilities in labor camp. SOPs of health & safety will be provided to contractor and it will be ensured that contractor follows the provided guidelines. Security of labor Unhygienic conditions 	Medium	 For the execution of this sub-project, 15/16 number of workers/laborers will be required to work for almost 06 months and contractor will be instructed (will be included in his term of reference and in the form of EHS SOPs implementation),to prefer the local labor to be engaged ,for which labor camp will not be required to be established. Anyhow, for temporary labor site, following mitigation 	Contractor	Visual/ Pictures	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			 measures will be provided Contractor will ensure provision of appropriate housing, water supply, and sanitation facilities to construction labor. Good housekeeping will be ensured inside campsite Labor will be provided with quality food. During winter hot water will be provided for bathing and likewise as per the weather condition. Accommodation will be ensured by the Contractor. It's better to accommodate labor in Containers Camps/houses with all amenities. Contractor will submit Campsite 				

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			Management Plan and approve from DPO-ESSs before the execution of work. Sign boards and 				
Vehicle Movements	 Traffic congestion Conflicts Vehicle emissions 	High	 origin boards and posters will also be displayed at Sub-project site and adjacent areas as well. Inform the residents about timing, schedule and construction work duration. origin Work will be done in portions so that the half portion of road may be used safely and vehicles movement will not be disturbed. origin Contractor will submit Traffic Management Plan (if required) and it will be approved by the MC and displayed at site before the execution of work and communicated 	Contractor	Visual/ Pictures, Vehicle emission tests reports, GRM Complaints record	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			 to the locals in a timely manner. Vehicle emissions testing will be ensured (Hand plater, Compactor) once during execution of work 				
Site Safety Issues	Accidents	High	Contractor will ensure site safety using safety cautions (night vision), boards, flagmen, cordon tapes for smooth flow of traffic and pedestrians during the construction phase of the Sub-Project.	Contractor	Visual/ Pictures	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team
Public access	Problems for pedestrians. Normal mode of transport may be disturbed during Sub-project execution. 10 schools exist within 100m of the Jaswant Nagar road and 01 school project located within 100m of Old Karkhana road. There will be impediment in the movement of local community during school hours.	Medium	 If it required to provide an alternated access route, contractor will ensure that the alternate access route must consider the safety aspects for all kind of pedestrian i.e. women, children, disabled. Cordon off the construction zone. Ensure to work at night for major part of 	Contractor	No hindrance in the community movement. Visual/ Pictures	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			 work in which heavy machinery may hinder the public accessibility Implement a proper traffic management plan. 				
Occupational Health & Safety	Injuries to workers/LTI	High	 Contractor will follow PMDFC designed Environment, Health and Safety SOPs for Labor/Workers for all activities on the site and these SOPs will be the part of his term of reference and contractual agreement. Workers will be trained by the PMDFC ESM team and guided to follow SOPs and will be provided with necessary PPEs (Safety Helmets, Safety Shoes, Gloves, Chemical Masks etc.) wherever required. First aid will be provided onsite 	Contractor	Visual/ Pictures	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			 Careful monitoring will also be carried out. 				
Laying of coarse base, gravel, sub base	 Injuries to workers 	High	 Contractor will provide Safety Shoes, Hand Gloves, Safety Helmet, Reflective Vest to all the labor. 	Contractor	Visual/ Pictures	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team
Damage to Public Infrastructure/utili ties	 Accidents/Incidents/Inj uries Structural loss: partial removal 13 brick and paver pavements etc. Social Conflicts 	High	 Contractor will ensure no damage to public utilities or structures. Contractor will provide compensation for the damages to entitles accordingly (The compensation amount of 360,000 has been included in the budget estimate for environmental and social management plan implementation. 	Contractor	Visual/ Pictures/payment record	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team
Sexual Harassment- Labor Influx- Child Labor	Social Conflicts	Low	Contractor will give behavioral training to the workforce.	Contractor	Visual/ Pictures/Reported/Comp lains by public during visit	 Daily site visit during construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub- project activities	Potential Env/Soc Impacts	Magnitud e of Impact	Mitigation Measures	Mitigation Implementati on Responsibilit y	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibil ity
			 Contractor will hire local labor for un- skilled works. No child labor is allowed onsite below 14 years. GRM at site level will be ensured to report in case of any such incident 			 Fortnightly/Wee kly Once during the construction phase 	
CoViD-19 SOPs implementation	 Spread of COVID 19 among the labor 	Low	 Contractor will provide face masks to the labor on daily basis to reduce Corona impact. Contractor will follow COVID-19 guidelines during construction works (Annexure iii) 	Contractor	Visual/ Pictures	 Daily site visit during construction phase Fortnightly/Wee kly Once during the construction phase 	• ESFPs • DPO ESM • Supervision Consultants E&S team
	Operational Phase						
Road Maintenance- Road Furniture	AccidentsComplains	Low	 MC will maintain road lighting system for night vision. Road surface will be repaired/maintained by MC. 	Contractor	Visual/ Pictures	•	• MC Officials

7.8. Environmental and Social Management Plan Implementation Budget

Sr.	Description	Quantity	Per Unit Cost (PKR)	Total Cost		
No.	onmental Monitoring		(i raty	(PKR)		
1.1	Drinking Water Quality Testing 32 parameters	2+2	22,000	88,000		
1.2	Air quality monitoring covering CO, SO ₂ , O ₂ , NO ₂ , NO, NOx, CO ₂ , PM2.5, and PM2.10, Smoke (At Jaswant and Old Kharkhana road)	6	85,000	510,000		
1.3	Noise level Monitoring	8	1000	4,000		
		Sı	ubtotal (1)	602,000		
2. Imple	ementation of OHS Requirements					
2.1	Remuneration of Environmental Manager	1 for 3 Months	70,000	210,000		
2.2	Remuneration of Health and Safety Officer (2 months) 1 for 3 Months		50,000	150,000		
2.3	Purchase of PPEs					
a.	Safety Shoes Pairs	25	4,000	100,000		
b.	P. Caps	50	200	10,000		
C.	Hard Hats	30	500	15,000		
d.	Glowing Jackets	60	300	18,000		
e.	Pairs of Gloves	100	110	11,000		
f.	Face Masks	1,000	10	10,000		
g.	Sanitizers	25	300	7,500		
2.5	Medicines (LS)	Lump Sum	10,000	10,000		
2.6	First Aid Box	2	5000	10,000		
	Sign Boards	Lump Sum	25,000	25,000		
2.7	Misc.	Lump Sum	10,000	10,000		
Subtotal (2)						
	Training on EHS, GRM, Ethics					
3.1	Boarding and Loadging	Lump Sum	25,000	25,000		
3.2	Transportation	Lump Sum	25,000	25,000		
3.3	Training Material	Lump Sum	15,000	15,000		

Table 7-2: Environmental Implementation Budget

3.4	Entertainment	Lump Sum	30,000	30,000
3.5	Misc.	Lump Sum	10,000	10,000
Subtotal (3)				105,000
Total (1+2+3)			1,293,500	

Section-8 Capacity Building

8.1. General

A comprehensive program will be followed to strengthen the technical and institutional capacities of the executing agency (MC Khanewal), contractors, and laborers.

Components	Audience	Level	Modality	Frequency	Responsibility
ESMF Site Specific requirements and E&S Management and Mitigation Plan	MO-1 MO-P and MC field staff ⁶	Training	Briefing Presentations Mock Activities	Before execution of sub-project and time to time instructions	PMDFC ESM team
ESMP Implementation and Monitoring Plan	MO-1 MO-P MC field staff	Training	Briefing Presentations Mock Activities		
	Contractor		Briefing	At the time of Contract signing and before execution	DPO-ESM ESFPs
	Labor	Awareness and sensitization	Briefing	Before execution and time to time during execution	DPO-ESM ESFPs
EHS SOPs for Labor/Workers (including women workers)	Contractor	Awareness and sensitization	Briefing and Illustrations	Before execution and time to time during execution	DPO-ESM ESFPs
	Labor/ Awareness workers and sensitization on SOPs Training on Use of PPEs		Presentations Illustrations Mock activities Resource material	Before execution and time to time during execution	DPO-ESM ESFPs
GRM	Contractor	Awareness and sensitization	Briefing	Before execution and time to time during execution	DPO-ESM ESFPs

⁶ For ESFPs and MC field staff, PMDFC will organize time to time trainings and a training/ capacity building program has been designed in this regard

Components	Audience	Level	Modality	Frequency	Responsibility
	Labor/ workers	Awareness and sensitization	Briefing and resource material	Before execution and time to time during execution	DPO-ESM ESFPs
	Public/ communities	Awareness	Briefing during public consultation Resource material	Before and during execution	DPO-ESM ESFPs

Annexure i:

Environment & Social Screening Checklist

Instructions:

Environmental and Social Focal Persons (ESFPs)¹ nominated by the MCs for PCP environmental and social management, will use this checklist in field for environmental and social screening and categorization of each and every sub-project proposed to be executed under the Program.

Deputy Program Officers-Environmental and Social Management deputed by PMDFC in regional offices will technically assist and support the ESFPs/MCs in filling in of this Checklist

It is to be attached with the main document² of sub-projects at planning stage and will be duly signed by the relevant ESFP and endorsed by the respective DPO-ESM

This checklist focuses on environmental issues and social concerns. To ensure that social dimensions are adequately considered, Involuntary Resettlement Screening Checklist will also be used

(iii) The purpose of this E&S Screening Checklists is to identify potential "Negative" impacts of environmental and social attributes or to enhance the existing environmental & social benefits. Use the "remarks" section to discuss any anticipated mitigation measures.

Name of ESFP: Zain Ali MOI Ejaz Pahore MOPName of MC: KhanewalSub-Project Sector: RoadsSub-Project Title: Widening and Improvement of Jaswant Nagar to 88/10R RoadSub- Project Categorization:E-2Date of Screening: 19.10.2022Anticipated Project Activities:

 Dismantling dry masonry/ existing road edging, Scarifying old road surface including removal of debris, Providing and laying base course, Providing and laying bituminous priming coat, Bituminous tack coat, Plant premixed bituminous carpet, Regular excavation dressed, Compaction of earthwork, Providing and laying sub-base course, Providing & Laying Tuff Pavers, Providing & fixing precast Edge Kerb Stone, Watering and ramming of existing road brick edging

Estimated Cost of Subprojects: 163.32 Million PKR Tentative Completion Time/ Duration: 6 Months Estimated Labor for Subproject: 20-25

¹ In all MCs, ESFPs are notified by Local government; MO (I&S) are focal persons for environmental sector and MO(P) are focal persons for social sectors.

² It is meant as PC-I and/or engineering estimates of sub-project

Screening Questions	Yes	No	Remark
A. Project Siting			
Is the Sub-Project area adjacent to or within any of th	e follo	wing:	
Environmentally sensitive areas?			
Legally protected Area		\checkmark	
Any surface water body (river, canal, stream, lake, wetland) within 250 meter of the proposed sub project ³		\checkmark	
Estuarine		\checkmark	
Special area for protecting biodiversity		\checkmark	
Buffer zone of protected area		\checkmark	
Mangroves Forest		\checkmark	
Man-made forest /game reserve, orchid /crops or anyother area of environmental importance		\checkmark	
Socially sensitive /important areas/communities/	peopl	e?	
PCRs and or any site of cultural/religious importance(Graveyard, Shrine, Mosque, Church, <i>Gordwarah</i> ,Temple, Fort, archeological/historical site) within 100 mof the proposed subproject ⁴	~		3 mosques exist along the alignment of the road. There will be no impact on the structure itself. However, temporary impediment in the movement of people during the prayer time. This impact would be mitigated by keeping the passageway clear during prayer time.
Sensitive receptors (Schools, colleges, hospitals andclinics) within 100 meter of the proposed sub project ⁵	~		10 schools are present within 100 m of project interventions. There will be impediment in the movement of local community during school hours. However, this impact will be mitigated by implementing traffic management plan.
Any graveyard of local community (Muslims		_	
or Christians)		\checkmark	
Any demographic or socio-economic aspects of the sub- project area that are already vulnerable (e.g., high incidence of marginalized populations, rural- urban migrants, illegal settlements, squatters, ethnic minorities, people with disabilities, people in old age, socially isolated segments ⁶ of the society and women or children)?		\checkmark	
Already existing infrastructure ⁷ (including public amenities) which may be required to dismantle or maybe affected temporarily by any means?	\checkmark		13 pavements are extended within RoW which will be dismantled during construction of tough pavement alongside road. The affected persons will be paid according to market rate before construction works commence.

B. Potential Environmental Impacts Will the Sub-Project cause			
	of	✓	
2. Cutting of trees?		\checkmark	
3. Disruption to habitats/biodiversity of surroundingecosystem/environment?		✓	There are 153 trees of Shreen, Bairee, Sohanjana, Ficus, Neem, Peepal, Keeker, Sheesham and Bakain are present on both sides of Jaswant Nagar road and 26 trees of the same species are growing along Old Kharkhana road, but outside RoW of road.
4. Generation of wastewater during construction oroperation?		√	
 Pollution of surface water/ground water due towastewater discharge from construction site or due to direct/indirect disposal of waste water? 		~	
6. Alteration of surface water hydrology of waterways resulting in increased sediment in streams/rivers or due to increased soil erosion a construction site?	n	~	
7. Deterioration of surface water quality due to si runoff and sanitary wastes from worker-base campsand chemicals used in construction?		~	
8. Over pumping of ground water, leading tosalinization and ground subsidence?		\checkmark	
9. Serious contamination of soil due to constructionworks?		\checkmark	
10. Aggravation of solid waste problems in the area?	~		Construction waste generated during road improvement will be collected and disposed of at designated place to avoid solid waste problem in the project area
11. Generation of hazardous waste?	~		Solid waste containing bitumen will be generated during dismantling of existing road which will be disposed of to a designated place approved by the MC
12. Increased air pollution due to sub- projectconstruction and operation?	√		Air pollution in the project area may be increased temporarily due to dust and smoke generation while executing project activities. Dust wil be mitigated through water sprinkling at dust prone areas on daily basis. Vehicles and machinery will be kept well-tuned to avoid smoke emissions
13. Noise and vibration due to sub-project constructionor operation?	~		Noise and vibrations may increase in the project area during construction works due to movement of project vehicles and

			n
			machinery such as compaction roller. Noise levels will be monitored daily using noise meter.
14. Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents due to solid/liquid?		\checkmark	
15. Use of chemicals during construction?	~		Lubricants for engines of machinery and vehicles, fuel in vehicles, bitumen and kerosene oil for roads coating will be used. These chemicals are harmful for workers as well as community. All workers will be provided PPEs and general public will be kept away from work sites to avoid impact
C: Potential Social Impacts Will the Sub-Project cause			
1. Impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to Physical Cultural Resources (PCRs)?	No		
 Displacement or involuntary resettlement of people? (physical displacement and/or economic displacement) (If "Yes", please also fill Involuntary Resettlement Screening Checklist) 	~		Details about impacts such as livelihood disturbance, loss or damage to public assets, loss of access are given in detail in ARAP and Chapter 4 and in stakeholder consultation section
 Disproportionate impacts on the poor, women and children and or other vulnerable groups ⁸(mentioned above)? 		\checkmark	
4. Temporary impediments in movements of people/transport and animals?	~		There will be temporary impediment in the mobility of local community due to project interventions. This will be mitigated by implementing traffic management plan
5. Large population influx during sub-project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		\checkmark	
6. Social conflicts if workers from other areas are hired?		\checkmark	
7. Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?	~		Some issues related to occupational health and safety may arise during transportation of materials, use of hazardous chemicals, excavation, removal of debris, laying of stone and compaction of road
8. Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?	\checkmark		Health and Safety risks for community may arise during transportation of construction materials and disposal of waste debris, excavation and operation of

			compaction machinery at site
9. Community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or wheretheir failure could result in injury to the community throughout project construction, operation and decommissioning?	√		Traffic management plan will be developed and implemented at site by the contractor to mitigate the anticipated impacts
10. Any impact on sensitive receptors (mentioned above)	V		10 schools exist within 100 m of the project interventions. There will be impediment in the movement of local community during school hours. However, this impact will be mitigated by implementing traffic management plan.
11. Any impact of negative nature on already existing infrastructure including public amenities		~	

Prepared by

- Moazzam Ali- Environmental Specialist, MMP Saqib Sadiq-Sociologist, MMP Zafar Iqbal-Resettlement Expert, MMP i.
- ii.
- iii.

INVOLUNTARY RESETTLEMENT SCREENING CHECKLIST

Widening and Improvement of Jaswant Nagar to 88/10R Road

Name of ESFP:	Ejaz Pahore MOP			
Name of MC:	Khanewal			
Sub-Project Sector:	Roads			
Sub-Project Title:	Widening and Improvement of Road from Jawant Nagar to 88/10r Road of MC Khanewal			
Sub- Project Categorization:	S-1 S-2 S-3			
Date of Screening:	19-10-2022			

SECTION 1	Yes	No	Expected	Remarks
Does the project require land acquisition? Yes/No		✓		13 pavements are extended at RoW of MC Khanewal which will be required to dismantle
If yes, then describe the type of land being acquired from the categories below:				
Has any Anti Encroachment Drive (AED) been conducted at the proposed subproject location by the Government since 2018 ⁷ ? Confirm from MC and local communities during public consultation		✓		It was confirmed during public consultation
Land (Quantify and describe types of land being acquired in "remarks column".		\checkmark		
Government and LG owned land free of occupation (agriculture or settlement)	~			It is MC owned land with 13 encroachments
Government or state-owned land (other than LG) free of occupation (agriculture or settlement)		√		
Private land		\checkmark		
Residential		✓		
Commercial		\checkmark		
Agricultural		\checkmark		
Communal		\checkmark		
Others (specify in "remarks").		\checkmark		
Name of owner/owners and type of ownership document if available.		~		
If land is being acquired, describe any structures constructed on it		√		

⁷. The sub-projects have to avoid all locations where any Government led AED has been conducted, such sites are ineligible for WB financing

SECTION 1	Yes	No	Expected	Remarks
Land-based assets:		\checkmark		
Residential structures		√		
Commercial structures (specify in "remarks")		~		
Community structures (specify in "remarks")		\checkmark		
Agriculture structures (specify in "remarks")		√		
Public utilities (specify in "remarks")		√		
Others (specify in "remarks")		\checkmark		
If agricultural land is being acquired, specify the following:		~		
Agriculture related impacts		\checkmark		
Crops and vegetables (specify types and cropping area in "remarks).		~		
Trees (specify number and types in "remarks").		\checkmark		
Others (specify in "remarks").		\checkmark		
Affected Persons (APs)		\checkmark		
Will any people be displaced from the land when acquired? Yes/No		~		
Number of APs		\checkmark		
Males		\checkmark		
Females		√		
Titled land owners		\checkmark		
Tenants and sharecroppers		\checkmark		
Leaseholders		~		
Agriculture wage laborers		\checkmark		
Encroachers and squatters (specify in remarks column)		✓		
Vulnerable APs (e.g. women headed households, minors and aged, orphans, disabled persons and those below the poverty line). Specify the number and vulnerability in "remarks".		~		
Others (specify in "remarks")		\checkmark		
How will people be affected?	~			13 people will be affected due to loss/damage to asset and will require compensation

Prepared By: MOI & S Name: Zain Ali Date: 19-10-2022

Endorsed By: DPO ESM Name: Umer Farooq Date: 19-10-2022

Environmental & Social Screening Checklist

Instructions:

Environmental and Social Focal Persons (ESFPs)¹ nominated by the MCs for PCP environmental and social management, will use this checklist in field for environmental and social screening and categorization of each and every sub-project proposed to be executed under the Program.

Deputy Program Officers-Environmental and Social Management deputed by PMDFC in regional offices will technically assist and support the ESFPs/MCs in filling in of this Checklist

It is to be attached with the main document² of sub-projects at planning stage and will be duly signed by the relevant ESFP and endorsed by the respective DPO-ESM

This checklist focuses on environmental issues and social concerns. To ensure that social dimensions are adequately considered, Involuntary Resettlement Screening Checklist will also be used

(iii) The purpose of this E&S Screening Checklists is to identify potential "Negative" impacts of environmental and social attributes or to enhance the existing environmental & social benefits. Use the "remarks" section to discuss any anticipated mitigation measures.

Name of ESFP: Zain Ali MOI Ejaz Pahore MOP

Name of MC: Khanewal

Sub-Project Sector: Roads

Sub-Project Title: Widening and Improvement of Old Karkhana Road

Sub- Project Categorization: E-2 S-2

Date of Screening: 19.10.2022

Anticipated Project Activities:

 Dismantling dry masonry/ existing road edging, Scarifying old road surface including removal of debris, Providing and laying base course, Providing and laying bituminous priming coat, Bituminous tack coat, Plant premixed bituminous carpet, Regular excavation dressed, Compaction of earthwork, Providing and laying sub-base course, Providing & Laying Tuff Pavers, Providing & fixing precast Edge Kerb Stone, Watering and ramming of existing road brick edging

Estimated Cost of Subprojects: 163.32 million

Tentative Completion Time/ Duration: 6 Months

Estimated Labor for Subproject

³ In all MCs, ESFPs are notified by Local government; MO (I&S) are focal persons for

environmental sector and MO(P) are focal persons for social sectors. ⁴ It is meant as PC-I and/or engineering estimates of sub-project

Screening Questions	Yes	No	Remarks
A. Project Siting			
Is the Sub-Project area adjacent to or within any of	f the f	ollov	ving:
Environmentally sensitive areas?			
Legally protected Area		\checkmark	
Any surface water body (river, canal, stream,		,	
lake, wetland) within 250 meter of the proposed sub project ³		\checkmark	
Estuarine		\checkmark	
Special area for protecting biodiversity		× ✓	
Buffer zone of protected area			
<u>^</u>		\checkmark	
Mangroves Forest		\checkmark	
Man-made forest /game reserve, orchid /crops or anyother area of environmental importance		\checkmark	
Socially sensitive /important areas/communities	s/ neo	nle?	
PCRs and or any site of cultural/religious		pic.	
importance(Graveyard, Shrine, Mosque,			
Church, Gordwarah,		\checkmark	
Temple, Fort, archeological/historical site) within			
100 mof the proposed subproject ⁴			
Sensitive receptors (Schools, colleges, hospitals and clinics) within 100 meter of the proposed sub			1 school exists within 100 m of the
project ⁵			project interventions. There will be impediment in the movement of local
	\checkmark		community during school hours.
	•		However, this impact will be
			mitigated by implementing traffic
			management plan.
Any graveyard of local community		,	
(Muslims or Christians)		\checkmark	
Any demographic or socio-economic aspects of			
the sub- project area that are already vulnerable			
(e.g., high incidence of marginalized populations,			
rural-urban migrants, illegal settlements,		\checkmark	
squatters, ethnic minorities, people with		·	
disabilities, people in old age, socially isolated segments ⁶ of the society and women or			
children)?			
Already existing infrastructure ⁷ (including			A 10 feet long and 3 feet wide tough
public amenities) which may be required to			tiles pavement laid at the entrance
dismantle or maybe affected temporarily by any means?	\checkmark		Public Health Engineering
	v		Department will be required to be
			removed for construction of 3 feet
R Potential Environmental Impacts			tough paver along road
B. Potential Environmental Impacts Will the Sub-Project cause			
Disturbance to habitats/ biodiversity			
ofenvironmentally sensitive or protected		\checkmark	
areas?			
Cutting of trees?		\checkmark	
Disruption to habitats/biodiversity of			26 trees of Keeker, Sheesham and
surroundingecosystem/environment?		\checkmark	Bakain are on both sides of road, but
			outside RoW of road.

Ibid.

⁵ According to Environmental Assessment Guidelines adopted by Punjab EPA

⁶ Ibid.

⁶due to caste, creed, religion or gender e.g. transgender

⁷Sewerage /Drainage system, Water supply lines, tube-wells, WAPDA/Telephone transmission lines/electric poles, Railway tracks, Gas pipelines, Roads, Shops/Plazas, Banks, Industry, Disposal stations etc.

Conservation of wastewater during construction or			
Generation of wastewater during construction or operation?		\checkmark	
Pollution of surface water/ground water due to wastewater discharge from construction site or due to direct/indirect disposal of waste water?		\checkmark	
Alteration of surface water hydrology of waterways resulting in increased sediment in streams/rivers or due to increased soil erosion at construction site?		\checkmark	
Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		~	
Over pumping of ground water, leading to salinization and ground subsidence?		\checkmark	
Serious contamination of soil due to construction works?		\checkmark	
Aggravation of solid waste problems in the area?	\checkmark		Construction waste generated during road improvement will be collected and disposed of at designated place to avoid solid waste problem in the project area
Generation of hazardous waste?	\checkmark		Solid waste containing bitumen will be generated during dismantling of existing road which will be disposed of to a designated place
Increased air pollution due to sub- projectconstruction and operation?	V		Air pollution in the project area may be increased temporarily due to dust and smoke generation while executing project activities. Dust will be mitigated through water sprinkling at dust prone areas on daily basis. Vehicles and machinery will be kept well-tuned to avoid smoke emissions
Noise and vibration due to sub-project constructionor operation?	~		Noise and vibrations may increase in the project area during construction works due to movement of project vehicles and machinery such as compaction roller. Noise levels will be monitored daily using noise meter.

	1	1	
Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents due to solid/liquid?		\checkmark	
Use of chemicals during construction?	~		Lubricants for engines of machinery and vehicles, fuel in vehicles, bitumen and kerosene oil for roads coating will be used. These chemicals are harmful for workers as well as community. All workers will be provided PPEs and general public will be kept away from work sites to avoid impact
C: Potential Social Impacts Will the Sub-Project cause			
Impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to Physical Cultural Resources (PCRs)?	No		
Displacement or involuntary resettlement of people? (physical displacement and/or economic displacement) (If "Yes", please also fill Involuntary Resettlement Screening Checklist)		~	
Disproportionate impacts on the poor, women and children and or other vulnerable groups ⁸ (mentioned above)?		\checkmark	
Temporary impediments in movements ofpeople/transport and animals?	~		There will be temporary impediment in the mobility of local community due to project interventions. This will be mitigated by implementing traffic management plan
Large population influx during sub-project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		\checkmark	
Social conflicts if workers from other areas are hired?		\checkmark	
Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?			Some issues related to occupational health and safety may arise during transportation of materials, use of hazardous chemicals, excavation, removal of debris, laying of stone and compaction of road
Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?	\checkmark		Health and Safety risks for community may arise during transportation of construction materials and disposal of waste debris, excavation and operation of compaction machinery at site

Community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessibleto members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?	\checkmark	Traffic management plan will be developed and implemented at site by the contractor to mitigate the anticipated impacts
Any impact on sensitive receptors (mentioned above)	\checkmark	1 school exists within 100 m of the project interventions. There will be impediment in the movement of local community during school hours. However, this impact will be mitigated by implementing traffic management plan.
Any impact of negative nature on already existing infrastructure including public amenities	\checkmark	A 10 feet long and 3 feet wide tough tiles pavement laid at the entrance Public Health Engineering Department will be required to be removed for construction of 3 feet tough paver along road

Prepared by

- i. Moazzam Ali- Environmental Specialist, MMP
- ii. Saqib Sadiq-Sociologist, MMP
- iii. Zafar Iqbal-Resettlement Expert, MMP

INVOLUNTARY RESETTLEMENT SCREENING CHECKLIST

Widening and Improvement of Old Karkhana Road

Name of ESFP:	Ejaz Pahore MOP
Name of MC:	Khanewal
Sub-Project Sector:	Road
Sub-Project Title:	Widening and Improvement of Old Karkhana Road
Sub- Project Categorization:	S-1
	S-2
	S-3

Date of Screening: 19-10-2022

SECTION 1	Yes	No	Expected	Remarks
Does the project require land acquisition? Yes/No		×		A 10 feet long and 3 feet wide tough tiles pavement laid at the entrance Public Health Engineering Department will be required to be removed for construction of 3 feet tough paver along road
If yes, then describe the type of land being acquired from the categories below:				
Has any Anti Encroachment Drive (AED) been conducted at the proposed subproject location by the Government since 2018 ⁸ ? Confirm from MC and local communities during public consultation		~		It was confirmed during public consultation
Land (Quantify and describe types of land being acquired in "remarks column".		~		
Government and LG owned land free of occupation (agriculture or settlement)				It is MC owned land 1 encroachment of 10 ft pavement
Government or state-owned land (other than LG) free of occupation (agriculture or settlement)		~		
Private land		~		
Residential		~		
Commercial		~		
Agricultural		~		
Communal		~		
Others (specify in "remarks").		~		
Name of owner/owners and type of ownership document if available.		✓		
If land is being acquired, describe any structures constructed on it		✓		
Land-based assets:		~		
Residential structures		√		

⁸. The sub-projects have to avoid all locations where any Government led AED has been conducted, such sites are ineligible for WB financing

SECTION 1	Yes	No	Expected	Remarks
Commercial structures (specify in		✓	•	
"remarks")				
Community structures (specify in		\checkmark		
"remarks")			-	
Agriculture structures (specify in		\checkmark		
"remarks") Public utilities (specify in		✓		
"remarks")		v		
Others (specify in "remarks")		✓		
Suicis (speeny in Tentarks)				
If agricultural land is being		✓		
acquired, specify the following:				
Agriculture related impacts		✓		
Crops and vegetables (specify		✓		
types and cropping area in		· ·		
"remarks).				
Trees (specify number and types in		✓		
"remarks").				
Others (specify in "remarks").		✓		
Affected Persons (APs)		\checkmark		
Will any people be displaced from		\checkmark		
the land when acquired? Yes/No				
Number of APs		✓		
Males		\checkmark		
Females		✓		
Titled land owners		✓		
Tananta and shananananan		✓		
Tenants and sharecroppers		×		
Leaseholders		✓		
A grientano en laboren		✓		
Agriculture wage laborers		v		
Encroachers and squatters (specify		✓		
in remarks column)				
Vulnerable APs (e.g. women		✓		
headed households, minors and				
aged, orphans, disabled persons				
and those below the poverty line).				
Specify the number and				
vulnerability in "remarks". Others (specify in "remarks")		✓		
omers (specify in remarks)		Ť		
How will people be affected?		✓		

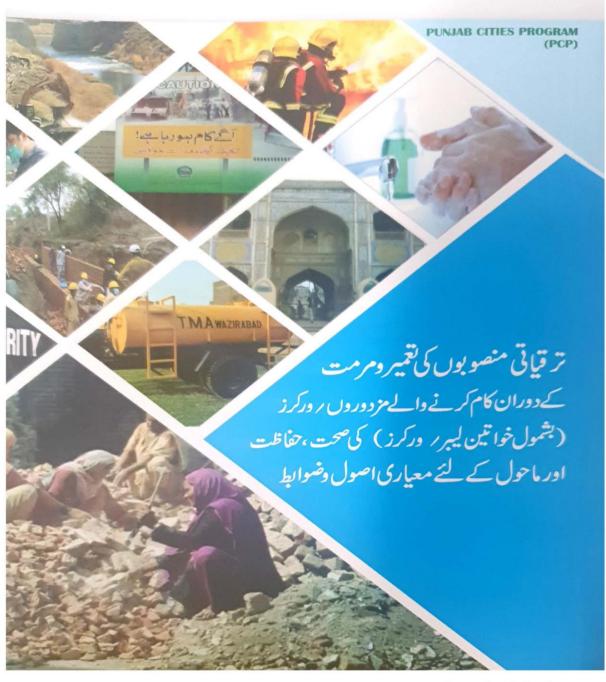
Prepared By: MOI & S

Name: Zain Ali

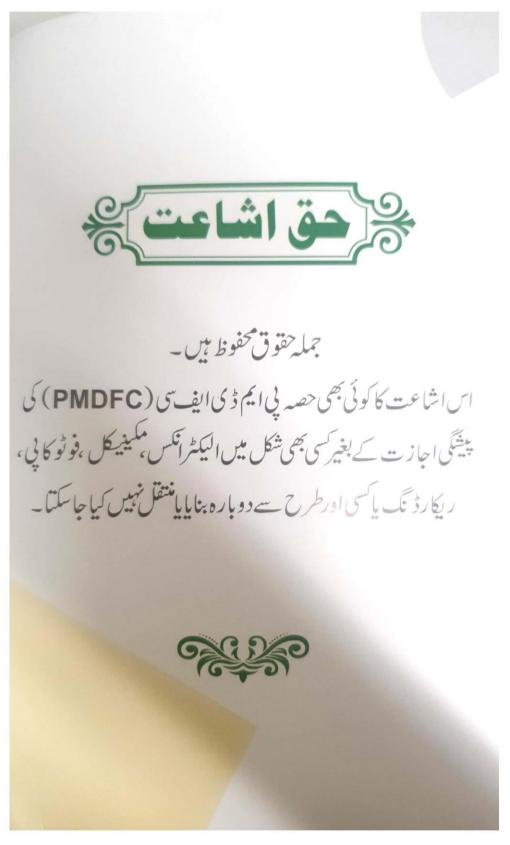
Date: 19-10-2022

Endorsed By: DPO ESM Name: Umar Farooq Date: 19-10-2022

Annexure ii: EHS SOPS for Labors/Workers (Including Women Labor/worker) for Construction of Development Project, (URDU)



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لوکل گور نمند ایند کمیونی ڈویلپرنٹ ڈیپار شمنٹ اور پنجاب میونیل ڈویلپرمنٹ فند کمپنی (PMDFC) نے ورلڈ بینک کے اشتراک سے بنجاب سینیز پروگرام (PCP) کا کامیابی سے اجرا کردیا ہے . اس منصوب کے تحت صوبہ پنجاب کے 16 چھوٹے شہروں (MCs) بشول بہاولنگر ، بور یوالا ، خانیوال ، کوٹ ادو، دہاڑی ، گوجرہ ، جھنگ ، کمالیہ، ادکا ڈا، ڈسکہ، حافظ آباد، جہلم ، کاموکی ، مرید کے اختراک سے ترقیاتی کاموں پر کامیابی سے کام جاری ہے ۔ ان ترقیاتی منصوبوں میں ویسٹ منڈ میں ، حافظ آباد، جہلم ، کاموکی ، مرید مرت ، کمیونی پارٹ کی بحالی اور قدرتی آفات کی روک تھام کے منصوبہ جات شامل ہیں ۔

، پنجاب سیٹیز پروگرام (PCP) کے منصوبہ جات کی تعمیل کے دوران سماجی اور ماحولیاتی مسائل کی جانچ پڑتال اوراس کے طل کے لئے انواز منطل اینڈ سوشل سیف گارڈز (ESSs) ٹیم نے انوائز منطل اینڈ سوشل مینجمنٹ فریم ورک (ESMF) بنایا ہے . مختلف منصوبہ جات ای فریم ورک کی روسے پایہ سیمیل تک پنچ رہے ہیں۔

تعمرانی اور ترقیاتی کاموں کی تحمیل میں تعمیراتی جگہوں پر کام کرنے والے مزدوروں رایبر (بشمول خواتین) کی صحت اور کام کرنے کے دوران حفاظت بہت اہمیت رکھتی ہے - اس اہم مسئلہ کو للحوظ خاطر رکھتے ہوئے، پی ایم ڈی ایف سی نے زیر اہتمام پنجاب سٹیز پروگرام کی انوائز نمنٹ اینڈ سوشل مینجنٹ ٹیم نے " تر قیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے مزدوروں، ورکرز (بشمول خواتین لیبر رورکرز) کی صحت، حفاظت اور ماحول کی لیے بنیا دی اصول وضوالط" مرتب کے ہیں تا کہ متعلقہ میونیل کیٹیز /کارپوریشز (MCs) کے عہد یداران اور تھیکیداران کو آگاہی فراہم کی جائے۔



اغراض ومقاصد ا_ بحوزہ معاری اصول وضوابط پنجاب سیٹیز پروگرام (PCP) کے تحت پنجاب میونیل ڈویلیمنٹ فنڈ کمپنی (PMDFC) کے ماہرین ما حوالیات نے پر وگرام ڈائر یکٹر (PCP) اور ڈپٹی پر وگرام ڈائر یکٹر (PCP) كى زىرىكرانى تىكىل ديخ بين-۲_شهری ترتی سے ترقیاتی منصوبہ جات کی تغمیر دمرمت میں مز دور ، در کرز بنیادی کردار ادا کرتے ہیں۔ ان (SOPs) کابنادی مقصد مز دور ، در کرز (بشمول خواتین لیبر مر درکرز) کو تعمیراتی جگهوں (Constrcution sites) اور ليبر كيميس ميں ماحولياتي اور سماجي تحفظ فراجم كرنا اورصحت، ماحوليات اوركسي خطرناك صورتجال ے بچنے کے لئے حفاظت فراہم کرنا ہے۔ ۳- ی SOPs (PCP) پنجاب سیمیز پروگرام کے تحت 16 شہروں کی میونسپل کمیشیز/کاریوریشنز میں تقمیر ومرمت کے تمام پراجیکٹس برلاكوہوں گے۔ ۳- ی SOPs مزدوروں، کام کرنے والوں رد یہاڑی دار (بشمول خواتین) پر بلاتخصیص لا گوہوں گے۔ ۵-ان SOPs كوموثر اوریقینی بنانے کے لئے انھیں ٹھکید اروں کے كنثريك كاحصيه بنانااوران يتمل درآ مدكرانا ميونيل كميشيز/كاريوريشنزكي ذمه داری ہے۔ جسے بی ایم ڈی ایف سی کی متعلقہ پر وگرام ٹیم یقینی بنائے گ_

پاکستان کی ترقی میں تغییراتی کاموں کے دو<mark>ران کا م کرنے والامزدور طبقہ</mark> . نہایت اہمیت کا حامل ہے اور ایکے صحت و<mark>تندر تق سے متعلق مسائل کا</mark> موَثر حل انتہائی ضروری ہے۔ " تر قابق منصوبوں کی تغییر و مرمت کے دوران کام کرنے والے مزدوروں ، ورکرز (بشمول خواتین لیبر،ورکرز) محت، حفاظت اور ماحول کیلئے بنیادی اصول وضوارط ** کی اشاعت و تر ویچ اوران پر بروفت عمل درآمد بے حد ضروری ہے جس سے اس طبقے کے بنیا دی حقو<mark>ق کا تحفظ یقنی بنایا جا</mark> سکے گااوراس طرح اس طبقے کی کارکردگی میں بھی بہتری نظراً نے گی۔ان اصولوں کے تحت ہر ٹھکیدارکو ورکرز کی صحت اور حفاظت کی ذمہ داری دی گئی ہے۔مزدور تغمیراتی کا موں کے دوران خطرات کے مطابق ذاتی حفاظتی سامان بھی استعال کریں گے جس سے دوران کام حادثات میں بھی نمایاں کمی نظر آئے گی۔ ماحولیات اور صحت کے اصولوں کو مدنظر رکھتے ہوئے ہرسطح پر ہم اس بات کو یقینی بنانے کی کوشش کریں گے کہ ہماری پالیسیاں اور طرزعمل فعال ہوں۔ ماحولیات، صحت اور حفاظت (EHS) کے اصولوں کو ا پنانے میں کسی بھی قشم کا شمجھو نہ نہیں کیا جائے گا۔ میں امید کرتا ہوں کہ ان اصول وضوابط کی روشنی میں مز دورر ورکرز (بشمول خوانتین لیسر) کے حقوق کی پاسداری کوایک نیا رخ ملے گا اور حکومتی عہد بداران اور تھیکیداران بھی اپنی ذمّہ داریوں کا احساس کریں گے۔اوراس سلسلے میں پی ایم ڈی ایف سی اور پنجاب سیٹیز پردگرام کی انوائز منت ایند سوشل سیف گارڈ ز (ESSs) طیم بلا شبہ مبار کمباد کی مستحق ہے اور بیاتو قع کی جا سکتی ہے کہ وہ ستقبل میں ان قواعد وضوابط کی تکرانی کے لئے بھر پورا قدامات کریں گے۔ محمد عا مرند مد پروگرام دائر یکر پنجاب سیلیز پروگرام (PCP)

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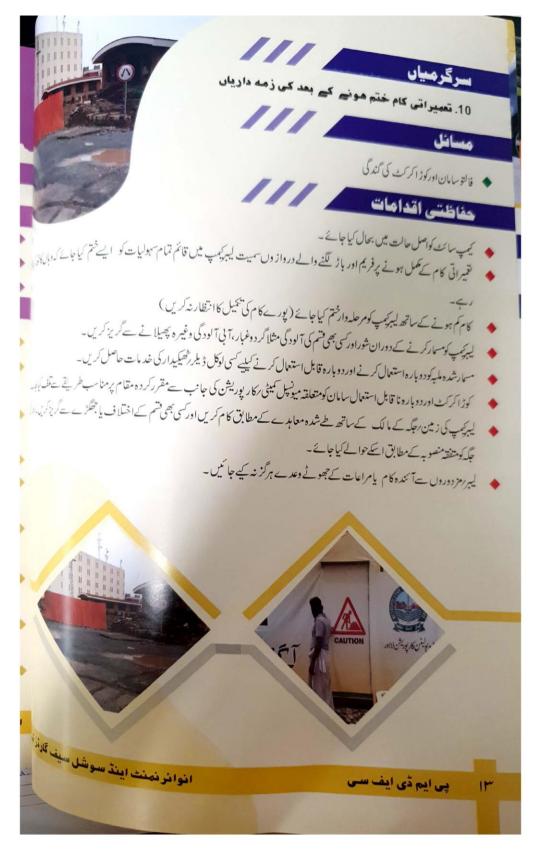


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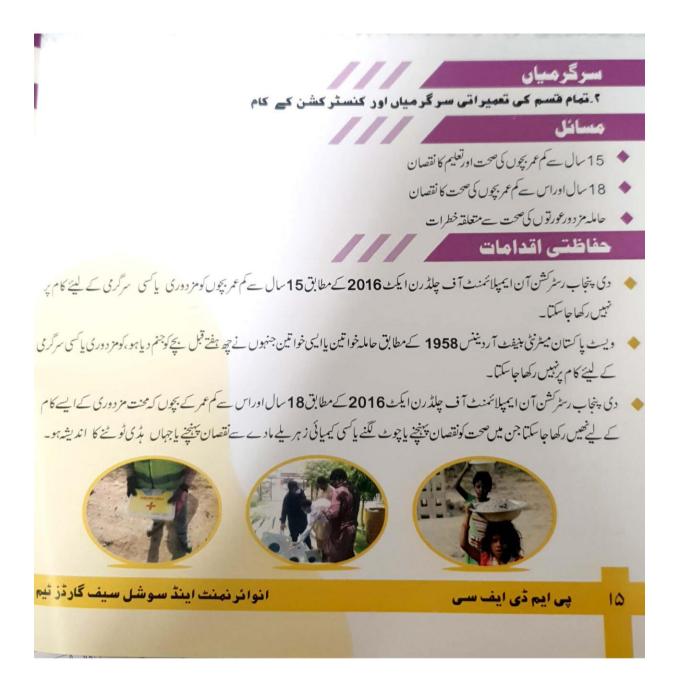
ECURITY ۷. سکیور ٹی اور حفاظت کی سہو لیات مسائل ا عدر ٹی کے مسائل چورى كاخطره دہشت گردی کا خطرہ • آل للنے کے خطرات حفاظتي اقدامات 🔶 کیمی کے گردحفاظتی باڑ کی فراہمی الفتى المكار (بوليس يالجى سكيور ٹى گار ڈرہوم گار ڈوغيرہ) كى تعيناتى 🔶 کیمی میں موجودافراد کی صحیح تعداداور آمد ورفت کا حساب کتاب رکھنے کے لیے رجسٹر میں اندراج۔ آگ ۔ یواؤ کے لیئے لیرکیمیں بنانے میں ایسا کوئی میٹیر پل استعمال نہ کیا جا ہے۔ جس سے آگ لگنے کا اندیشہ ہو۔ بارش،طوفان،سیلاب وغیرہ ہے: سچنے کیلیے اس بات کویقینی بنایا جائے کیمی سائٹ اور عارض کمر رے م بائش گا میں محفوظ رہیں۔ لیبر کیمیس میں آگ بجھانے دالا آلات موجود ہوں جن پرانگی آخری معیاد کی تاریخ درج سے اور سکیورٹی گارڈیا لیبر وغیرہ میں سے نہیں ہیں ہے۔ یہ یہ پر میں میں آگ بچھانے دالا آلات موجود ہوں جن پرانگی آخری معیاد کی تاریخ درج سے اور سکیورٹی گارڈیا لیبر وغیرہ میں سے نہیں ہے۔ افرادکوآگ بچھانے دالے آلداستعال کرنے کی تربیت دی جائے۔ ليركيب مين داضح مقامات پر بنگاى رايم جنسى را اط نمبر نمايان درج جون -تھیکیدار، لیبر کے ساتھ ماہانہ میٹنگز میں ایمرجنسی کی صورت میں ہرایک مزدور کواسکی ذمہ دا**ریوں اورتر بیت سے آگ**اہ کرےاور اکا صلا کنسکنٹ اور میونیل میٹی رکار پوریشن کوفراہم کرے۔ اور کسی بھی قسم کی شکایات ایک رجسٹر میں درج کرے۔ انوائر نمنت اینڈ سوشل سیف گا پی ایم ڈی ایف سی

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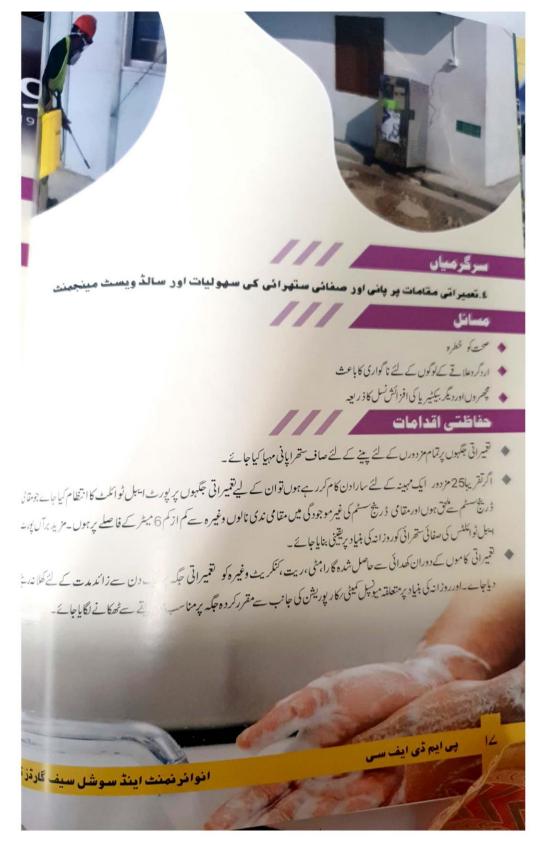


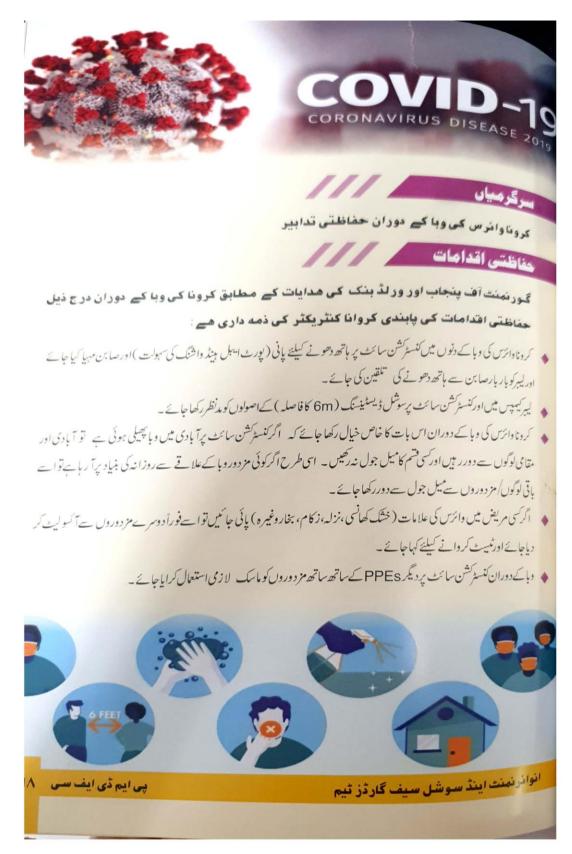
ا تمام قسم کے تعمیر اتی سر گر میاں اور کام مسائل انج يزادر چونيس وغيره نامناب ديکير بحال اور بروقت امداد نه ملخ ک باعث بلاکت دہشت گردی اور عیورٹی سے متعلق خطرات مفاظتي اقدامات 🔷 تمام مزدوروں رلیبر سے مقامی ربین الاقوامی معیار کے مطابق مناسب حفاظتی اورقا نونی ضوابط کی پیروی کر دائی جائے۔ کام کی جگہ پر اردگرد کے علاقوں میں موجود دہشت گردی اور سکیورٹی کے خطرات کے مطابق حکمت عملی کی بروقت تیاری اور ایک محفوظ وصحت مند احل مها كما حات-م مز دورورں رلیبر کیلیے ذاتی حفاظت کے سامان (PPEs) کی فراہمی مثلاحفاظتی جوتے، ہیلمٹ، ماسک، دستانے، حفاظتی لباس، چیشمے، چہرے اور کان کی حفاظت کے سامان وغیرہ کی فراہمی مام دوروں رلیبر کوذاتی حفاظت کے سازوسامان کے بارے میں مکمل آگاہی اوراستعال کے طریقے کارکے بارے تربیت کا نتظام۔ اگر تعمیراتی کام ایک ماہ سے زائد عرصہ کیلئے جاری رہنا ہوتو تمام مدت کے لیئے صحت، صفائی اور تربیت یافتہ ماحولیات کی تعیناتی کی جائے جو مز دوروں کی صحت، صفائی اور ماحولیات کے امور کی تکرانی کرے اور انھیں تربیت وآگا ہی فراہم کرے۔ یحیراتی کاموں کے دوران کسی چوٹ لگنے رانج پز کی صورت میں مز دور رلیبر کے علاج معالیج کی سہولت مہیا کرنا اور بروقت ہپتال رڈ سپنسری و غیرہ پہچانا تھیکیدار کی ذمہ داری ہے۔ از یہ برآل دوران تعمیر تغییراتی کام کی وجہ سے لگنے والی چوٹ رانج پڑ کے نتیجے میں ہلاکت ہوجانے کی وجہ سے مز دور رلیبر کی انشورنس اور اس کر بروقت ادائیگی کویفینی بنایا جائے۔ ایرجنسی رابطه نمبر مثلا ریسکیو 1122 یا 15 اور دیگر قریبی میتالوں ر ڈسپنسری وغیرہ کے نمبر تعمیر اتی جگہوں پر واضح درج ہونے جاہیں اور کال کے سہولت فراہم کی جائے۔ شہری ترتی کے تعمیراتی منصوبہ جات کے اغاز سے قبل صحت ، مذہبی اموراور شہری تحفظ رسکیورٹی فراہم کرنے والے مقامی اداروں کو آگاہ رکھا جا۔ ادرال سلسلے میں متعلقہ میونیل کمیٹی رکار پوریشن کے تعاون سے موثر حکمت عملی تشکیل دی جائے۔ انوائر نمنت اینڈ سوشل سیف گارڈز ٹیم یی ایم ڈی ایف سی





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تقیراتی کاموں کے دوران خطرات/ حادثات سے بچنج کیلیئے سمامان برا۔ بح د ابی تفاظمت کاخلار تجویز کردہ سامان برائے ذاتى حفاظت تعمير اتى كام ار بن دالے ذرات کا استعال جیے پکھلی ہوئی مقصد حفاظتي عينكيس د حات ما نع سیمیکل گیسیں، اور بخارات، روشنی کی انکدوں اور چہرے کی الیے تمام کام جن میں گرنے کا خطرہ ہو، باندی پر او پراوراطراف سے نقصان سے بچاؤ کیلئے پلاسک سے میلمد ٹ حفاظت/ تحفظ كام كرنا بغيراتي كام كوسنجا لخ اوردوسرى جكه ي ساعت کی حفاظت کے آلہ جات جیسے کن پوٹن سر كي حفاظت/ تحفظ فتقل كرف والحكام-کهدائی/شور پیداکر فے دالے کام یا بھاری یا بیئر بلگ ملنے اور گرنے والی اشیاء، ما تعات اور کیمیائی مشینری استعال کرنے کی وجہ سے شور۔ ت کی حفاظت/ تحفظ اتمام تعيراتي كام جن ميں چيزوں كاگرنايا تھمانا، مواد سے بیجاؤ کیلیے حفاظتی جوتے یا بوٹ نو سلى اشاش مور - كلاف والاياكرم مائع، پاؤں کی حفاظت/ تحفظ ر برژیا مصنوعی مواد(نیورو پین)، چرا، منیل، بجرب كي د هير بحجر الثلانا-جسماني صحت كيليح نقصان دوسامان جيسے كچر بے كو غير موصل موادے بے گلوز سنجالنا،ا بیے کام جس میں کاٹ یا گہرے دخم لگنے ماتهوں کی حفاظت/ تحفظ كانديشة بو،ارتعاش، بہت زيادہ درجه حرارت -ایک جگہ سے دوسری جگہ لے جانے والے یا RI ایک ہی جگہ پڑے مواد کی فراہمی تعمیراتی جگہ د حول، دهند، شعلی گیسیں، دهوال، بخارات 17 ربحاة كاسامان چرے کے ماسک جن میں دھول ہٹانے اور ہواکوصاف رکھنے کیلئے (کیمیائی مواد، Ê تحفظ تنفس دھند، بخارات اور گیسوں سے)مناسب فلٹر ته سيجن کې کې لگے ہوں مناسب ميريل سے بي غير موصل كير، تمام کام جن میں شدید درجہ حرارت ، نقصان وہ مواد، حیاتیاتی ایجن، چھوٹے یا گہرے زخم لگنے کا اييرن وغيره مسم / ثانگوں کی حفاظت تحفظ انديشهو ہیلمٹ، حفاظتی عینکیں ، کے طور اورر بڑ 12 تمام تعميراتي كام جو 4 فٹ يااس سے زيادہ کی کے بوٹ اونچائی پر کام کرتے ھوئے ادنیائی پر کے جانے ہوں بشمول سٹریٹ لائٹس حفاظت وفيره اونچائی پر کام کرتے ھوئے ابک ساتھی فر د مسلسل ایک دن کیلئے کیے جانے ہوں حفاظت انوائر نمنت ایند سوشل سیف گارڈ یی ایم ڈی ایف سی 19

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Summary of Reco	mmended Personal Protective t According to Hazard
Equipmen	t According to Hazard

Objective	Workplace Hazards	Suggested PPE	Pi
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side- shields, protective shades, etc.	Pi
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.	
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).	0
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection against moving & falling objects, liquids and chemicals.	
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.	
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapors and gases). Single or multi-gas personal monitors, if available.	
	Oxygen deficiency	Portable or supplied air (fixed	
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and	Insulating clothing, body suits, aprons etc.	In the
Working at *height	Rehabilitation Projects	Helmet, Safety glasses,	-
meight	New Construction Projects	Anchor, belt, lanyard,	
	of PPEs is required for any height of 4 ft or more.		
ی ایف سبی ۲۰	پی ایم ڈز	نىل سيف گارڈز ٹيم	سوت

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فدراني جكه رمقام پرداخ بور ذقصب كرديج جائمين ، جن پر درج ذيل پيغامات را حكامات لكھے ہوں : یرن بید او (a) تیراتی کام کی توعیت (b) ریک میں رکاوٹ کی صورت میں متبادل رائے کا نشان اور عارضی رکاوٹ کا پیغام (c) ایر جنسی اور شکایت کیلیئے را ایل نبرز (م) (PMDFC)(d) کی جانب سے جاری کردہ ساجی وماحولیاتی پیغامات پریٹنی یوسٹرز۔ قمرانی کام کی جگہ کے ارد گرد 100 میٹر تک کی حدود میں موجود ثقافتی، ساجی، مذہبی ورثہ ، تاریخی عمارتوں اور مذہبی مقامات جیسے قہرتان،میاجد،مندر،گرجا گھرول وغیرہ کو کو قتیم کا نقصان نہ پہنچایا جائے اوران کی حدود میں کوڑا کرکٹ ڈالنے یا فالتو پانی چھوڑنے سے گریز کیا والم مريد برأن كحدائى في دوران كسى في أثار قد يمد ملنه كى صورت ميس متعلقه مقامى محكم برجوع كيا جائ اوركهدائى كاكام بندكر تميراتي كام روك دياجائے۔ سرگرمیاں 2-کیدائی کی جگہ اور اس سے متعلقہ کام اور نالوں کی صفائی اور اس سے حاصل شدہ بہل وغیرہ مسائل /// فَدانُل حاص شدہ میں رکنگر کے ڈچر (Debris) سے رہائی وں کی آمدور فت اور ٹر ایک میں رکاوٹ مقانى ربائشول كيليني ناكواري كاباعث م مجمروں اوردیگریماری چسلانے والے جراثیم کی افزائش کا ذریعہ لمدانی کی جگه پرکرنے اور حادثات کے خطرات الرمنت ايند سوشل سيف گار دز تيم یی ایم ڈی ایف سی

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<u>4۔ تعبیر اتی کاموں کی وجہ سے راستوں میں عارضی رکاوٹ اور زمین کا عارضی حصول</u> دوزمرة معمولات اوركامون بيس ركاوث رہائی خواتین کیلئے آئے جانے میں رکاوٹ دکانداروں کے دکانوں کے آگے رکا وٹیس اور گا ہوں کیلئے مشکلات ستقل وعارضی سٹالز لگا کر بیچنے والے چھوٹے بڑے مستقل دکا نداروں کا گا یک کم ہوجانے کی وجہ ہے مالی نقصان مفاظتي اقدامات یقیراتی علاقے میں اردگردموجودتمام چھوٹی بڑی دکانوں ٹھیلوں ، عارضی خوانچے فروشوں اور گھروں کامکمل سروے (تعدادادر مالی حیثیت دغیرہ) او ان برمکنہ ہاجی اور ماحولیاتی اثرات کا جائزہ لے کرایک تفصیلی رپورٹ اور متعلقہ پلان میڈ پل کمیٹی رکار پوریشن کے دفتر میں موجود ہونی چاہئے جو کہ فوکل پرسنز، متعلقہ علاقائی آفس میں موجود ڈپٹی پروگرام آفیسر (ESSs) کے ساتھ قعیراتی کاموں کی مالیت کا ندازہ لگائے دقت تیاراً جائیگی۔اس رپورٹ اور پلان میں موجود ساجی اور ماحولیاتی مسائل کے حل کیلیے مختص رقم اوران کاضجیح طریقے سے استعال تھیکیدار کے کنٹریک -bra رہائشیوں کیلیئے آنے جانے اور دکانوں رگھروں تک رسائی کے لیے متبادل راہتے مہیا کرناٹھیکیدار کی ذمہ داری ہے۔ دکانوں ترکھڑ وں رٹھیلوں وغیرہ کے باہر کسی بھی قشم کے نقصان یا تو ڑپھوڑ کی صورت میں ٹھکید ارطے شدہ ضوابط کے مطابق اس کی قیمت متاثرہ لوگوں لیبر رمز دورکوتر ہیت دی جائے کہ وہ اردگر در ہائشی عورتوں اور پچوں کے آنے جانے میں کوئی رکاوٹ نہ بنیں اور رہائشوں کے ساتھ بلاغنرورت کو لتعمیراتی کیمپ لگانے بتعمیراتی کام کرنے یا مشینری اور لتعمیراتی سامان رکھنے کے لیئے عارضی طور پر حاصل کی گٹی زمین کا کرامیہ ما لک مکان کودنت پرادا کی جائے گا۔اور تحریری معاہد ۔ کی صور یہ شن تھکے یوار تمام تو اعدوضوا اط کا پابند ہوگا۔ لتحميراتی كاموں ركيم وغيرہ لگانے كے ليتے حارض زمين حاصل كرنے كے ليتے مقامی رہائشیوں سے مشاورت اور دنوں كے حساب سے كرايدادر اس کاممل طریقہ کا روضع کر کے باقاعدہ کھا جائے گا۔اورخلاف ورزی کی صورت میں شیکیدارذ مہدار ہوگا۔ پی ایم ڈی ایف سی

کر میاں ۵.تعمیراتی کام اور هیوی مشیری کا استعمال مسائل 声 مانى كى آلودكى بداني آلودكي م دیگر ماحالاتی سائل حفاظتى اقدامات 🔹 نقیبراتی علاقے میں موجود ہپتالوں، سکولوں رکا کجوں وغیرہ اور ہائٹی گھر دں ردکا نوں کی تمام تفصیلات کی رپورٹ متعلقہ میونہل کمیٹی کے دفتہ میں موجود ہونی جاہے جو کہ تھیکیدار کے کنٹریک کا حصہ ہوگی۔ <mark>اور ٹھیکیداران</mark> تفصیلات کے مظابق ایسا پلان تر تیب دے گاجس سے اردگرد ہمارتی ر ہائشیوں اور دکا نداروں کو کم سے کم پریشانی کا سامنا کرنا پڑے مثلا زیادہ شور پیدا کرنے والے کام دن کے اس جھے میں کئے جائیں جب میں میں اور سکولوں رکالجوں وغیرہ کے مصروف اوقات کارنہ ہوں اورا یسے کام ^جن کی دجہ ہے راستوں کی عارضی بندش ضروری ہوں وہ راتے کی کیتے جایئن جب رہائشیوں کی آمدور فت نہ ہو۔ 🔷 تقمیراتی کاموں کے دوران پیداشدہ فاضل یانی یا پورٹیبل ٹو انگٹس کا پانی رفضلہ دغیرہ کامحفوظ اور مناسب طریقے سے ٹھکانے لگانے کا بندویت کا جائے اور فاضل پانی کو پینے کےصاف پانی کے ساتھ شامل ہونے سے بیجانے کا ہر ممکن قدم اٹھایا جائے۔ والرسیلائی کی سکیموں یا ایسی تمام کام جن کی وجہ سے رہائشیوں کو یانی یا سیور بچ وغیرہ میں عارضی بندش کا سامنا کرنا پڑ سکتا ہو۔، ایسے تمام کاموں کے آغاز ہے پہلے رہائشوں کو پیشگی اطلاع دی جائے اور متبادل انتظامات کا خاطرخواہ انتظام کیا جائے۔ تقمیراتی کاموں کی وجہ سے درختوں کی کٹائی سے ہرحال میں گریز کیا جائے اور ناگز برصور<mark>ت ح</mark>ال میں ایک درخت کی کٹائی <mark>کے متباد</mark>ل کے طور ر 4 چار درخت لگانا ضروری ہیں۔ عتمیراتی جگہ پر پیداہونے والے کوڑا کرکٹ کوٹھکانے لگانے کیلیجے ڈسٹ بن لگائے جائیں اوران کوروزانہ کی بنیاد پرمتعلقہ میونیل کمیٹی کی طرف ے مقرر کردہ مقام برٹھکانے لگاما جائے۔ کوڑا کرکٹ اور فاضل یانی اردگر دموجو دفسلوں اور ندی نالوں میں چھیکنے ہے گریز کر س۔ گردد غبارادر ہوائی آلودگی کی صورت میں یانی کا با قاعدہ چھڑ کاؤ کر س۔ تعمیراتی کام کی مدت اور نوعیت کے مطابق کام کے آغاز سے پہلے، کام کے دوران اور کام کے بعد مح کی آلودگی، جوائی آلودگی اور آبی آلودگی کے نمونہ جات حاصل کر کے ان کی جانچ پڑتال کرانا تھلیدار کی ذمہ داری ہے۔ اس سلسلے میں ریجن آش میں موجود ڈپٹی پروگرام آفسر (ESSs) سے مزید رہنمائی حاصل کریں۔ التميراتى كام يمكمل جوجانے كے بعد علاق كى صفائى سھرائى اور ماحولياتى خوبصورتى كاخاص خيال ركھيں اور يہلے سے بہتر حالت ميں چھوڑيں۔ * برجاكورت آف بالتان كرمواليس فبر 25 بدهايق 2009 حالة فبر "محقلة ف فريزة الميتان كالموالي وروان جراتي مادوران جراتي المورد الحيران عجور المرور التي المالي المدعن المالي المروح المحالي المروح المحالي المروح المحالي المروح المحالية ال انوائر نمنت اینڈ سوشل سیف گارڈز ٹیم 10 پی ایم ڈی ایف سی

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Annexure iii: COVID-19 Pandemic and Health Safety Measures

Given the unprecedented nature of the COVID-19 pandemic, contractors are bound to take all necessary precautions to maintain the health and safety related measures at site and to ensure suitable arrangements regarding hygiene requirements for the prevention of pandemic. Following are the measures that should be implemented at the construction site to avoid the spread of Covid-19:

Activities	Adaptive Measures		
Pre- Execution Phase			
A. Profile preparation B. Initial Screening	 Detail profile of project workforce Enlist the names, addresses and contact # Breakdown of the workforce (workers from local communities and those who have on site accommodation) Assigning the task against each person Schedule the key activities and their duration at site All enlisted workforce should go through initial screening process Ensuring the availability of Thermogun at site Record keeping against initial screening 		
	 Identifying all workers who are initially at more risk of contracting Covid-19 		
	During Execution Phase		
A. Preliminary	Regular Screening:		
Screening	 Regular screening by using Thermogun on daily basis before starting civil work at site Checking and recording temperatures of workers and other 		
B. Special	 people entering the site or requiring self-reporting prior to or on entering the site. If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on designated site. Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and to quarantine themselves for 14 days, even if they have no symptoms. Sequential Screening: Concerned DHQ medical staff is requested for screening at regular intervals. List should also be shared with DHQ for avoiding future inconvenience or hire health safety officer on weekly basis. 		
B. Special Arrangements regarding PPEs	 Ensuring availability of handwashing facilities (sanitizers/soaps) at site Presence of closed waste bins at key places throughout site, including at entrances/exits to work areas (toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces). Special arrangements regarding PPEs and sanitation at site Record keeping of stock availability on daily basis 		
C. Restricted Movement/	• Encourage employees to wash their hands at least for 20 seconds with soap and stay at least one meter away from people who are coughing or sneezing		

Activities	Adaptive Measures
Demobilization of staff	 Breakdown of workers who reside at home (i.e. workers from the communities), workers who lodge within the local communities and workers in on-site accommodation. Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided. Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.
D. Training sessions	 All workers should be provided separate accommodation. Health and safety training for Contractor's Personnel (which include project workers and all personnel that the Contractor uses on site, including staff and other employees of the Contractor and Subcontractors and any other personnel assisting the Contractor in carrying out project activities. Sessions related to safety procedures, use of construction PPEs, occupational health and safety issues, and code of conduct specially privacy issues including social distancing. Arranging daily briefings with workforce, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell. Placing posters and sign boards around the site in local languages. Appointing one person on daily basis among the workforce who will serve as trainer for conducting awareness session and encouraging the rest to take preventive measures.
E. Operationalization of Grievance Redress Mechanism	
F. Role of PMU	 PMU is required to arrange regular meetings with Contractors and workforce to monitor all procedural implementation of COVID-19 prevention related mechanism. Arrange meeting with concerned DHQs for immediate support and guidance in case of emergency. During inspection visit by PMU Staff, if a worker is found to has symptoms of COVID-19, the worker should be removed immediately from work activities and isolated on designated site. Post Execution Phase
A. Post Screening	• Screening should be done at the end of the day on daily basis, if a worker is found to have any symptoms of COVOD-19, he
B. Cleaning and waste disposal	 should be immediately reported to concerned health department. All waste (PPEs and sanitation related) shall be disposed properly at designated sites.

Sr. No.	Name	Designation	Department		
	Technical Discussion				
1.	Zain Ali	Municipal Officer (I&S)	MC Khanewal		
2.	Ijaz Hussain	Municipal Officer (Planning)	MC Khanewal		
3.	Hamaad Amin	Regional Programme Coordinator	MC Khanewal		
4.	Umar Farooq	Deputy Programme Manager (Environment)	MC Khanewal		
5.	Amir Choudhry	Deputy Programme Manager (ID)	MC Khanewal		
	Communities Consultation				
Jaswan	t Nagar to Chack 88	/10R Road			
6.	Malik Khushi Muhammad		03006886966		
7.	Ch. Amar Waraich		03217167151		
8.	Muhammad Ibraheim		03062981921		
9.	Malik Muhammad Irfan		03067832914		
10.	Malik Mazaffar		03064988828		
11.	Malik Abdul Hameed		03007359172		
12.	Islam		03466409230		
13.	Rana Shabbir		03027816928		
14.	Nazir Ahmad		03076535292		

Annexure iv: List of Persons Consulted

Sr. No.	Name	Designation	Department
15.	Abdul Salam		-
16.	Muhammad Nisar		03176660843
17.	Saeed		03006880487
18.	Yaseen		-
19.	Rashid Ali		03124275495
20.	Faizan A-li		-
21.	Abdul Rehman		03027847207
22.	Rashid		03039709423
23.	Bhai Mithu		-
24.	Rao Umar		-
25.	Mahr Abbas		-
26.	Rao Shahid		-
27.	Muhammad		0302-3577813
	Saleem		
28.	Muhammad Ishaq		0305-8400508
29.	Arif Mehmood		0302-2074677
30.	Malik Nadeem		0300-6665616
31.	Ghulam Farid		0300-6643562
32.	Muhammad Sajid		0323-8700889
33.	Muhammad Ali		0302-9607960
34.	Rao abdul Rehman		0303-4772383
35.	Rao Muhammad Shahid		0303-7210427
36.	Munir ahmed		0308-1603734

Sr. No.	Name	Designation	Department
37.	Din Muhammad		0312-4246080
38.	Muhammad Arslan		
Old Kha	arkhana Road		
39.	Muhammad Khalid		0307-5600075
40.	Dilber Iqbal		0321-7309599
41.	Ibrar Ahmed		0305-2097760
42.	Muhmmad Waheed		0322-6533880
43.	Ali Shan		0300-5091102
44.	Muhammad Arshad		0304-7692157
45.	Muhmmad Iqbal		0305-6088193
46.	Muhammad Irfan		0300-3254243
47.	Bill Ahmed		-
48.	Muhammad Ashrf		0306-1365032
49.	Muhammad Aslam		0345-7392798
50.	Asama Rao		0300-2771426
51.	Shahbaz		-
52.	Qamar Malik		0324-4489323
53.	Saeed-ur- Rehman		0333-6778913
54.	Muhammad Riaz		0302-2026703
55.	Munir Ahmed		-
56.	Zahid rouf		-

Sr. No.	Name	Designation	Department
57.	Rao Yasir		0301-6859220
58.	Haji Mooj Din		0300-4974051
59.	Muhammad Khalid		0307-5600075
60.	Dilber Iqbal		0321-7309599
61.	Ibrar Ahmed		0305-2097760

Objective	Workplace Hazards	Suggested PPE	
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.	
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.	
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).	
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection against moving & falling objects, liquids and chemicals.	
Hand protection		Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.	
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	es, Facemasks with appropriate filters dust removal and air purificat (chemicals, mists, vapors and gase Single or multi-gas personal monitors available.	
Oxygen deficiency		Portable or supplied air (fixed lines).	
		On-site rescue equipment.	
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and laceration.	Insulating clothing, body suits, aprons etc. of appropriate materials.	

⁹ Source: IFC Environmental, Health, and Safety (EHS) Guidelines

Annexure vi Chance Find Procedures

Chance finds procedures which will be used during this Project are as follows:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the Ministry in charge of Department of Archaeology take over;
- Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Ministry immediately (within 24 hours or less);
- Responsible local authorities and the Ministry in charge of Department of Archaeology would oversee protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists of the Department of Archaeology and Museums (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
- Decisions on how to handle the finding shall be taken by the responsible authorities and the Ministry in charge of Department of Archaeology. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage;
- Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Ministry in charge of Department of Archaeology; and
- Construction work could resume only after permission is given from the responsible local authorities and the Ministry in charge of Department of Archaeology concerning safeguard of the heritage.

These procedures will be referred to as standard provisions in construction contracts, when applicable. During project supervision, the Site Engineer will monitor the above regulations relating to the treatment of any chance find encountered are observed.