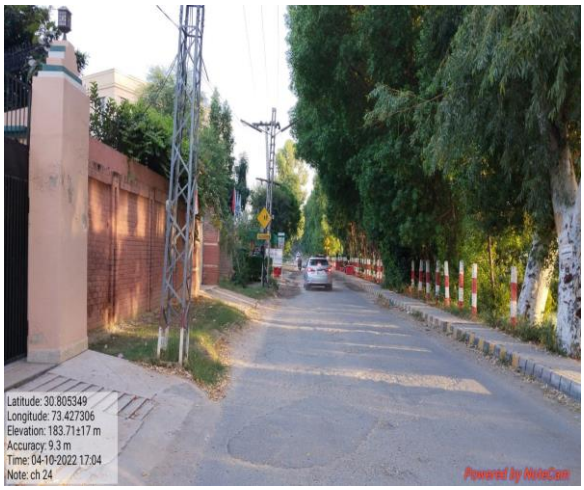
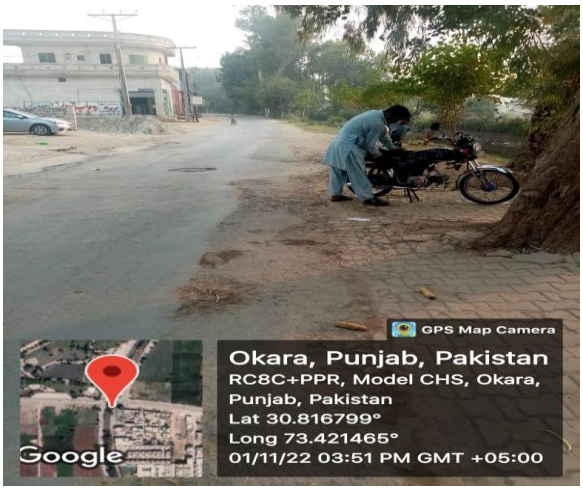
Punjab Municipal Development Fund Company (PMDFC)





Initial Environmental Examination (IEE) Report
Improvement, Widening and Raising of Road from Tank Chowk to Akbar Chowk (Canal Road)

MC Okara

January 2023

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ACRONYMS

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

Executive Summary

This Initial Environmental Examination (IEE) has been prepared for Improvement, Widening and Raising of Road from Tank Chowk to Akbar Chowk along Canal Road, Okara

which is being funded by the World Bank through the Punjab Municipal Development Fund Company and to be implemented by the Municipal Committee Okara and supervised by consultants appointed by PMDFC.

Project Background

The development objective of the Punjab Cities Program is to strengthen the performance of participating urban local governments in urban management and service delivery.

The program focuses on urban management and improvement of municipal services infrastructure for the following sectors:

- Parks
- Water Supply and Filtration Plants
- Solid Waste Management
- Sewerage and Waste Water Treatment Plants
- Roads and Street Lights

The Canal Road has a stretch of 1.8 Km from Tank chowk to Akbar chowk in Okara city with existing width of 14.5 to 15.5 feet and proposed width due to widening and raising is 24 feet with tough paver proposed along the canal side of the road. In the north it connects with N-5 Lahore-Multan Road and in south this road joins Faisalabad Road. There is largely agriculture area in the west and densely populated area lies towards east of canal road. The current development aims to improve the vehicles/ pedestrian traffic and ease out the public at large in the area.

Screening:

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. The Policy Core Principles of World Bank states that environmental assessment requirements for projects depend on the significance of environmental impact. Each proposed project is scrutinized

as to its type; location; the sensitivity, scale, nature, and magnitude of its potential environmental impacts; and availability of cost-effective mitigation measures. According to the **Delegations of Power for Environmental Approvals Rules 2017, Clause h "Construction of roads falling within jurisdiction of a district, excepting highways, expressways, and motorway" of schedule I;** proposed project requires to develop an IEE and its subsequent approval/NOC from the competent forum.

The proposed activities may involve scarifying and dismantling of road, preparation of sub-grade, laying of sub-base, laying of base course and asphalt wearing course. 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 Physical Cultural Resources (PCRs) as project interventions are outside of the PCR boundaries. There are 05 schools along the entire stretch of road, where issues related to mobility may emerged due to project interventions at the school running hours. Ramps of three schools will be partially dismantled during widening of canal road and one electric pole needs to be relocated.

Analysis of potential environmental impacts was undertaken based on available information, public consultation and site assessment. Significant and/or irreversible impacts are unlikely, that qualifies the project as E-1 and S-2 under World Bank's Project Categorization.

Environment & Social Focal Persons (ESFPs): MOI of Municipal Committee, Okara has been nominated as focal person for environment and he/she is responsible for implementation & monitoring of environmental aspects of instruments related to the environment. MOP of Municipal Committee, Okara has been nominated focal person for social aspects and he/she is responsible for implementation & monitoring of social aspects of social instruments. ESFPs and DPOs-ESM (deputed by PMDFC in regional offices) will conduct regular visit to the construction sites. Overall Environment and Social Management and Monitoring Plan will be supervised by the E & S supervision consultants.

Mitigation Measures:

- Dismantling material will be disposed of simultaneously to designated site approved by the construction supervision engineer

- It will be ensured to execute the work in portions to minimize the temporary disturbance in accessibility of the people
- Public safety will be ensured
- Workforce will be provided with the PPEs and follow the PMDFC SOPs of Environment, Health and Safety of Labor/Workers (Annex-vi)
- COVID SOPs will be followed (Annex-iv)
- Contractor will use efficient machinery and equipment to reduce noise and air pollution impacts
- Contractor will ensure public convenience during the course of sub-project and will possibly avoid the hinderances in mobility of the local residents during construction works.

Contractor will be instructed to implement the MC approved traffic management plan during construction and ensure safety of children by applying SOPs related to construction safety while executing activities near schools. Further it will be required to monitor drinking water quality, ambient air quality of the project area and noise levels of machinery and equipment during construction to keep them within safe limits. There are community safety and occupational safety prospects envisaged. Existing road is owned by MC Okara and land acquisition is not required in the sub-project except dismantling of 03 structures and for which ARAP has been developed to pay the compensation cost to the affected persons.

ENVIRONMENT AND SOCIAL MANAGEMENT & MONITORING PLANS:

Environmental and Social Management & Monitoring Plan of this IEE report is developed to take mitigation measures, wherever these might be considered necessary in order of appropriateness of elimination, reduction and compensation as the goals. The development of the ESMMP is to make some person responsible for implementing the mitigation measures as identified so that smooth implementation of the mitigation measures can be assured. Monitoring plans have also been included to ensure the compliance of the ESMMP by contractors and other responsible authorities. These plans have been included in Chapter-6 of the report.

As presented in the ESMMP, all potential environmental concerns can be properly mitigated. No significant associated or cumulative impacts are identified. Hence, a detailed environmental impact assessment is not warranted.

CONCLUSION

The Initial Environmental Examination contains description of the project, description of the environmental baselines, potential environmental and social impacts and suggested mitigation measures. An implementation mechanism for mitigation measures in the form of an Environmental and Social Management and Monitoring Plan is included in the study. While the objectives of this study have been to describe the project and its environmental impact, it also identifies adverse environmental factors associated with the project. Appropriate mitigation measures as explained in the environmental study should reduce, if not eliminate, these impacts so that these are within acceptable limits. It is further concluded that all potential environmental concerns associated with the project have been adequately addressed, and no further study is required in this context. The objective of preparation of an environmental study is to identify how the environment is impacted and to suggest mitigating measures to reduce if not totally eliminate adverse effects of a project. It is accordingly recommended that Environmental Approval for the project should be issued by the relevant forum at district level, subject to all fees are paid by proponent of the project.

Section-1 INTRODUCTION

1.1. General

Okara is 127 Km south west of Lahore. The city coordinates are 30-8138' North latitude, and 73-4534' East longitude. There are a lot of areas of Okara District where Roads have been constructed in past years. Due to various activities for installation of utilities in these areas the condition of the areas highlighted by District Council, Okara has been deteriorated and needed immediate attention to improve the vehicles/ Pedestrian traffic to ease out the public at large in the area. The same shall also enhance the quality of life and improve area environment also. Presently the roads taken in the project are in miserable condition and show problems regarding surface riding quality, surface drainage and aesthetics.

Screening:

As per the Environmental and Social Framework (ESMF) under PCP, the sub-projects are categorised in E1, E2 and E3 category and S1, S2 and S3 category based on the magnitude and severity of the environmental and social impacts of the sub-project. Environmental & Social Screening checklist and Involuntary Resettlement Checklists is attached as Annexure i.

As per ESMF, Roads sub-projects are categorized as E-1 for having significant and as per national regulatory framework, those district roads which required widening or dualization in scope of work with be screed out under Delegations of power for Environmental Approvals) Rules 2017.

According to the Delegations of power for Environmental Approvals) Rules 2017, Clause h construction of roads falling within jurisdiction of a district, excepting highways, expressways, and motorway of schedule I.

1.2. Purpose of Report

The Initial Environmental Examination (IEE) report has been prepared in compliance with the range of laws, regulations, policies and procedures enacted by Government of Punjab (GOP) in relation to proposed widening, raising and improvement of canal road covering 1.8 Km. This IEE report has been prepared to comply with the requirements of provincial EPA.

The conduct of environmental assessment is an important component of road projects in order to lessen its negative impacts on land, air, water and most importantly to the people. A detailed screening and analysis of all environmental parameters, field investigations, stakeholder consultations and review of reports on similar project in Punjab were undertaken. Presented in this IEE Report are the general environmental profile of the project area, overview of the potential environmental impacts and its significance or magnitude. The IEE was prepared in coordination with the Municipal Administration, Okara, PMDFC ESM team, local EPA office and local communities.

The IEE considered environmental impacts on the physical, ecological, social and cultural resources within the Project influence area during the construction and operation phases of the Project.

1.3. Identification of the Project and Project Proponent

Project

The Initial Environmental Examination (IEE) report covers the project named as “Improvement, Widening and Raising of Road from Tank Chowk to Akbar Chowk (Canal Road)”

Proponent

Proponent of this project is Chief Officer, MC Okara

1.4. Details of the Consultants

PMDFC contracted M. M. Pakistan (MMP) as consultants for detail design including IEE report of “Improvement, Widening and Raising of Road from Tank Chowk to Akbar Chowk along Canal Road” in Okara city.

1.5. Nature, Size and Location of the Project

The Canal Road has a stretch of 1.8 Km from Tank chowk to Akbar chowk in Okara city with existing width of 14.5 to 15.5 feet and proposed width due to widening and raising is 24 feet. Location of Canal Road is illustrated in Figure 1.

Figure-1 Location Map of Road from Tank Chowk to Akbar Chowk

1.6. Study Approach & Methodology

1.6.1. Study Approach

The study has been conducted in accordance with National Regulatory framework and Environmental & Social Management Framework (ESMF) of Punjab Cities Program (World Bank funded program). The study is based on both primary and secondary data and information. Discussions were held with stakeholders including government officials and community representatives. The main purpose of this approach was to obtain a fair impression on the people's perceptions of the project and its environmental impacts.

1.6.2. Methodology

The following methodology was adopted for carrying out the IEE study:

Orientation

Meetings and discussions were held among the executing & Implementing Agency. This activity was aimed at achieving a common ground of understanding various issues related to the project.

Planning for Data Collection

Subsequent to the concept clarification and understanding obtained in the preceding step, a detailed data acquisition plan was developed for the internal use of the consultant. The plan included identification of specific data requirements and their sources, determined time schedules and responsibilities for their collection, and indicated the logistics and other supporting needs for the execution of the data acquisition plan.

Data Collection

In this step, primary and secondary data were collected through field observations, environmental monitoring in the field, concerned departments and published materials to establish baseline profile for physical, biological and socio-economic environmental conditions. The following activities were undertaken to gather the required data:

- Site Reconnaissance
- Analysis of Maps and Plans
- Literature Review
- Desk Research
- Public Consultations
- Field Observations & Studies
- Laboratory Analyses

Physical Environment

Information was gathered on the existing physical environment, particularly as related to geology, topography, soils, hydrology and drainage, water quality, air quality and noise

Geology, Topography, Soils

A review was conducted of relevant literature on the geology, topography and soils in the project area.

Air Quality

Ambient air quality measurements are essential to provide a description of the existing conditions, to provide a baseline against which changes can be measured and to assist in the determination of potential impacts of the proposed construction on air quality conditions. Ambient air quality was monitored for Carbon Monoxide (CO), Sulfur Dioxide (SO2), Nitrogen Dioxide (NO2), Particulate Matter (PM10) and other parameters mentioned in PEQS.

Noise

Noise level readings were taken for 24 hours and hourly average data was reported.

Water Quality

Water quality monitoring was conducted to determine the water quality situation prior to construction. It has been observed that the surface water and groundwater are the most important environmental variables to be affected in the project. The extent of surface water and groundwater contamination in the project area was assessed based on the test results of chemical and microbiological parameters for surface and groundwater. Dissolved oxygen (DO), pH and conductivity measurements were taken in situ at all sampling stations. Laboratory analyses were performed according to SOPs based on recognized methods of ASTM, USEPA, or APHA.

Biological Environment

The status of the flora and fauna of the study area were determined by ecological survey, a review of literature relevant to the area, and an assessment of terrestrial environments

Flora

The vegetative communities were identified and classified into community types. Identification was carried out of dominant tree species, assessment of stage of growth (mature or sapling) and assessment of canopy cover.

Fauna

Information on fauna was gathered from existing literature on reported species as well as observations in the field.

Socio-Cultural Environment

The consultants utilized a combination of desk research, field investigations, census data, structured interviews, maps, and reports to generate the data required for description of the existing social environment and assessment of the potential impacts of the construction of the proposed project.

Identification and Evaluation of Environmental Impacts

The impacts of the project on the physical, biological and socio-economic environment at the design, construction and operational phases were identified and evaluated based on their type and magnitude.

Mitigation Measures and Implementation Arrangements

Adequate mitigation measures and implementation mechanisms were proposed so that the proponent could incorporate them beforehand in the design phase.

1.7. Report Organization

The Initial environmental examination (IEE) report has been organized in 8 chapters

Chapter 1: Introduction

Describes the introduction and purpose of this report

Chapter 2: Policy, Legal and Administrative Framework

Description of the national & provincial legislation, regulations and policies those are relevant to project activities and initial environmental examination process.

Chapter 3: Description of Project

This chapter includes the project description, raw materials details and utility requirements.

Chapter 4: Description of Environment

This chapter describes the present environmental settings and socioeconomic value of the project area and surroundings.

Chapter 5: Potential Environmental Impacts and Mitigation Measures

Deals with the identification of potential environmental and social impacts of project for preparation of environmental management and monitoring plan.

Chapter 6: Environmental Management and Monitoring Plan

Deals with the implementation of mitigation measures and monitoring of environmental parameters against likely environmental impacts.

Chapter 7: Stakeholder Consultation & Capacity Building

Deals with the consultations held during surveys.

Chapter 8: Grievance Redress Mechanism

GRM adopted throughout the courses of project is given in this chapter

Chapter 9: Conclusion

The conclusion of Initial Environmental Examination report.

Section-2 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

This section provides an overview of the policy framework and national legislation that applies to the proposed project. The project is expected to comply with all national/provincial legislation regulations, EPA guidelines, World Bank Operational Policies and guidelines which are relevant and applicable to the sub-project.

2.1. National Policy and Legal Framework

The Climate Change Division is the responsible authority for environmental protection policy making in Pakistan.

The Pakistan National Conservation Strategy (NCS) that was approved by the federal cabinet in March 1992 is the principal policy document on environmental issues in the country (EUAD/IUCN, 1992). The NCS outlines the country's primary approach towards encouraging sustainable development, conserving natural resources, and improving efficiency in the use and management of resources. The NCS has 68 specific programs in 14 core areas in which policy intervention is considered crucial for the preservation of Pakistan's natural and physical environment. The core areas that are relevant in the context of the proposed project are pollution prevention and abatement, restoration of rangelands, increasing energy efficiency, conserving biodiversity, supporting forestry and plantations, and the preservation of cultural heritage.

Prior to the adoption of the 18th Constitutional Amendment, the Pakistan Environmental Protection Act (PEPA) 1997 was the governing law for environmental conservation in the country. Under PEPA 1997 the Pakistan Environmental Protection Council (PEPC) and Pak EPA were primarily responsible for administering PEPA 1997. Post the adoption of the 18th Constitutional Amendment in 2011, the subject of environment was devolved and the provinces have been empowered for environmental protection and conservation.

2.2. Regulations for Environmental Assessment, Punjab EPA

Under Section 12 (and subsequent amendment) of the PEPA (1997), a project falling under any category specified in Schedule I of the IEE/EIA Regulations 2022 requires the proponent of the project to file an IEE with the concerned provincial EPA. Projects falling under any category specified in Schedule II require the proponent to file an EIA with the provincial agency, which is responsible for its review and accordance of approval or request any additional information deemed necessary.

2.3. Regulatory Clearances, Punjab EPA

In accordance with federal regulatory requirements, an IEE/EIA satisfying the requirements of the Punjab Environmental Protection (Amendment 2012) Act will be marked cleared by Punjab-EPA and No Objection Certificate (NOC) will be issued for it.

2.4. Guidelines for Environmental Assessment, Pakistan EPA

The Pak-EPA has published a set of environmental guidelines for conducting environmental assessments and the environmental management of different types of development projects. The guidelines that are relevant to the proposed project are listed below:

• Guidelines for the Preparation and Review of Environmental Reports, Pakistan, EPA 1997;

• Guidelines for Public Consultations; Pakistan EPA May 1997;

2.5. Punjab Environmental Quality Standards (PEQS), 2016

The Punjab Environmental Quality Standards (PEQS), 2016 specify the following standards:

- Water Quality Analysis Maximum allowable concentration of pollutants (32 parameters) in municipal and liquid industrial effluents discharged to inland waters, sewage treatment facilities, and the sea (three separate sets of numbers);
- Air Quality Analysis Maximum allowable concentration of pollutants in gaseous emissions from industrial sources;
- Noise Quality Analysis

These standards apply to the gaseous emissions and liquid effluents discharged by batching plants, campsites and construction machinery. The standards for vehicles will apply during the construction as well as operation phase of the project.

2.6. Other Social and Environment Related Legislations

Table 1: National and Provincial Legislative Framework

Sr. No.	Act	Description	Applicability to sub-project
1.	Punjab Environment Protection Act, 2012	The Act establishes the Environmental Protection Agency that deals with the preparation of national environmental policies, prepare & publish national environment report, ensure the enforcement of National Environmental Quality Standards, establishment of ambient air, water and land quality standards, measures to control environmental pollution.	• Section 11,12,13 and 14 of PEPA, 2012 will be applicable during construction and operation phase of this project.

		Additionally, under this Act, no proponent of a project shall commence construction or operation unless he has filed with the Provincial Agency an initial environmental examination or, where the project is likely to cause an adverse environmental effect, an Environmental Impact Assessment (EIA), and has obtained from the approval in respect thereof.	
2.	Punjab Environment Protection Review of IEE/EIA Regulations 2022	Provided that the proponent shall file an environmental impact assessment, if the project is likely to cause an adverse environmental impact	• Schedule I and II of these Regulations are not applicable on this project as this subproject comes under jurisdiction of district.
3.	Delegations of power for Environmental Approvals) Rules 2017	These rules set out: • Application of Approval • Preliminary Scrutiny • Review • Environmental Approval committee • Conditions of approval • Monitoring • Cancellation of approval	• The provision of this notification is applicable for environmental screening of the project, which implies that an Environmental study is required for the proposed project. This Subproject has been categorized under these rules.
4.	Notification No. SOG/EPD/5-86/2019 dated 28th January 2020 Delegation Powers and Functions to the Deputy Commissioners	• Rice mills, flour Mills, and some crushing units • Cottage industry units with product cost less than rupees 10 million unless otherwise specified by the environmental protection agency. • Commercial extraction of sand gravel, lime stone, clay, sulphur and any other mineral not included in schedule-|| of the Pakistan Environmental Protection Agency review of initial	Not applicable in this subproject

		environmental examination and environmental impact assessment regulations, 2000 with total cost less than rupees 100 million. • Restaurant and hotels below 3-star category. • Marriage halls and event centers • Bakeries, sweet manufacturing units and other similar concerns • Bus and wagons stands of category ‘c ' with area upto 8 Kanals • Cement block manufacturing factories • Land sub- division.	
5.	Pakistan Penal Code, 1860	The Code deals with the offences where public or private property or human lives are affected due to intentional or accidental misconduct of an individual or organization. The Code also addresses control of noise, noxious emissions and disposal of effluents.	The provisions of the Penal Code, 1860 are applicable to the project in terms of penalties for effecting human lives and public property. It also addresses the control of noise, air emissions and effluent disposal.
6.	The Bonded Labor System (Abolition) Act 1992	According to this act, forced labor is any type of work or kind of service in which someone engages involuntarily and under implied coercion a manifest threat of a party or oppression measures. The bonded labor can exist in following forms under different situations: • Bonded labor in exchange of advance/an amount of money given before services are rendered, received by a person or his family.	This act is applicable to protect the rights of labor involved in the sub project implementation. In this regard, PMDFC has also developed SOPs which will be applicable on this sub-project by making them the part of bid documents of the contractor

		• Bonded labor as a consequence of some social or customary obligations. • Bonded labor in exchange of an economic benefit/consideration received by a person or his family, • Bonded labor of a guarantor in exchange for debtor who was unable to pay off his debt. Bonded labor is prevalent in agriculture sector, brick kilns, domestic work and begging.	
7.	The Land Acquisition Act, 1894	The Land Acquisition Act, 1894, is a "law for the acquisition of land needed for public purposes and for companies and for determining the amount of compensation to be paid on account of such acquisition". The exercise of the power of acquisition has been limited to public purposes. The principles laid down for the determination of compensation, as clarified by judicial pronouncements made from time to time, reflect the anxiety of the law-giver to compensate those who have been deprived of property, adequately. The land needed for the construction of development projects will be acquired under normal conditions based on prevailing market prices or negotiated prices between client and the owners of land. Section 17(4) of the LAA will not be used in the absence of an emergency. Instead, the land will be purchased under willing-seller willing-buyer deal at agreed upon market rates and	This act will not trigger as no land acquisition is required in this subproject.

		the seller will have the option not to sell the land, in case an acceptable deal for both the parties is not reached.	
8.	The Punjab Land Acquisition Rules, 1983,	It describes the land acquisition procedure for public purposes or for a company.	This act will not trigger as no land acquisition is required.
9.	Pakistan Antiquities Act 1975 and Punjab Antiquities Amendment Act 2012	The Punjab Antiquities Amendment Act, 2012 is adopted from the Pakistan Antiquities Act of 1975 with a few minor changes. The Antiquities Act, 1975 (amended in 1990) states the following: • "Ancient" is any object that is at least 75 years old; • All accidental discoveries of artefacts must be reported to the Federal Department of Archaeology; • The Government is the owner of all buried antiquities discovered on any site, whether protected or otherwise; • All new construction within a distance of 200 feet from protected antiquities is forbidden; • No changes or repairs can be made to a protected monument, even if it is owned privately, without approval of the responsible authorities; and The cultural heritage laws of Pakistan are uniformly applicable to all categories of sites regardless of their state of preservation and classification	The law will be applicable to the project mainly due to its two provisions: • According to the law, any construction activity within 61 meter or 200 ft. of protected antiquities, are prohibited. The provisions of this act would also be applicable, if any accidental archaeological discoveries may occur during the excavation works for the construction of proposed sub-Project.

		as monuments of national or world heritage.	
10.	Punjab Restriction of Employment of Children Act, 2016	According to the sub-section 11(a) of this Act, an occupier who employs or permits a child (person under the age of 15 years) to work in an establishment shall be liable to punishment with imprisonment for a term which may extend to six months, but which shall not be less than seven days, and a mandatory fine between 10,000 and 50,000 rupees.	The relevance of this act to the project will be to prohibit child employment for construction of the proposed sub- project. PMDFC has formulated the SOPs to enact this Act and the same will be applicable on this subproject
11.	The Punjab Occupational Safety and Health Act, 2019	The Punjab Occupational Safety and Health Act, 2019 (IV of 2019) An Act to provide for occupational safety and health at workplace. It is necessary to make and consolidate the law for the occupational safety and health of the persons at workplace and to protect them against risks arising out of the occupational hazards; to promote safe and healthy working environment catering to the physiological and psychological needs of the employees at workplace and to provide for matters connected therewith or ancillary thereto.	It will be applicable on labor health and safety

2.7. International Laws/Treaties

2.7.1. The World Bank Operational Policies

The World Bank (WB) has approved a series of Operational Policies which define the conduct of WB operations. A summary of the status of those Operational Policies which relate to environmental and social impacts are provided in the following sections.

Table 2: Assessment of Applicable World Bank Operational Policies

Safeguard Policies	Triggered?	Explanation
Environmental Assessment OP/4.01	Yes	This sub-project has been categorized as 'Category B'. The sub-project activities may potentially cause minor to potential negative environmental and social impacts.
Physical Cultural Resource OP/4.11	No	The sub-project does not lie in any OR near any cultural and heritage resource therefore OP 4.11 will not be triggered
Involuntary Resettlement OP/4.12	No	OP 4.12 is not triggered as the sub-project does not require any land acquisition, therefore there be no involuntary resettlement, livelihood impacts. Consequently, there is no need of a Resettlement Action Plan. If this situation changes, the PMDFC will take immediate steps to prepare a RAP.

2.7.2. 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 Committee on disability-inclusive development
- WB Group Gender Strategy

Table 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.	IEE prepared under the light of this Principle in order to mitigate negative impacts envisaged in this Sub-project. ESMMP implementation and monitoring arrangements of IEE 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	ESMMP 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 ESMMP 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 improvement of road except the loss of structures in terms of dismantling of 03 ramps/footsteps.
Core Principle 6 Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.	No indigenous/Vulnerable groups exist along with ROW of the Sub-project. This principle doesn't trigger in this Sub-project.

Section-3 DESCRIPTION OF THE PROJECT

This section of the report provides an overview of the rational of the project, brief description of the project, type and category, its objectives location, land use, vegetation features, cost and magnitude of operation and various phases followed by Environmental Approvals or an approach adapted to conduct Initial Environmental Examination (IEE) of Canal Road at Okara city

3.1. Type and Category of the Project

As per the Environmental and Social Framework (ESMF) under PCP, the sub-projects are categorized in E1, E2 and E3 category and S1, S2 and S3 category based on the magnitude and severity of the environmental and social impacts of the sub-project. As per findings of the site visit conducted during 31-10-2022 to 01.11.2022, 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. There are some moderate environmental impacts (minor excavations and civil works) as per scope of work which will be minimized by providing mitigation measures mentioned in the proposed subproject. Hence project categorized as E-1 and S-2.

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. However, Sub-project may have temporary social impacts related to partial dismantling of ramps and community health and safety and accessibility. Therefore, sub-project is categorized as S-2, as there is no negative impact in terms of livelihood, and business loss is anticipated**.** Ramps of three schools i.e. Allied School, The Knowledge School and Dar-e-Arqam School will be partially affected due to widening of road and one electric pole will have to be relocated. As per the requirements of ESMF, ARAP has been developed for compensation of Affected Persons in terms of loss of structures.

According to the Delegations of Power for Environmental Approvals) Rules 2017, Clause h construction of roads falling within jurisdiction of a district, excepting highways, expressways, and motorway of schedule I, this subproject falls under E1 Category for which Initial Environmental Examination Report is prepared.

3.2. Objectives of the Project

This Sub-project has been formulated on the basis of demand from communities residing along with the alignment of the sub-Project. The road proposed for widening and improvement have been damaged because of poor maintenance. Due to various activities for installation of utilities in these areas the condition of the areas highlighted by district council, Okara is narrow and needed immediate attention to improve the vehicles/ pedestrian traffic to ease out the public at large in the area. The road is damaged at various places and needs widening and improvement. Therefore, MC Okara also decided to construct road under this sub-project.

The Main objective of project is to improve the quality of roads/ streets leading to enhance quality of life of residents of the area and safety for pedestrians and traffic.

The Project has the following objectives;

1. Improvement of service delivery level of the municipal services in the sector of communication.
2. Better travelling facilities for the commuters.
3. Reduction in road accidents.
4. Saving in travelling and repair cost of the vehicles.
5. Reduction in annual maintenance charges of roads and parks
6. Improvement in environments of the city making them livable.
7. Improvement in local and province economy.
8. Improvement in the economic growth potential of the city.

3.3. Project Alternatives

Sub-project involves Improvement, Widening and Raising of Road from Tank Chowk to Akbar Chowk (Canal Road), so there is no site alternative envisaged because no other site available to serve this purpose. The no-build alternative involves letting the current situation continue without addressing the on-going deterioration of the air quality due to increased CO_2 emissions, level of service and other environmental and social impacts occurring in the subproject 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 project shall increase in future due to inflation, social issues, environmental impacts etc.

3.4. Location and Site Layout of the Project

The project road covered by this IEE will start at the approach of Tank Chowk to Akbar Chowk in Okara city. The total length of the road is 1.88 Km with existing width of 14.5 to 15.5 feet, and proposed width of the road is 24 feet. The site layout is given below.

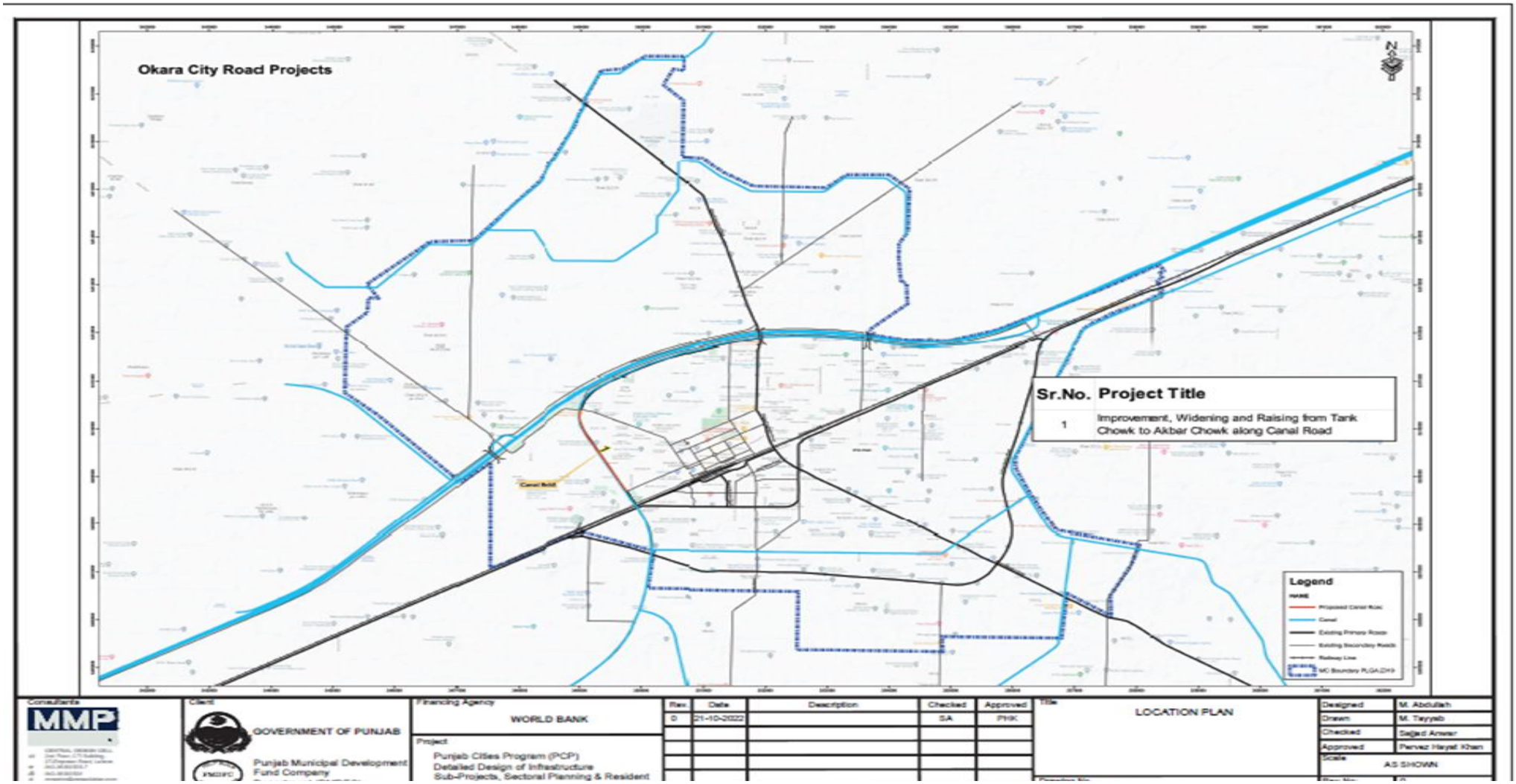


Figure 1: Site Layout Plan

3.5. Land Use

Land use includes residential, commercial, industrial, recreational, and Institutional activities, among others. A suitable arrangement of the physical elements of land use ensures that a town offers convenience, health and a better quality of life. The city comprises buildings, transportation channels, utilities, social services, and also vacant land, which may be used for agriculture purposes.

The land use of study area is residential cum commercial with canal and agriculture land on one side of the road and residences and some commercial buildings including schools are present on other side of the road.

3.6. Road Access

The project road connects with Rao Sikandar Road towards north which further leads to Faisalabad Road and Renala road. Towards East it joins M. A. Jinnah Road and Benazir Road and towards south it connects with N-5 Lahore Multan Road. There will not be any problem for access to the road during construction as the parallel roads available for commutation of vehicles and general public.

3.7. Vegetation Features of the Site[1]

53 trees of Jaman, Datepalm, Neem, Toot and Sufaida are located along the footpath and 35 trees of same species are located on the both sides of the road but outside of RoW. No tree cutting is involved during the execution of the project.

3.8. Cost and Magnitude of Operation

Total cost of the project is 98.33 Million and it will be executed in the duration of six months approximately. Implementation cost of ESMP is PKR 1,333,000/-(1.3M)

3.9. Description of Project

The Construction will involve following activities:

- Dismantling dry brick masonry / existing road edging
- Dismantling and removing road metalling
- Dismantling Tuff pavers
- Providing and laying base course of crushed stone aggregate
- Providing and laying bituminous priming coat
- Providing and laying bituminous tack coat
- Providing and laying plant premixed bituminous 2" thick carpet
- Painting Traffic Lane Marking of specified width
- Cold milling of asphalt layer/ concrete surface of specified thickness, loading of debris on to haul trucks via conveyor system and disposal at appropriate place

[1] Information taken during E&S Screening field visit

- Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion
- Providing, fabrication and fixing pole mounted Direction Board/road delineator of any shape and size
- Providing, fabrication and fixing Vertical Post comprising of medium quality G.I Pipe
- Providing & fixing Cat Eyes
- Earthwork excavation in open cutting up to 5'-0" (1.5 m) depth for storm water channels
- Cement concrete plain including placing, compacting, finishing and curing complete
- Pacca brick work in foundation and plinth
- Providing and fixing DB/Panel accessories of required rating and size i/c copper screws of approved brand nd directed by the Engineer in-charge
- Supply and erection of bus bars, for 500 volts 3 phase A.C. supply with four copper bars, including glazed porcelain bridges, on angle iron board fixed with rag bolts and M.S. sheet box 1.5 mm thick, etc. complete
- Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP 65, Philips/Osram/Thorn with corrosion resistant die casted aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection i/c the cost of all accessories/components required for proper operation

3.10. Restoration and Rehabilitation Plan

Site rehabilitation should ensure that all disturbed areas caused by construction and maintenance activities are restored, leaving a stable environment that is conducive to the establishment of landscapes characteristic to the area. A number of water, power and telecommunication system assets, manholes, streetlight poles exist along the road alignment. Risks of damage to these will be minimized and effects mitigated by ensuring high standards of site supervision and vehicle and plant operation to reduce risks of damage.

All the excavated material and excess construction material and debris will be immediately removed from site and transported to designated site. Water sprinkling will be done on regular basis till the completion of project to avoid impacts of dust on plants and human beings. All the temporary diversions will be removed and access routes will be restored. Any temporary structure or facility built by the contractor will be removed/ dismantled and the place will be restored to its original condition.

Section-4 Description of Environment

This section describes the baseline conditions, which cover the existing physical, ecological, and socio-economic environment of the Project Area. Information on these aspects has been derived from the desk study of available data, field visits to the project area as well as information obtained through visits to the Government departments and other relevant agencies.

The aim of describing the environmental conditions of the study area is:

- To understand the environmental characteristics of the area
- To assess the existing environmental quality, as well as the environmental impacts of the future developments being studied
- To identify environmentally significant factors or geographical areas that could influence any decision about future development.

The purpose of socio-economic survey was to compile information about:

- The generic characteristics of nearby communities
- Socio-economic status
- Cultural traditions
- Social issues and religious affiliations

An environmental baseline study is essential to have a thorough understanding of the nature of those existing environmental conditions prior to commencement of any proposed project activities. A site visit was planned to obtain environmental data on physical, biological and socioeconomic parameters. In addition to that, interviews with stakeholders, consultation with general public in the surroundings as per need and meeting with concerned government departments regarding project were held to obtain NOC of proposed project.

Baseline data includes an inventory of physical, ecological and socio-economic parameters in order to identify any potential impact on and changes to the natural and socioeconomic aspects. Covering these aspects, data has been grouped into three categories:

4.1. Baseline Physical Environment

4.1.1. Topography[2]

The project is located in a flat plain area and the average elevation of the project district is barely 50 m above sea level

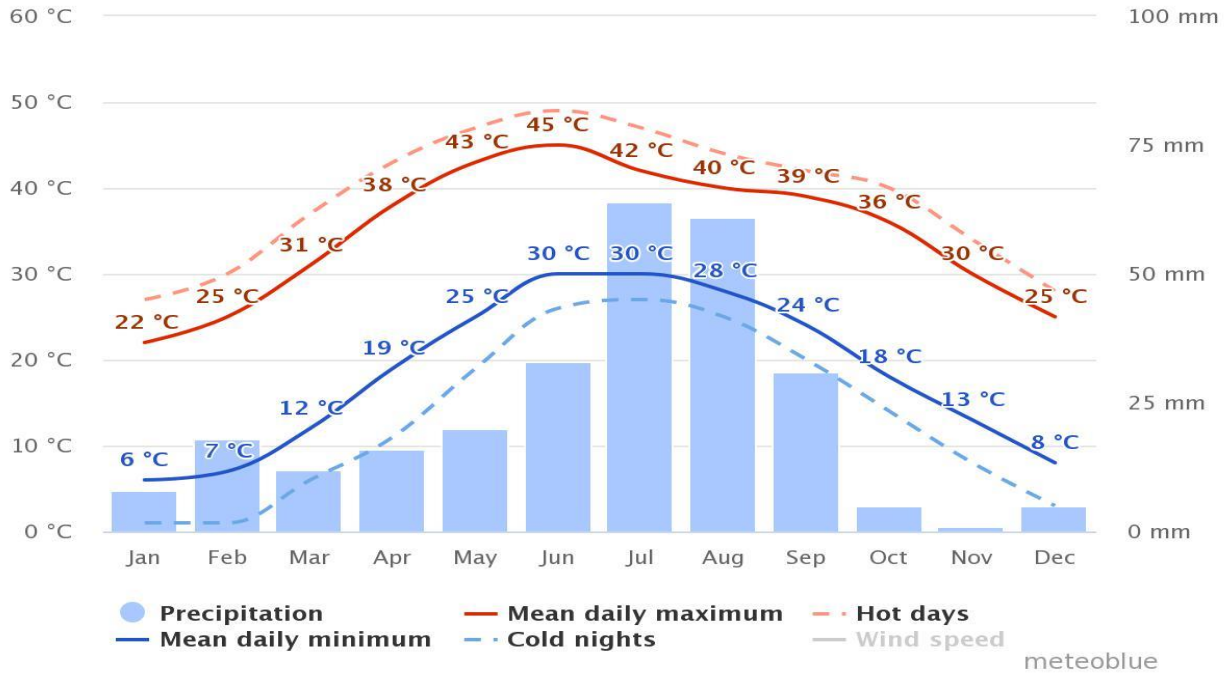
[2] IEE Renewable Energy development sector Investment program Okara

4.1.2. Soil [3]

The soils of the subproject are characterized as alluvium deposits of sandy-loam and sandy-silt. These soils are generally well drained but due to vast irrigation networks some signs of water logging and salinity have been observed in the area.

4.1.3. Climate and temperature[4]

Okara has a hot and moist climate in summer. The maximum temperature in summer reaches up to 45˚C. In winter the minimum is 6˚C. The summer season starts from April and continues till October. May, June and July are the hottest months. The winter season on the other hand starts from November and continues till March, December and January are the coldest months when the temperature drops to the extent of 20˚C or even below. Wind and storms are quite uncommon during the summer.



4.1.4. Precipitation[5]

The rainy season starts in July and ends in September. Most of the winter rains are received in the months of March and April. The maximum rainfall in the district is just below 10-20 mm. and 20-50mm in the month of September.

[3] ibid
[4] https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/okara_pakistan_1168718
[5] ibid

The rainy period of the year lasts for 5.5 months, from February to September. The month with the most rain in Okara is July with minimum rainfall 0 .2 mm and maximum 20-50mm.

The rainless period of the year lasts for 4.5 months, from October 2 to February 25. The month with the least rain in okara is November, with an average rainfall of > 2 inches.

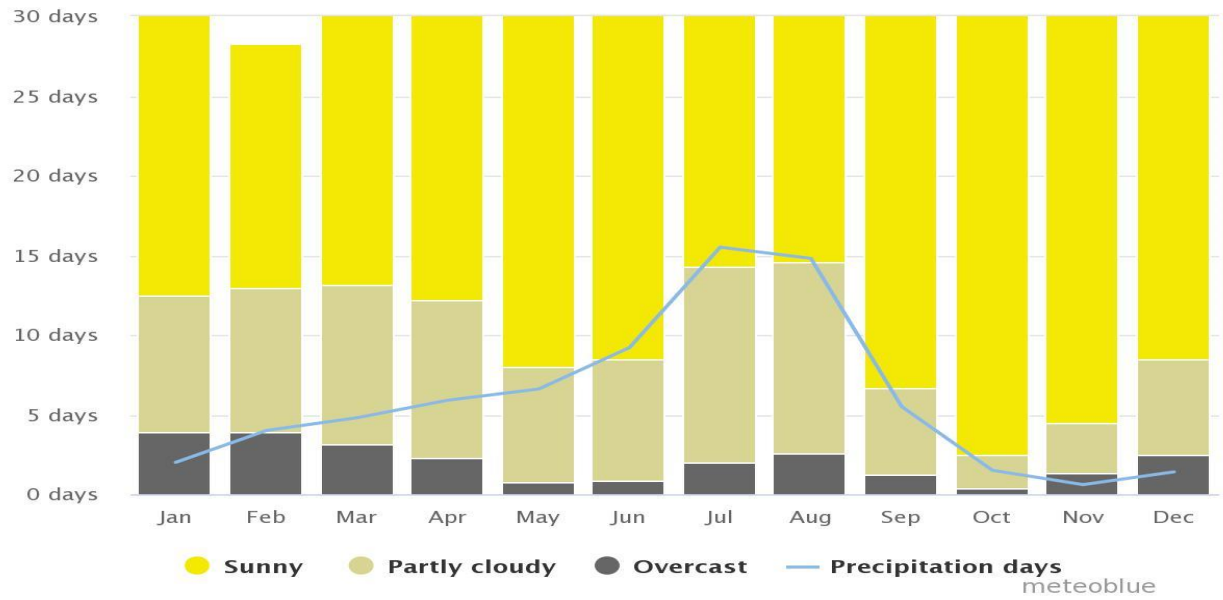
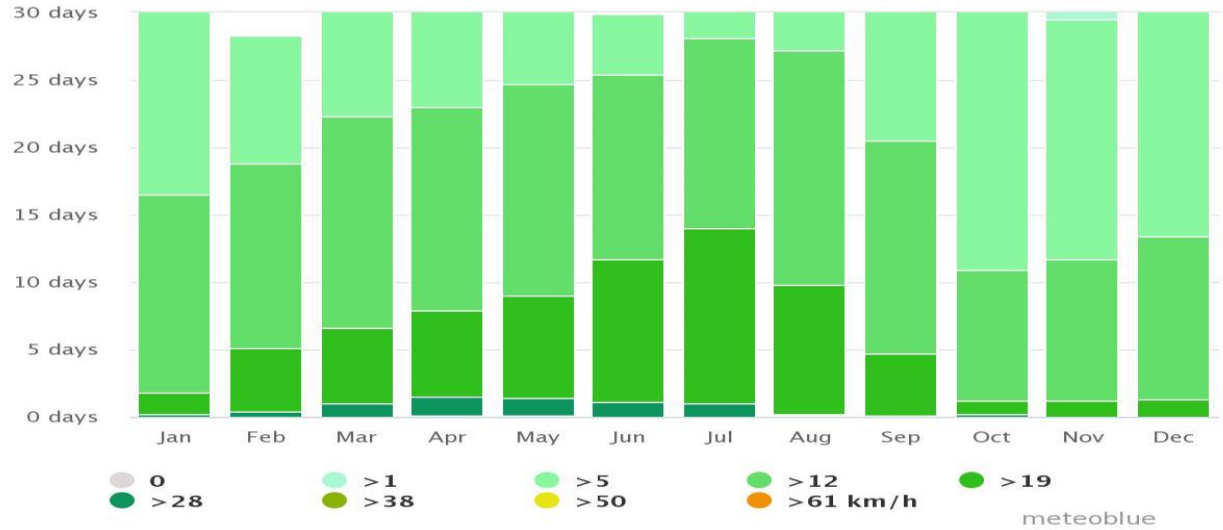


Figure 2: Precipitation in Okara

4.1.5. Wind Speed[6]

In Okara, maximum wind speed has been recorded and >28 km/hr from February to July. Average wind speed >19 km/hr has been recorded throughout the yea



[6] https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/okara_pakistan_1168718

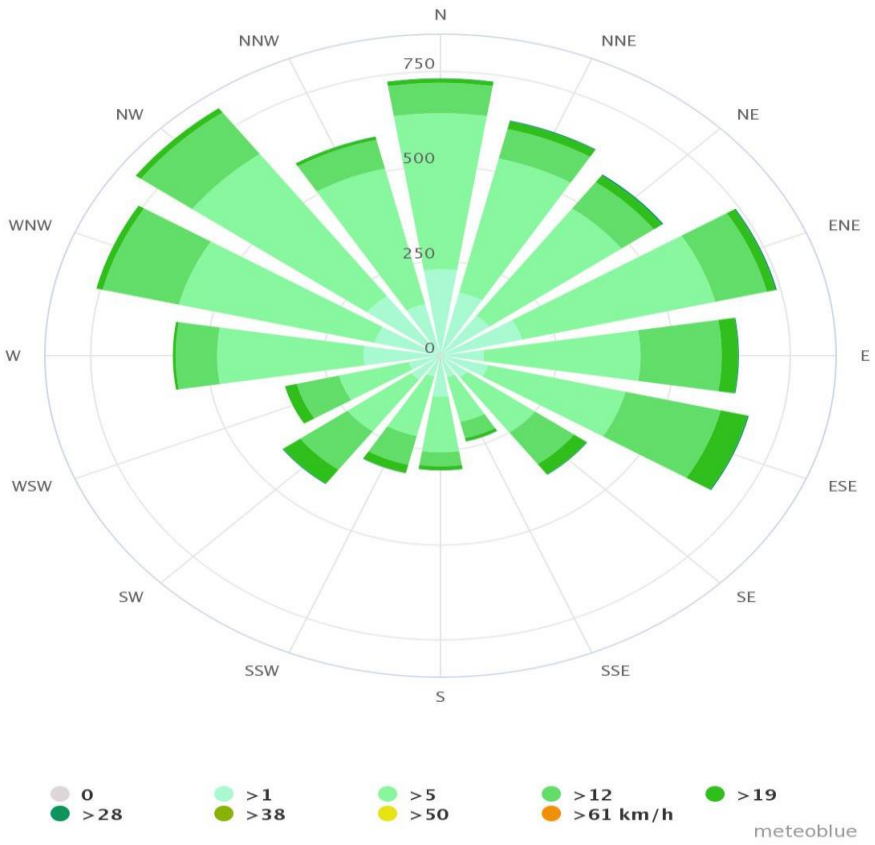


Figure 3: wind speed in Okara

4.1.6. Geography[7]

Okara District is a district of Punjab, Pakistan. It became a separate district in 1982, before that it was part of the Sahiwal District. The Multan Road connects the district capital, Okara with Lahore 110 km away and Faisalabad 100 km bypassing the Ravi River.

[7] https://okara.punjab.gov.pk/geography

4.1.7. Seismologic Zone[8]

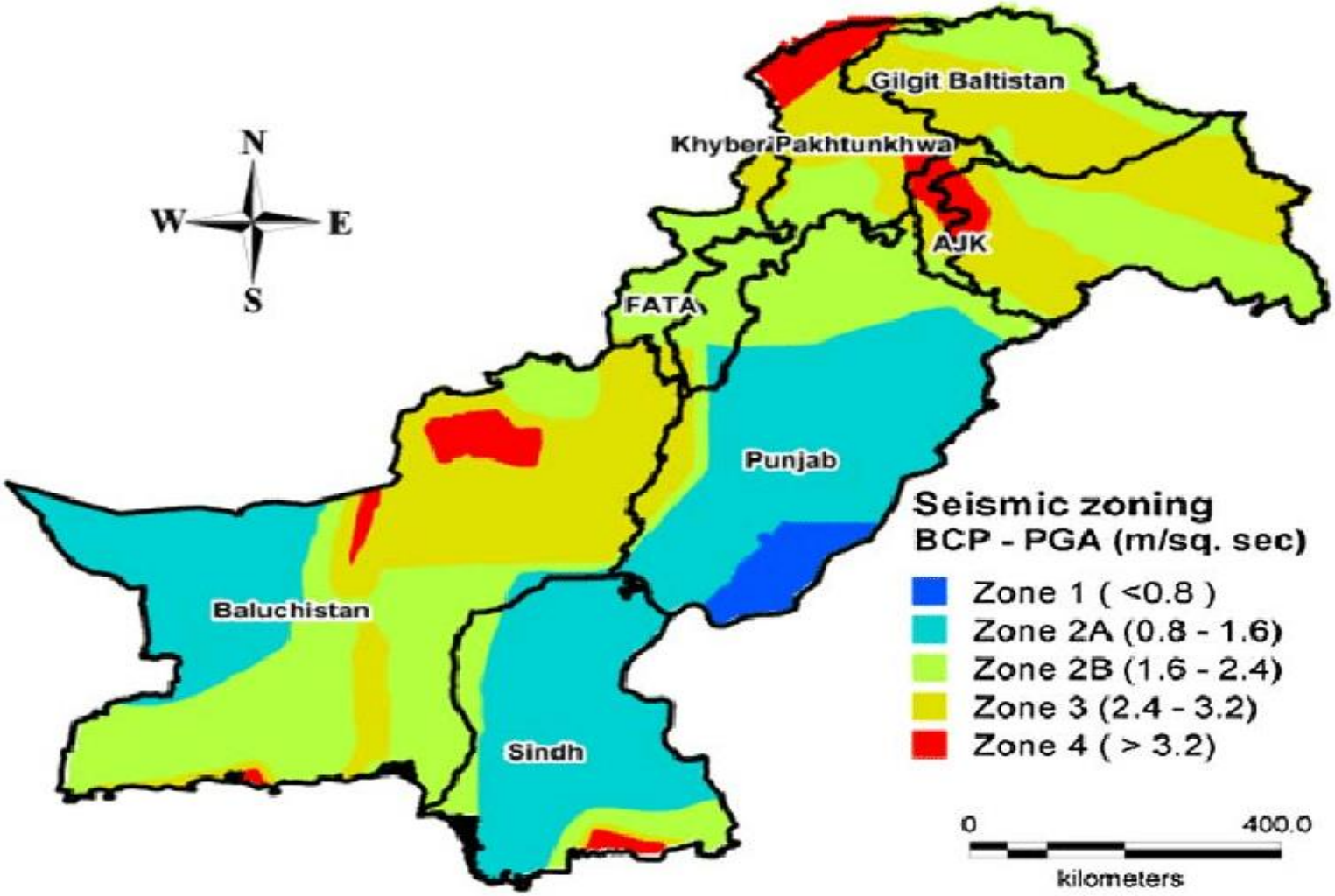


Table 4; Seismic Zones of Tehsils of Pakistan[9]

Tehsil	Seismic Zone	Tehsil	Seismic Zone	Tehsil	Seismic Zone
Punjab					
Bhakkar	2A	Kasur	2A	Kot Addu	2A
Kalur Kot	2B	Chunian	2A	Bahawalpur	2A
Mankera	2A	Pattoki	2A	Hasilpur	2A
Darya Khan	2A	**Okara**	2A	Yazman	2A
Khushab	2B	Depalpur	2A	Ahmadpur East	2A
Nurpur	2A	Renala Khurd	2A	Khairpur Tamawali	2A

According to the Seismic Data of Pakistan; Okara lies in 2A zone with minimum risks to any earthquakes its Peak Ground acceleration is (PGA range is 0.08-0.16g) with minimum risks to any earthquakes.

4.1.8. Natural Disasters Data

Geographically Okara city lies at a distance of 32 Km and 111 Km from River Ravi and Satluj respectively and is therefore historically not affected by floods.

4.1.9. Potential Hazards of District Okara

Table 5: Risk Analysis of Potential Hazards of District Okara

Hazards Risk	Likelihood Score (1-5)	Impact Score (1-5)	
Floods	4	3	12
Urban Flooding	3	2	6
Flash Floods	1	1	1
Hill Torrent	1	1	
Glacial Lake Outburst Flood (GLOF)	1	1	1
Landslide	1	1	1
Tornado	1	1	1
Earthquake	2	1	2
Drought	1	1	1
Epidemic	2	1	2
Fire Incidents	3	3	9
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	4	3	12
Environmental Hazards (industrial accidents, severe pollution etc.)	1	1	1
Risk = Impact x Likelihood Low: 1-7 Medium: 8-14 High: 15-25			

Source: District Disaster Management Plan 2020 (District Okara)

[9] https://iisee.kenken.go.jp/net/seismic_design_code/pakistan/pakistan_table111.html

4.1.10. Water Resources [10]

The city is divided into two zones by Lahore-Karachi railway track and is called North & South Zones. Originally 19 tube wells for north zone were installed on the bank of Lower Bari Doab Canal (LBDC) between the LBDC and 4-L distributary whereas the tube wells for south zone were installed on the bank of 4-L distributary. Both the irrigation channels diverge away from each other at the south-western end of the city.

The discharge of 4-L distributary is 260 cusecs only and after some time the water quality of the tube wells installed on the banks of this channel, deteriorated because of excessive withdrawals as compared to the recharge and became unfit for human consumption. In this way acute water shortage was experienced in the south zone.

4.1.11. Water Quality

No specific primary and secondary data available in context of Okara City. MC Okara has not sampled/analyzed any drinking water since PHED handed over whole water supply infrastructure to MC. Ground water quality was analyzed and it was observed that the quality of ground water from tube wells is generally fit for drinking all the parameters were found within permissible limit of PEQS. Biological analysis showed no contamination of Coliform bacteria in ground water from tube well. Results are depicted in tables below:

Table 6: Results of Water Quality Analysis Report for Samples Collected from Tube Well on 12-10-2022[11]

Sr. No	Parameters	Limit As per PEQS for Drinking water	Tube Well near Project site
01	Turbidity	<5 NTU	<1.0
02	pH @ 25°C	6.5—8.5	7.38
03	Color	<15 TCU	<5.0
04	Solids, Total Dissolved (TDS)	<1000	210
05	Total Hardness	<500	120
06	Alkalinity, Total as $CaCO_3$	--	132
07	Nitrate, Nitrogen (NO_3)	<50	<1.0
08	Carbonates	--	<1.0
09	Hardness, Bicarbonates	--	<1.0
10	Sulfate (SO_4)	--	27.16
11	Chloride	<250	15.64
12	Conductivity, Electrical	--	341.9
13	Fluoride	<1.5	<1.0
14	Arsenic	<0.05	<0.005
15	Iron	--	0.011
16	Sodium	--	13.10
17	Potassium	--	4.67
18	Calcium	--	27.40

10 GAP Analysis Report, PMDFC

11 Water Quality Analysis conducted by MMP through SGS Labs

19	Magnesium	--	9.30
20	Total Coliform	0 CFU / 100ml	Absent
21	Fecal Coliform	0 CFU / 100ml	Absent

4.2. Baseline Ecological Environment

4.2.1. Flora and Fuana[12]

In Okara district, the most important species of trees are Kikar (Acacia Arabica); Shisham or Tahli (Dalbergia Sisoo); Beri (Zizyphus jujube); Pipal (Ficus religiosa); Shrin (Albizzia lebbek); Dherek (Melia azeharachi); Phulai (Acacia modesta) and Bohr (Ficus bengalansis). 18 trees of Jaman, Datepalm, Neem, Toot and Sufaida are located along the footpath and 35 trees of same species are located on the other side of the road but outside of RoW. No tree cutting is involved during the execution of the project. Jackals, jungle cat, Bengal fox, small indian mongoose, shrew hog, ravine deer, porcupine, fruit bats and wild boar are commonly found. Among avifauna house sparrows, bank mynas, cattle egret, green pigeons and barbets, hornbills, are present in Okara . No wild animal/ endangered species is found in the project area.

Anyhow, this sub-project lies in the urban area where no impact on flora and fauna is envisaged

4.2.2. Forest Resources[13]

The entire Okara District has no natural forests, mainly due to vast agricultural activities. Until a few decades ago Ravi River was well known for riverain forests, known as Bela forests, which have almost become extinct due to lack of water. Except Pipli Pahar irrigated plantations of 7,275 acres, the district has no other reserved forests. However, according to an old provincial notification, the trees along canals, provincial highways and rural roads are the responsibility of forest department, and fall in the category of reserved forests.

The common species in such plantations are Poplar (Populus alba), Eucalyptus, Keekar (Acacia arabica), mulberry (Morus alba) and Jamun (Syzygium cumini).

Anyhow, this sub-project lies in the urban area where no impact on forest resources is envisaged

4.2.3. Fish Resources[14]

It is reported by the Fisheries Department that the main fish species found in Canal are Gulfam (Cyprinus carpio), Rahoo (Lebeorohita sp) and Mohri (Crhinus miragata). The Department has conducted no methodical fish surveys of fresh water streams and canals, in the recent past. Because of the construction of several barrages on the river

[12] Information obtained during field visit
[13] ibid
[14] ibid

network, migratory species like Khagga, Bam and Pamphlait have almost become extinct in Punjab waters and Soal and Shangri are considered to be highly endangered.

Anyhow, no impact on fish resources is envisaged in this subproject.

4.3. Baseline Socio - Economic Environment

4.3.1. Demographic Characteristics

The population of Okara is 3,040,826 as recorded in 2017[15]. The project lies in the urban area. Birth, Death, fertility, mortality, fecundity, Crude and net birth rate and migration are the most important demographic factors.

4.3.2. Sewerage and Drainage[16]

Topography of Okara town is flat. Sewerage coverage is 50 % of the town and 25 % is served with open drain while remaining 25% are totally un-served area. 50% of the existed Sewerage is silted up. There is lot of stress on its trunk sewer; especially in monsoon season, flooding occurs in different locations. Untreated wastewater is being sold to the farmers by annual tender. De-silting is being done manually. The disposal stations are working maximum hours so that water should not over flow in sewer lines, but during rainy season it is difficult to control and flooding occurs in different areas

Okara has better economic conditions because of its Location on the main GT road and Railway line connecting to major cities of Pakistan i.e Rawalpindi, Lahore, Multan, Karachi and Quetta and also Okara is very famous for its Rice, Sugar, Oil/Ghee, Electronics, Textile, Cotton, Surgical Cotton, export quality Crockery products

Smoke and noise pollution by vehicles is the other main issue, emission of smoke from the foundries is degrading the environment level of the Okara city.

4.3.3. Solid Waste Management [17]

Solid waste generation in Okara is about 105 tons per day. Most of the town is covered by solid waste management system. Detail of service level in Mohallah and roads along with location of container. Solid waste management in Okara comprises of primary collection from streets, secondary collection and final disposal

4.3.4. Urban Transport Service[18]

Okara was originally planned as a colony/mandi town on the pattern of radial planning. Commercial zones lead to a central point and residential block on the back. The roads are straight and wide having right of way varying from 28ft -99ft. Congestion prevails throughout the town especially in central areas due to the lack of proper development control. Major roads passing through the town are GT road and By-pass Road.

[15] https://www.pbs.gov.pk/sites/default/files/population/2017/results/06201.pdf
[16] https://www.urbanunit.gov.pk/Download/publications/Files/8/2021/PCIIP%20Cities%20Profile-Okara.pdf
[17] Ibid
[18] ibid

Lahore-Multan Road: GT road that passes through the city is the main artery of entire road network. Being on the main GT road, has led different land uses to concentrate along the Highway. Its repercussions are twofold. On one hand, lot of traffic both slow and fast moving had been generated on the Grand Trunk road, causing obstruction in through traffic, accident hazards and lack of flow of fast moving vehicles.

Commercial activity and residential areas have sprung up along the GT Road. In addition, present Bus Stand created a lot of congestion. This haphazard development created need for diverting the through traffic outside the city area. Therefore, By Pass Road was constructed in the south of the town. This road diverts from the GT road in the southern direction, runs parallel to the town and then joins the Highway in south west of the town. With the construction of by pass, all of the fast moving through traffic moves without being obstructed by the slow moving traffic.

The surface condition of all of these roads is very poor. There are pot holes, broken surface that causes hindrance in driving and smooth flow of traffic. During rains, due to lack of adequate drainage services water stays for days on the roads. This further deteriorates the surface condition.

4.3.5. Existing Socially Sensitive Receptors

- Loss of structures in terms of ramps of 03 schools-public consultation was carried out with the owners and ARAP has been developed to pay them compensation before execution of the subproject

- 03 Mobile vendors and 1 fruit kiosks- will have to be relocated temporarily on the other side of the same road

- 01 Electric Pole to be relocated- It was informed by MC Okara that the electric pole will be relocated by Lahore Electric Supply Company (LESCO) for which Demand Notice has been sent to the relevant office.

Photographs of 03 ramps to be dismantled and 01 electric pole to be relocated

4.4. Suitability of the Site

The proposed site for widening and improvement of road from Tank Chowk to Akbar Chowk along canal road has no environmentally or socially sensitive area such as wildlife sanctuary, national park or game reserve etc.

No estuarine, special area for protecting biodiversity, buffer zone of protected area, mangroves forest or man-made forest/ orchid/ crops or any other area of environmental importance is present in the vicinity of the project area.

A surface water body in the form of canal is present along the entire stretch of the project where canal water may be affected due to mishandling of excavation material of existing road surface. For which, instructions will be issued to the contractor and labor to avoid throwing any trash and excavated material in the canal. All the construction waste will be removed from site to avoid contamination of surface water.

In this way, the proposed site is environmentally and socially viable.

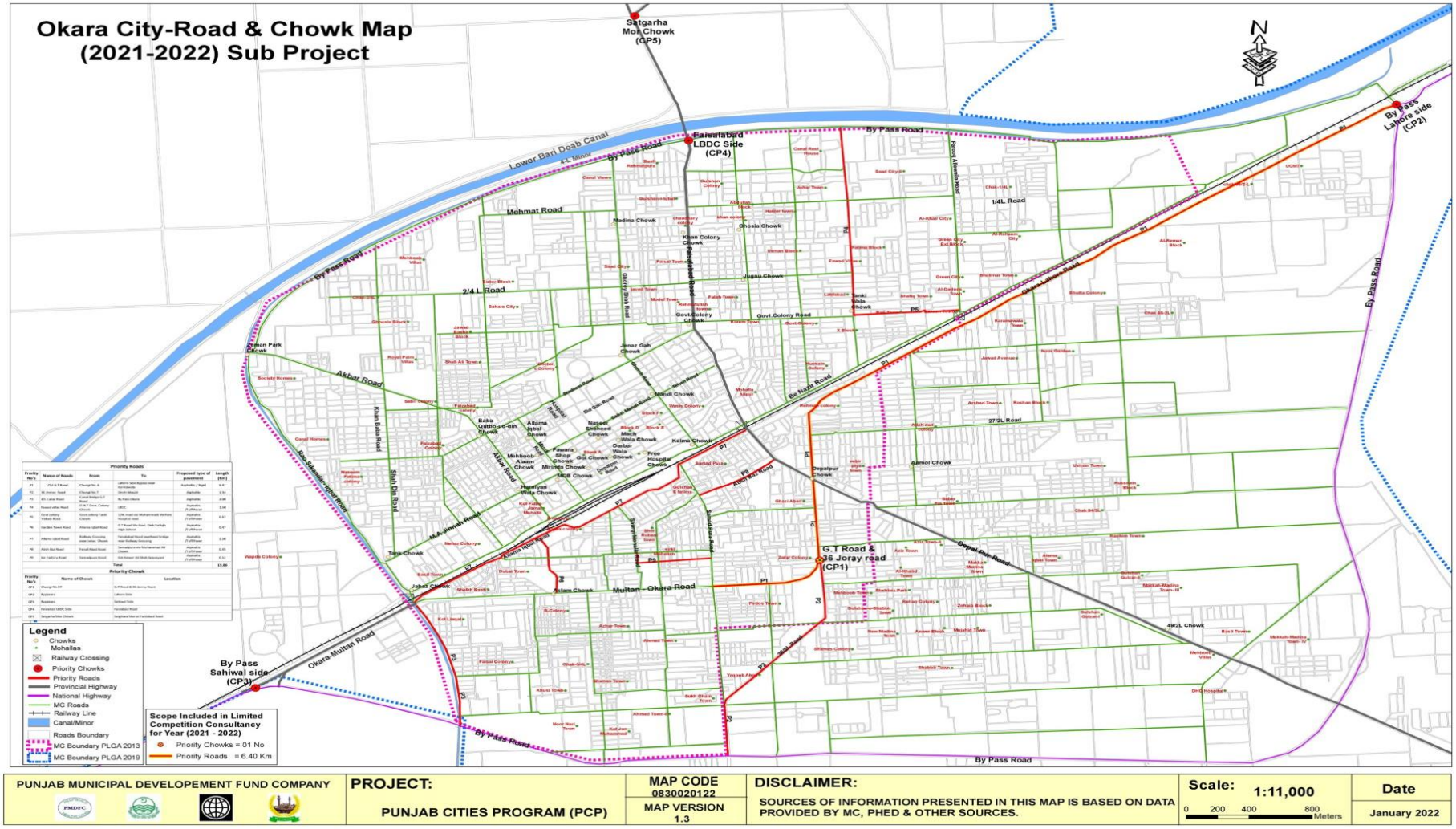
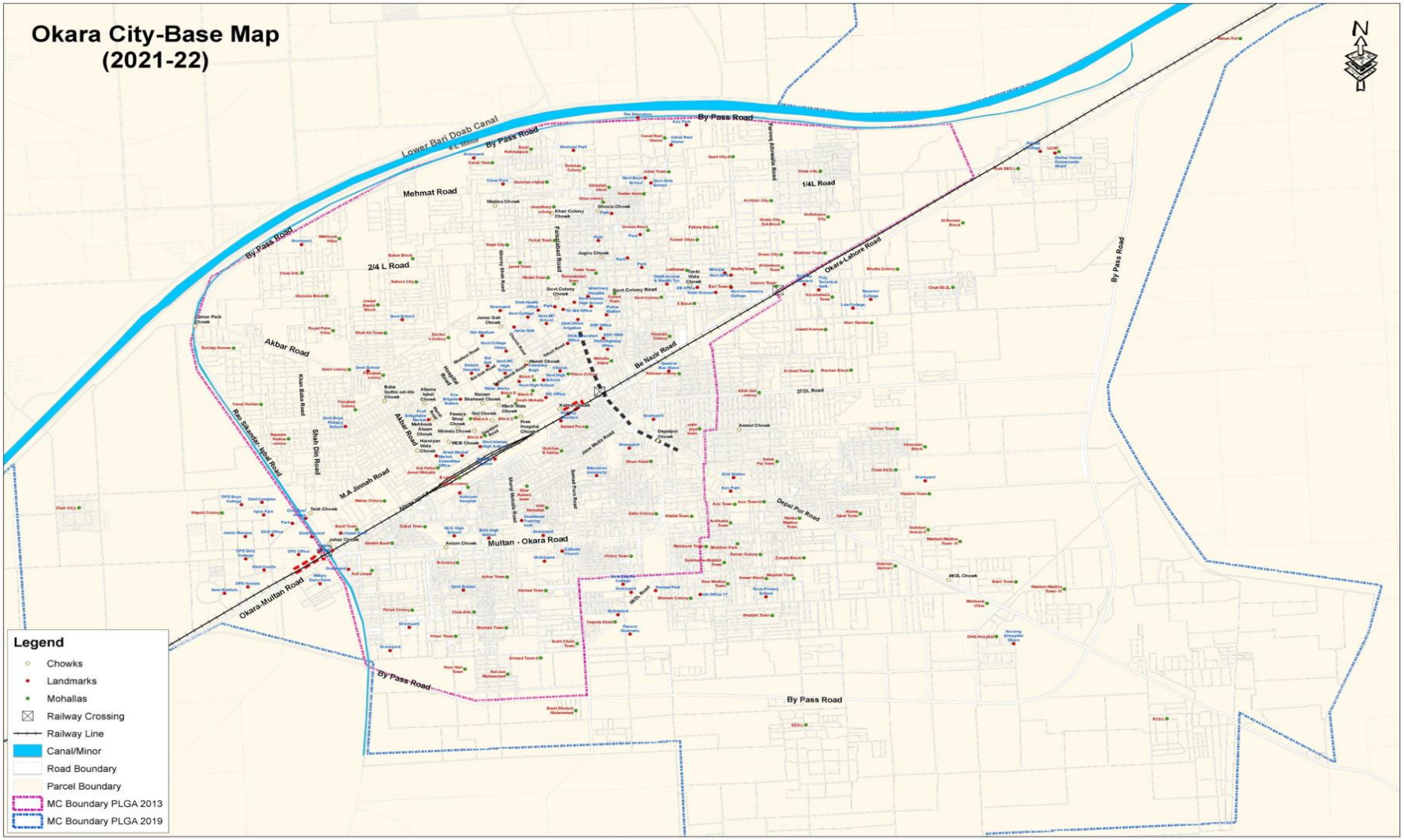


Figure 4: Okara City Roads and Chowks



PUNJAB MUNICIPAL DEVELOPEMENT FUND COMPANY	PROJECT:	MAP CODE	DISCLAIMER:	Scale:	Date
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Section-5 Screening of Potential Environmental Impacts and Mitigation Measures

This section provides the analysis of the potential impacts during preconstruction/design, construction and operational phases of the proposed sub-project on the physical, biological and socio-economic environment of the sub-project area. The impacts associated with these activities are water/groundwater contamination; solid waste management; air quality issues, primarily related to dust generation, noise, and occupational safety of labour, and community risks etc.

5.1. Potential Environmental Impacts and Mitigation Measures – Design Phase

5.1.1. Site Selection

Appropriate site selection is one of the most important factors for constructional purposes. Sub-project physical works will improve or rehabilitate the existing road which connects main city, as well as widen it within existing ROW.

Potential Impact

Site selection has positive impacts on social life of local people. An improved road may encourage more commutators to use the road.

5.1.2. Dismantling/Demolishing of Existing Road Structure

Potential Impact

- Dust, Noise and vibration issues may arise during dismantling of road posing minor health issues on labor and nearby community.
- Noise pollution due to use of heavy machinery, and air pollution due to machinery emissions and/or dust due to earthing activities.
- Scattered solid waste may affect visual and aesthetic environment and provide breeding place to mosquitoes.
- Heaps of solid waste may cause disturbance in mobility.

Mitigation Measures

- Updated and tuned machinery will be used to control noise.
- Plan to neutralize dust emissions from construction activity, such as watering of sub-project area to settle dust during dismantling. Water sprinkling will be carried out at consecutive intervals.

- Dust masks and ear plugs should be provided to the labor.
- Bitumen waste should be stored in closed containers, placed in a fenced storage area with paved floor, and should be properly disposed off.
- Scattered solid waste should be properly managed in order to avoid contamination
- Availability of bins will be ensured for commonly generated solid waste.

5.1.3. Identification of Site for Construction, Camps, Asphalt and Batching Plant

Potential Impact

- Tree cutting may be needed for the construction of camp site, asphalt and batching plant site.
- Loss of livelihood & resettlement Issues.

Mitigation Measures

- Sub-project is of 1.88 km length, which is not extensive, and civil works will be completed approximately within 6 months' time. Approximately 100% of the workforce will be hired from the sub-project area. In case of hiring of labor who is non-resident of the city, the contractor will be encouraged to rent local homes to house the out-of-station labor 1 km away from the residential area rather than establish labor camps in the populated area.
- In case of installation of batching/asphalt plant, MC owned available encroachment free area will be selected.
- Tree cutting is not involved and in case if it may required, tree plantation will be provided with the ratio of 1:10.
- ARAP has been developed for compensation of 03 APs whose loss of structures will happen in terms of dismantling of ramps/foot-steps. During the construction activities, contractor will be bound to restore if any loss of structures/property may happen

5.2. Potential Environmental Impacts and Mitigation Measures – Construction Phase

A) Physical Parameters

5.2.1. Soil Degradation

Impacts – The construction phase activities may result in degradation of soil. This may be caused due to soil erosion during the construction due to uncontrolled run-off from equipment washing yards, excavation of earth/cutting operations and clearing of vegetation. Unauthorized use of borrow areas and quarries may also cause soil erosion and degradation of landscape. This may limit the future use of land for agricultural purposes.

Mitigation Measures

- Careful use of machinery and equipment should be ensured to prevent leakages which may result in the release of contaminants directly onto the soil.
- Ensure that the machinery should be kept away from exposed soil area and should be repaired on an immediate basis at designated workshops having impermeable floors.
- Removal of vegetation and trees will be avoided to the extent possible.
- Provide impervious platforms in maintenance yards and storage areas with oil and grease traps for collection of spillages during storage of liquid fuel and lubes, and equipment and vehicle maintenance.
- Contractors to follow proper handling and disposal of construction waste and materials in designated site.
- The contractor will ensure prevention of soil erosion and destabilization by applying batched excavation technique.
- Productive land or land adjacent to agricultural/irrigated land may not be used for excavation.

5.2.2. Air Quality

Impacts – The machinery, equipment, diesel generators, operation of batching plant and sub-project vehicles will be used for movement of people and construction activities such as excavation, levelling, filling of earth material etc. Due to these activities release of exhaust emissions, containing carbon monoxide (CO), sulphur dioxide (SO2), oxides of nitrogen (NOX), and particulate matter (PM) is expected, which can temporarily deteriorate the ambient air quality in the sub-project site and access roads.

Mitigation Measures

- All vehicles, machinery, equipment and generators used during construction activities should be kept in good working condition and be properly tuned and maintained to minimize exhaust emissions.
- Open burning of solid waste from the Contractor's camps should be strictly banned
- Stockpiled materials will be covered to avoid dust/particulate emission.
- Adoption of preventive measures against dust such as regular water sprinkling of the site including service roads and excavation sites.
- Near cultivation fields, the speed of the vehicles will be reduced to 15 km/h to avoid excessive dust emissions.
- The exhaust emissions will comply with the PEQS.
- The contractor shall be required to minimize the double handling of material during earthworks operations for the embankment strengthening and channel lining.
- The contractor shall be prohibited from vegetation clearance beyond the ROW.

- Water sprinkling shall be carried out at material stockpiles where dust is generated.
- Materials delivered to sites, such as cement, loose material, sand or aggregates shall be transported in a covered truck. Burning of waste oil should be strictly prohibited.

5.2.3. Noise and Vibrations

Impacts – During construction, use of heavy machinery such as bulldozers, excavators, stabilizers, concrete mixing plant, etc. can result in noise pollution and vibrations, causing discomfort and health hazards to workers and surrounding communities, especially those using the religious and sacred sites.

Mitigation Measures

- Use of modern and well-maintained vehicles and machinery with reduced noise emission levels; Confining excessively noisy work to normal working hours (8am-5pm) in the day.
- Providing construction workers with suitable hearing protection such as earmuffs and train them in their use.
- Locating the concrete mixing, and materials shipment yards at least 500m from residential areas, and religious sites.
- The contractor shall keep in place any acoustic guards, covers, and doors provided on plant, generators, and vehicles and maintain all in accordance with the manufacturer's maintenance procedures to ensure good working order.
- Pressure horns will not be allowed while passing through or near communities in the sub-project area.
- The contractor shall train the operators of construction equipment on potential noise problems and the techniques to minimize noise levels.

5.2.4. Surface and Groundwater

Impacts – No such land erosion and sedimentation will occur during the proposed sub- project construction. The construction residue and debris, if not handled and stored properly may result in groundwater contamination. However, there is no significant surface water at the sub-project site so it is envisaging that the impact on surface water is negligible while the impact on groundwater at the sub-project site may become significant if proper measures are not take. A nullah/sewerage drain is also passing alongside of the sub-project area.

Mitigation Measures

- Ensure that all liquid raw materials such as oil, lubricants, and chemical at all proposed sub-project sites are stored within the storage yard with impermeable floors.

- Proper disposal of solid waste in designated site to sustain the water quality for domestic requirements. Services from MC could be taken for timely management of waste.
- Water required for construction should be obtained in a way so that water availability and supply to nearby communities remains unaffected.
- The contractor will obtain all necessary permits for the Local Authority related to water consumption.
- The contractor will ensure that construction debris does not find its way into the drainage or irrigation canals. Wastes from the construction sites will not be released to nearby water sources, cultivation fields, irrigation channels which may get clogged.
- Prohibit washing of machinery and vehicles in surface waters, provide sealed washing basins and collect wastewater in sedimentation/retention pond.
- Construction work close to water bodies/ channels will be avoided, especially during monsoon period.

5.2.5. Waste Disposal

Impacts – The main types of waste expected to be generated and requiring disposal include:

- Fuel, oils, and chemicals;
- Sewage;
- Campsite waste;
- Medical waste;
- Demolition waste;
- Packing waste; and,
- Excess construction material.

Construction activities can result in the generation of wastewater, oil spillage from machinery, domestic waste from labour camps and construction related solid waste. Improper solid waste disposal can result in increased air pollution through burning of waste, vector borne diseases, and contamination of water sources.

The construction activities are not perceived to result in the production of any hazardous waste. As the sub-project deals with the construction of civic facilities, no blasting is perceived nor is use of hazardous substances anticipated during the construction waste.

Mitigation Measures

- Prepare a detailed Solid Waste Management Plan for the construction site (including adequate placement of waste bins, requirements of sanitary staff, transportation of waste, and identification designated site for final disposal).
- Do not allow siting and location of worker camps, including waste dump sites, in a distance closer than one kilometre to any inhabited areas and religious and historic site

- Plan for placement of waste collection containers throughout the sub-project area
- Disallow the burning of any of type of waste
- Prepare plans for the safe handling, storage and disposal of harmful materials
- Implement resource conservation, and encourage staff (through training) to reduce waste, reuse waste and recycle waste wherever possible
- All COVID-19 waste such as, gloves, face mask, tissue papers shall be disposed-off in already placed separate top covered waste bins in different identified areas as per contractor waste management and disposal plan. These waste bins shall be marked with COVID-19 waste·
- All COVID-19 waste shall be collected with appropriate safety measures and be transported to the burning pit away from construction site and from community.
- Collect all bio-degradable domestic waste and dispose of at the designated area as defined by MC.
- Do not burn materials which may lead to the release of toxic or hazardous substances (see PEQS)
- Sell recyclable waste to local vendors
- Collect non-biodegradable waste separately and dispose of at designated waste disposal area·
- Enforce the use of garbage bins and prevent littering of the site
- No fire is allowed in open.
- Do not burn materials such as plastics and polyethylene which may lead to the release of toxic or hazardous substances.
- Waste will be collected and disposed off in municipal waste dumping points.
- Reduce construction waste by reusing waste as a fill material (prior to testing to confirm the suitability of material)
- Collect construction waste separately to domestic waste·
- Collect and remove all construction waste from the sub-project area.
- Reuse material as fill material or sell to local vendors· Sell or reuse gates removed from structures·
- Treat construction wastes water and dispose of after treatment·
- Do not burn materials which may lead to the release of toxic or hazardous substances
- Request suppliers to minimize packaging where practical·
- Do not burn materials which may lead to the release of toxic or hazardous substances
- All the medical waste shall be disposed off in burial pits.
- The burial site shall be identified away from community residents and sub-project area. The burial site shall be identified on the barren land with due coordination of MC.
- Handover to specialized and certified disposal contractor.

- Effluent from contractor's workshop and equipment washing yards would be passed through gravel/sand beds to remove oil and grease contaminants before discharging it into nearby canal or agricultural land.
- Training of workers will be carried out in the storage and handling of materials and chemicals that can potentially cause soil contamination.
- Proper labelling of containers will be carried out, including the identification and quantity of the contents, hazard contact information etc.
- Emergency Response Plan should be prepared to address the accidental spillage of fuels and hazardous goods at storage areas.

5.2.6. Physical Cultural Resources

Impacts - Due to the location of sub-project close to religious and sacred site, there may be some negative impacts due to air and noise pollution, and vibrations due to movement of heavy vehicles and use of heavy machinery. There is also a chance that excavation work during construction may result in the uncovering of ancient sites or artefacts (Chance Finds).

Mitigation Measures

- The most important single strategy for heritage protection is site avoidance: redirecting activities so that they do not endanger a site by limiting noise and air pollution while working close to the religious and ancient sites. Any development or physical activity should be at least 200 feet away from the heritage sites.
- Suggestion of the local communities and the concerned authorities will be suitably incorporated during taking the preventive measures to conserve the antique, artefact and cultural (religious) properties.
- Secure the site to prevent any damage or loss of removable objects. In case of removable antiquities or sensitive remain, a night guard shall be arranged until the responsible local authorities take over.
- Contractor should immediately stop the work and follow the Chance Find Procedures.
- In case of discovery of ancient sites or artefacts during construction, follow the procedure for Chance Finds Procedures.

B) Biological Parameters

5.2.7. Flora

Impacts: Local flora is important to provide shelter for the fauna, offer fruits/or timber/fire wood and protect soil erosion. Damage to flora has a wide range of adverse environment impacts. No tree cutting is involved.

Mitigation Measures

- Planting of ten trees for every tree cut during construction
- Not introduce invasive or exotic species through plantation

- Measures to prevent soil and water contamination will forestall any adverse impact on the faunal diversity of the area.
- Contractor shall prepare a conservation plan to avoid any impact on fauna during construction.

5.2.8. Fauna

Impacts: Sub-project area does not fall in any of the wildlife habitat and does not cause any harmful impacts directly and indirectly. It involves only upgradation of existing road located along agricultural areas rather than construction of new road. There are no wetlands, or any other type of natural habitat to support critical mammal or bird species. There might be a risk to key ground nesting birds which could accidently be harmed during works throughout the nesting season. The birds shall vacate the area before construction machinery approaches.

Mitigation Measures

- On identification of any nest, the contractor will immediately cease works in the area and inform the Supervision Consultant. The contractor will also erect a fence within 50ft of the nest and prohibit any works within this area until approved by the Engineer.
- The contractor's staff will sign a code of conduct prohibiting hunting, poaching or trapping of animals.
- Provide adequate knowledge to the workers regarding protection of fauna, punishments for illegal poaching.
- Planting of ten trees for every tree cut during construction
- Speed limit will be defined for minimal impacts on fauna.

C) Socio-Economic Parameters

Impacts – Construction/widening of sub-project may require some land acquisition.

Mitigation Measures

During widening of road no land acquisition is required except dismantling of 03 footsteps/ramps for which ARAP has been developed and compensation cost will be paid before the execution of work.

5.2.9. Damage to Infrastructure

Impacts - In the porposed scope of work, no public or private infrastructure are getting damage.

Mitigation Measures

The damage to infrastructure will be minimized by relocating them. The infrastructure which cannot be relocated will be compensated in accordance with provision of RPF. However, no relocation of any kind of infrastructure is involved as sub-project is improvement within existing ROW of the road.

5.2.10. Impact on Livelihoods and Economy

Impact - The proposed sub-project will provide temporary, unskilled construction job opportunities for locals for the duration of the civil works, and a better road may provide a better access to the local market and local encourage the business activities in the area. The sub-project development will enhance employment and business opportunities for the locals, and hence the impact on livelihood is assessed to be positive. It is estimated up to 15 laborers will be required for carrying out construction activities. Out of the total, 100% % of laborers will be from local community. During survey, it was observed that one mobile vendor and 3 fruit kiosks would be temporarily relocated on the other side of the road.

Mitigation Measures:

Detail consultation was carried out with the mobile vendor and 03 fruit kiosks and it was mutually agreed that during construction phase they will be shifted to right side of road just opposite to their current location, during public consultation they were agreed to move. They have to relocate for 1-2 weeks only.

5.2.11. Workers Health and Safety

Impacts - The construction phase will include various activities such as; excavations installation of a batching plant, earthworks, movement of various heavy machines and manual handling. During loading-unloading operation, bad management, improper storage of hazardous materials, (i.e. petrol, admixtures, etc.), could result in adverse effects on the health and safety of staff as well as on the environment and nearby community.

Mitigation Measures

- Train all construction workers in basic sanitation and health care issues (HIV/AIDS, COVID-19).
- Prepare a Worker Health and Safety Plan for the construction phase covering documentation and reporting of occupational accidents, diseases and incidents with complete record for supply of personal protective equipment for all staffs and visitors.
- Identification of potential hazards to workers, particularly those that may be life threatening.
- Ensure health care facilities especially first aid facilities are readily available. Appropriately equipped first-aid stations should be easily accessible throughout the sub-project area.
- Providing appropriate personal protective equipment (PPE) in conjunction with training, use, and maintenance of the PPE.
- Document and report occupational accidents, diseases, and incidents.
- Provide awareness to the construction drivers to strictly follow the driving rules.
- Safe storage facilities for petroleum and other chemicals at sub-project site.

- The contractor should provide drinking water facilities to the construction workers at all the construction sites.
- SOPs regarding COVID-19 for construction site are attached at Annex E.

5.2.12. Public Health and Safety

Impacts – Construction activities and movement of heavy vehicles at construction sites and service roads may result in road-side accidents, particularly with the local community who may not be familiar with the presence of heavy equipment. During execution of sub-project, regular visiting and influx of visitors especially at religious festivals can result in greater inconvenience and disruption for the general public (including the visitors).

Additionally, in order to address the community concerns about the presence of non-local workers, or the risks posed to the community by local workers presence on the sub-project site26, the following good practice should be considered:

Mitigation Measures

- COVID-19 Prevention and Contingency Measures:
- It is estimated up to 15 laborers will be required for carrying out construction activities. Out of the total, 100% of laborers will be local residents and they will be sensitized to avoid any interference with the local residents
- Train drivers operating heavy vehicles in road and pedestrian safety.
- Set appropriate speed limits to avoid accidents.
- Placement of construction signage, particularly at populated area.
- Provision of alternate facilities for use by the public where disrupted.
- Capacity building session on Gender based violence and child abuses for ensuring public safety.
- Effective implementation of GRM for any kind of grievance if may arise related to public safety.
- Periodic meetings with community regarding construction work as well as workers' behavior.

5.3. Potential Environmental Impacts and Mitigation Measures – Post Construction Phase

5.3.1. Changes in Land Value

Proposed sub-project is expected to increase the land values for landowners whose property is served by this road. This will be major positive impact

5.3.2. Restoration of original site

Impacts - Disposal of contaminated construction wastes and left-over construction material can lead to soil contamination.

Mitigation Measures

- Contractor is bound to restore the site back to its original conditions before handing over.

5.3.3. Air and Noise Pollution

Impacts - Improvement in road condition will help reduce traffic related emissions in the short term by allowing a smoother traffic flow.

Mitigation Measures

- Roadside tree plantations as applicable and feasible under harsh climatic conditions plants should be selected in accordance to their ability to absorb emissions
- Regular road maintenance to ensure good surface condition

5.3.4. Soil

Impacts - Disposal of construction waste from sub-project site can lead to soil contamination.

Mitigation Measures

- Ensuring that contractor has properly disposed off all remaining waste including left over material and hazardous waste.
- Managing contaminated media with the objective of protecting the safety and health of occupants of the site, the surrounding community, and the environment post construction or post decommissioning.
- Implementing good house-keeping practices, such as the sorting and placing loose construction materials or demolition debris in established areas away from foot paths
- Cleaning up excessive waste debris and liquid spills regularly.

5.3.5. Biodiversity Conservation

No negative impacts are envisaged on the flora of the area during the operational phase. However, improper maintenance of the saplings planted against the trees cut for the proposed sub-project may adversely affect the growth of those saplings which were planted to improve the environmental aesthetics of the sub-project area. Raising of new trees in two rows on either side of the sub-project shall render a positive impact on the flora of the area and will also cause a positive impact on the landscape of the area, which shall be of permanent in nature. Presence of adequate flora will absorb CO2 gas, through photosynthesis, emitted from an expected large number of cars, vehicles and public transport, thus purifying air of hazardous particles.

Mitigation Measure will include planting of native trees along both sides of the sub-project which shall contribute towards improvement of flora and environment of the area. Invasive species of trees shall be strictly avoided.

Section-6 Environment and Social Management and Monitoring Program

6.1. Objective

The purpose of Environmental and Social Management and Monitoring Plan (ESMMP) for widening and improvement of road 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.

6.2. Institutional Arrangements for Environmental and Social Management and Monitoring

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

6.2.1. MC Okara

MC Okara will be responsible for implementation, monitoring and reporting of ESMP with the technical assistance of ESM Wing of PMDFC throughout the project period.

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

MOI has been nominated for Environment Focal Person; he is responsible for implementation & monitoring of environmental aspects. MOP has been nominated for Social Focal Person he is responsible for implementation & Monitoring of social Aspects

6.2.2. PMDFC ESM Wing

ESM Wing will provide support to ESFPs (MOI for Environment focal person and MOP for Social focal person) for review of the ESMP document and managing environment and social aspects of the subproject 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 subproject 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.

6.2.3. 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 Okara. The Contractor will train his crews 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
- Sage of machinery/equipment's producing negligible/low noise.
- 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.

6.2.4. Supervisory Consultant

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

6.3. 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:

- 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.

6.4. ESMMP Reporting and Reviewing Procedure

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. The distribution of periodic reports is given in table:

Table 7: Distribution of Periodic Reports

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

6.5. 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.

6.6. 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.

6.7. 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).

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Table 8: Environmental & Social Management & Monitoring Plan

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
Design Phase							
	Conflict on design	Negligible	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	PMDFC
Construction Phase							
Dismantling, Excavation fine aggregate, base coarse and cleaning & grabbing)	**a) Land Use:** • The current land use is residential cum commercial with shops, houses and commercial structures including schools on	High	• Excavated material will be disposed within 24 hours at the designated place of MC Okara. • 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.	Contractor	Visual/ Photographic record, Public consultation, Environment Quality Analysis reports, GRM	• Daily site visit during construction phase • Fortnightly/ Weekly	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
	one side and canal on other side of the road. **b) 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 **c) Social Issues:** • Excavated material may cause		• Removal of excess matter/ debris from the site within 24 hours. • Provide PPEs (See Annexure vi). • Provide appropriate signage near the construction activities to sensitize the communities and minimize accidents. • During construction EHS SOPs for labor/worker will be followed. • 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. • Traffic controllers will be placed at strategic locations to control traffic and ensure safety of pedestrians		Complaints record		

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
	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 • 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		• Safety/ caution sign boards and reflective tape will be installed at site during work. • Construction work will be scheduled in parts and at night hours in such a way that business of the shopkeepers and schools located along the roads will not be affected. • 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 (tough paver ramps of three schools will be partially affected which will be compensated as per market rate and				

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
	• Noise pollution		one electric pole will be relocated) and in case of damage compensation will be provided as per entitlements. • If there will be any PCR found during excavation; Contractor will follow guidelines (Annexure vii) 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 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.	Medium to negligible	• Construction material will be covered to ensure safe passage between the destinations during transportation. • Materials will not be loaded to a higher level than the side and tail boards and shall be covered with a good quality tarpaulin;	Contractor	Visual/ Pictures	• Daily site visit during construction phase • Fortnightly/ Weekly	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
	• Poor Housekeeping **Social Issues:** • Land acquisition for storage of construction material • Accidents/Injuries expected if neglected • Blockage of passage for pedestrians • Haphazard arrangement of construction material		• 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/voluntarily. Contractor will submit satisfactory handing over certificate from land owner verified by DPO-ESS to the supervision consultant • Contractor will lay/ utilize construction materials as per work requirement from his storage site. • Contractor will use night vision reflective signboards/ reflective tapes to cordon off the area during construction activities.				
Labor Camp to be established by the contractor at	• Health impacts due to absence of housing and sanitation facilities in labor camp.	Medium	• Contractor will prepare Occupational Health and Safety Plan and get approval from MC before the execution of work.	Contractor	Visual/ Pictures	• Daily site visit during construction phase	• ESFPs • DPO ESM

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
MC owned land	• Security of labor • Unhygienic conditions		• For the execution of this sub-project, 10/15 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 (Annex-iii), implementation), to prefer the local labor to be engaged. Anyhow, for temporary labor site, following mitigation measures will be provided • Contractor will ensure provision of appropriate housing, water supply, and sanitation facilities to construction labor if they will be hired from outstation. • 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.			• Fortnightly/ Weekly	• Supervision Consultants E&S team

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
			• Accommodation will be ensured by the Contractor. • It's better to accommodate labor in Containers Camp/houses with all amenities. • Contractor will submit Campsite Management Plan and get approval from MC with the insight of DPO-ESM before the execution of work.				
Vehicle Movements	• Traffic congestion • Conflicts • Vehicle emissions	High	• Contractor will prepare Traffic management plan and get approval from MC Okara before the execution of work. • Sign 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. • Work will be done in portions so that the half portion of road may be used safely and vehicles movement will not be disturbed.	Contractor	Visual/ Pictures, Vehicle emission tests reports, GRM Complaints record	• Daily site visit during construction phase • Fortnightly/ Weekly	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
			• Vehicle emissions testing will be ensured (Hand platter, Compactor) once during execution of work • Contractor will follow WB EHSGs for construction and labor camp management.				
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/ Weekly	• ESFPs • DPO ESM • Supervision Consultants E&S team
Public access	Problems for pedestrians. Normal mode of transport may be disturbed during sub-project execution. 05 schools exist within 100m of the Canal road. There will be impediment in the movement of local community during school working 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 work in which heavy machinery may hinder the public accessibility	Contractor	No hindrance in the community movement. Visual/ Pictures	• Daily site visit during construction phase • Fortnightly/ Weekly • Once during the construction phase	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
			• Implement a proper traffic management plan. • Schools' administration will be informed by the contractor regarding schedule of execution of work. as per their convenience the work will be carried out to avoid maximum disturbance in accessibility to students and teachers.				
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/ Weekly	• ESFPs • DPO ESM • Supervision Consultants E&S team

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
			• Careful monitoring will also be carried out.				
Street Lights	○ Fall from height ○ Falling objects ○ Use of improper working platform ○ Misuse of working platform ○ Incompetent people hired for work ○ Injuries and deaths ○ Improper fall protection usage ○ Working near the overhead power lines ○ Falling through openings/ from edges ○ Working in rough weather ○ Incomplete access/exit • Unauthorized entries		• SOPs of Work at Height provided in the PMDFC SOPs for labor/construction workers will be strictly followed • Provide proper work at height platforms, and equipment to perform the job. • Area around the work at height should be barricaded, and safety signs should be posted. • Competent and well-trained workers should be hired for the job performance. • The work platforms should be inspected, maintained, and installed by the competent people. • All the openings in the work at height platforms should be covered, and edges should be barricaded using the guard rails. • Toe boards should be installed to prevent the rolling objects fall from height.		Site pictures	• At the time of installation	• MC • Regional office PMDFC • Supervision consultants

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
			• Safety nets, air bags should be provided and placed at worksite. • Workers should be provided with the personal fall arrest system/pfas to use, harness should be able to hold 2,268kg (5,000 lbs) of weight. • Lifeline should be installed to anchor the harness. • At least maintain 10ft distance from the overhead power lines when working at height. • Stop the job when weather is inclement, and high winds are blowing. • Workers should be provided with the proper access/exit arrangements. • Work area should be barricaded to prevent the unauthorized people entry				
Laying of coarse base, gravel, sub base	• Injuries to workers	High	• Contractor will provide Safety Shoes, Hand Gloves, Safety Helmet, and Reflective Vest to all the labor.	Contractor	Visual/ Pictures	• Daily site visit during construction phase	• ESFPs • DPO ESM

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
						• Fortnightly/ Weekly	• Supervision Consultants E&S team
Damage to Public Infrastructure/ utilities	• Accidents/Incidents/ Injuries • Structural loss: • Social Conflicts	High	• Contractor will ensure no damage to public utilities or structures. • Contractor will provide compensation for the damages to entitles accordingly	Contractor	Visual/ Pictures/payment record	• Daily site visit during construction phase • Fortnightly/ Weekly	• 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 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	Contractor	Visual/ Pictures/Reported/Complains by public during visit	• Daily site visit during construction phase • Fortnightly/Weekly	• ESFPs • DPO ESM • Supervision Consultants E&S team
CoViD-19 SOPs implementation	• Spread of COVID 19 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/ Weekly	• ESFPs • DPO ESM • Supervision Consultants E&S team
	Operational Phase						

Proposed Sub-project activities	Potential Env. / Soc. Impacts	Magnitude of Impact	Mitigation Measures	Mitigation Implementation Responsibility	Monitoring Indicators	Monitoring Frequency	Monitoring Responsibility
Road Maintenance- Road Furniture Solid Waste Management	• Accidents • Complains	Low	• MC will maintain road lighting system for night vision. • Road surface will be repaired/maintained by MC. • MC will organize solid waste collection system and run an effective BCC campaign to make the streets and roads clean	Contractor	Visual/ Pictures		• MC Officials

6.8. Capacity Building

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

Table 9: Training/ Awareness and Sensitization Plan

Components	Audience	Level	Modality	Frequency	Responsibility
ESMF Site Specific requirements and E&S Management and Mitigation Plan	MO-I & S MO-P and MC field staff[19]	Training	Briefing Presentations Mock Activities	Before execution of sub-project and time to time instructions	CSC
ESMP Implementation and Monitoring Plan	MO-1 MO-P MC field staff	Training	Briefing Presentations Mock Activities	Before execution of sub-project	CSC
	Contractor	Awareness and sensitization	Briefing	At the time of Contract signing and before execution	CSC
	Labor	Awareness and sensitization	Briefing	Before execution and time to time during execution	CSC
EHS SOPs for Labor/Workers (including women workers)	Contractor	Awareness and sensitization	Briefing and Illustrations	Before execution and time to time during execution	CSC
	Labor/ workers	Awareness and sensitization on SOPs Training on Use of PPEs	Presentations Illustrations Mock activities Resource material	Before execution and time to time during execution	CSC
GRM	Contractor	Awareness and sensitization	Briefing	Before execution and time to time during execution	CSC

[19] 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	Responsibil-ity
	Labor/ workers	Aware-ness and sensitiza-tion	Briefing and resource material	Before exe-cution and time to time during exe-cution	CSC
	Public/ communi-ties	Aware-ness	Briefing dur-ing public consultation Resource material	Before and during exe-cution	CSC

Table 10: IEE Implementation Budget

Item	Quantity	Tentative Cost/Item- Rs. /-	Total Cost
A-PPEs			
Face Masks (3 PLY) - box	50	300	15000
Safety Hard Helmets	20	3,000	60000
Safety Shoes	20	3,000	60000
Hand Gloves	20	1,000	20000
Ear Plugs	20	500	10000
Reflective Safety Vest	20	1,000	20000
Safety Goggles	20	500	10000
B-Community Health and Safety			
First Aid Box Complete	1	10,000	10000
Infrared Thermometer (Benetech GM-2200 or equivalent)	1	40,000	40000
Safety Signs	4	15,000	60000
Safety Cones	24	1,000	24000
Safety Tapes	50	1,500	75000
Portable Delineator with chain	10	2,200	22000
Emergency Portable Lights	5	3,000	15000
Solid Waste Collection Drums with Cover	3	12,000	36000
Fire Fighting Equipment Purchase and refilling	2	10,000	20000
Hiring of Environmental Specialist (for 03 months)	3	70,000	210000
Pole Hanging Waste Bins	5	12,000	60000
Labor Campsite Manage-ment	Lump sum		150,000
Water Sprinkling	Lump sum		100,000
Social and Behavior Change Campaign	Lump sum		100,000
C- Environment Quality Testing			
Ambient Air Quality-one sample during construction and one after construction	2	85000	170000
Noise Quality-one sample during construction and one after construction	2	1000	2000
Water Quality-one sample from road during construc-tion and one sample after construction	2	22000	44000
Total (PKR)-A+B+C			**1,333,000/-**

Section-7 Stakeholder Consultation

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

7.1. General

This section describes the outcomes of the public consultation sessions held within MC Okara about the proposed sub-project area. The objectives of this process were to:

- Share information with stakeholders on the widening 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 Okara 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:

- Local communities who are the direct beneficiaries of the project interventions and therefore identified as the primary stakeholders
- Institutions who have an important role in enabling the realization of the project interventions and therefore identified as the secondary stakeholders.

7.2. Public Consultation

For public information/ consultation, visits were made in the proposed sub-project areas to record the concerns of communities regarding sub-project activities. Methodology used for selection of interviewee was Random Sampling/ Focus Group Discussion. Table 11 depicts the concerns of the Institutional and community representatives and the replies from the consultant team. The pictorial records of Institutional and community consultations are given in Figures below. The list of persons consulted is attached as Annex-v.

Table 11: Stakeholders Consultation			
A-Government Stakeholders			
Sr. No.	**Designation and Department**	**Concerns/Feedback/ Suggestions**	**Responses**
1.	Mr. Zahid Iqbal Additional Deputy Commissioner (General)	Asked about any resource material/broacher on the sub-project prepared? If so, send a copy	Project brief has been prepared by Punjab Municipal Development Finance Company (PMDFC) and will be provided to the stakeholders in due course
2.	Mr. Zaheer Liaqat Baig, Administrator MC Okara	Asked about: • removal of electric poles and transformers from the roads. • He also inquired about the cutting of trees • He commented that the green belts of roads should not be decreased. • He was fully agreed with the construction of road and briefed that it is a dire need to take urgent initiatives accordance with the available space.	It was informed that the electric poles will be removed by Lahore Electric Supply Company (LESCO) for which Demand Notice has been received. About tree cutting, he was informed that no tree cutting will be involved in this project and existing trees will be conserved by providing tuff pavement along their side. Moreover, in case if tree cutting involved,10 trees will be planted for every cut/uprooted tree.
3.	Mr. Muhammad Nasim Chief Officer-MC Okara	He has positive response to the subproject. He commented that the sub-project may be executed at the earliest as per need of the citizens.	Well appreciated his views.
4.	Ahsan Bilal Circle Head Draftsman LESCO	He was briefed about the shifting of electricity poles. He enquired about the shifting cost of the electric poles as per the Demand Notice.	He was informant that demand notice has been received and payment to LESCO being arranged by the MC Okara.

5.	Mr. Sarfraz Ali Sub Divisional Officer Irrigation Department, Okara office	He has no issue about the roads construction but has concern about disposal of excavated material in the Lower Bari Doab Canal and 4.L Distributary.	He was informed that the excavated material be disposed off withing 24 hours after excavation at the site designated by the MC and implementation of Environmental and Social Management and Monitoring Plan will be included in the scope of work of the contractor to avoid all such environmental issues.
6.	Mr. Javaid Suleman Assistant Forest	He asked that whether any forest tree will be cut/uprooted. In doing so replenishment cost has to be paid to the Forest Department prior to execution of the subproject. He provided a copy of SOPs for cutting of forest trees to the survey team.	He was informed that No forest tree will be cut/uprooted in this project. All the existing trees will be conserved by providing the tuff pavement along their side and in case if any tree has to be cut then it will be restored with 1:10 ratio in the nearby vicinity.
B-Consultation with Affected Persons			
Sr. No.		**Concerns/Feedback/ Suggestions**	**Responses**
1.	Arshad Ali S/O Niaz Muhammad Principal Allied School	He was informed that tuff pavement of 91 Sq. ft will have to be dismantled due to widening of the road from the edge of road which comes under ROW of MC Okara Anyhow, school owner will be paid the compensation cost in lieu of loss of this structure He showed his consent on it and refused to take any compensation cost as school's pavement was constructed at MC owned ROW which they may take at any time.	He was responded that this project is financed by WB and as per the policy of WB, they will be paid with compensation due to loss of their structure and this payment will be made by MC Okara before execution of the work.

2.	Hafiz Kashif S/O Muhammad Idrees Principal The Knowledge School	He was briefed about the project activities and was informed that tuff pavement of 200 Sq. ft will have to be dismantled due to widening of the road which comes under ROW of MC Okara Anyhow, school owner will be paid the compensation cost in lieu of loss of this structure He showed his consent on it and appreciated that no such consultation and compensation system exists in the previous projects executed by the MC School staff showed their concern about impediment in movement of students at school coming and going times	School staff was informed that temporary impediment in the mobility of students/teachers and parents will be handled very carefully and contractor will be instructed to work in parts and avoid working in school hours and complete the construction work outside the schools side on schools holidays
3.	Rawzan Ahmad S/O Muhammad Rafiq Principal Dar-e-Arqam School	He was briefed about the project activities and was informed that outside their school, tuff pavement of 400 Sq. ft will have to be dismantled due to widening of the road as it comes under ROW of MC Okara Anyhow, school owner will be paid the compensation cost in lieu of loss of structure He expressed his consent on it and thanked about providing him this information timely.	
C- Consultation with Local Communities			
Concerns/Feedback/Suggestions			**Responses**
1	Mr. Muhammad Tufail Principal Savvy School He was informed about the project activities and temporary environmental and social impacts in terms of noise and impediment in mobility during construction works Principal and his staff supported the subproject.		Appreciated their support
2.	The residents showed their concern about the existing bad and narrow condition of road and asked for urgent widening.		The project team said that this project would be completed on priority basis.

3.	There is dire need to establish a supervision committee to monitor the construction works of road to ensure quality at site	The team briefed that all construction works will be monitored by MC itself as well as PMDFC representative and team of supervision consultants. Quality will be ensured at every stage.
4.	The provision of speed breakers should be added particularly near schools while designing road to avoid over speeding and ensure safety of school children	The team answered that this provision of speed breakers close to schools will be considered while designing road.
5.	Fence and foot path must be added in the scope of work towards canal side	The team answered that this suggestion will be communicated to design team.
6.	The local people suggested that there should be least involvement of political leaders in this project and should only focus need of local residents and common user of road.	Acknowledged by the consultants and replied they recognize the dire need of the local people and will fulfill the needs accordingly.
7.	There is a heavy load of traffic on this road, how it will be managed during construction?	Acknowledged, the contractor will prepare Traffic Management Plan before the start of construction activities and shall implement during execution. Consultant and PMDFC staff will monitor its implementation throughout the project duration.
8.	Speed breakers should be designed according to prescribed standards to avoid damage to vehicles and unnecessary speed breakers should be avoided.	Acknowledged, all speed breakers will be designed as per specifications and need based.
9.	The road along the right bank of canal should also be improved along with this project	This project is for the improvement of left bank of canal road, but this suggestion will be communicated to concerned authorities as a prospect for future development needs.
10	The trees on this road should not be cut while widening of road	The team ensured to the community that no tree will be cut or uprooted.

D-Consultation with Mobile Vendors	
Concerns/ Feedback / Suggestions	**Response**
03 mobile vendors present outside the schools were consulted and informed about the project activities. They informed that they visit here only at the time of school closing hours and temporary relocation to the other side of the road will not affect their income.	Contractor will be instructed to work at the schools portion of road in holidays or when school hours are closed so that mobile vendors may not affect by any means
01 fruit kiosk was consulted and informed that due to construction activity, he will have to be relocated to the other side of the same road for 01 to 02 weeks only. He showed his consent on it and told that it will not affect his daily income	MOI&S of Okara was sensitized about it

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<tr><td>Consultation with Administrator MC Okara</td><td>Consultation with Executive Engineer-LESCO</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Consultation with Sub-Divisional Officer, Irrigation Department</td><td>Consultation with Superintendent Forest Department</td></tr>
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Figure 7 Pictorial view of Institutional Consultations

Figure 8: Pictorial view of Public Consultation

7.3. Capacity Building and Training Program

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

Table 12: Training / Awareness and Sensitization Plan

Components	Audience	Level	Modality	Frequency	Responsi-bility
ESMF Site Specific re-quirements and E&S	MO-1	Training	Briefing Presentations Mock Activities	Before execution of sub-project and time to time in-structions	PMDFC ESM team

Management and Mitigation Plan	MO-P and MC field staff[20]				
ESMP Implementation and Monitoring Plan	MO-1 MO-P MC field staff	Training	Briefing Presentations Mock Activities		
	Contractor	Awareness and sensitization	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/ workers	Awareness 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
	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

7.4.

[20] 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

Section-8 GRIEVAENCE REDRESS MECHANISM (GRM)

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.

8.1. 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, E&S expert of supervision consultant team will act as focal person of GRC who may be contacted at site and his contact details will be provided at project site.

8.2. GRIEVANCE REDRESS COMMITTEE (GRC)- MC Okara

ESFPs of MC Okara will be focal persons and responsible for handling the GRM at MC level

8.3. GRC AT ADMINISTRATIVE LEVEL

Administrative of each MC will chair the GRC at Administrative level

8.3.1. Types of Grievances

The following are some of the environmental and social issues could be subject for grievance from the affected people.

Environmental Issues	Social Issues	EHS Issues
• Noise Pollution • Air Pollution • Fugitive Dust • Water Pollution • Solid Waste Management • House Keeping • Cutting of Trees • Borrow Areas Management • Protection of Wildlife • Campsite Management	• Accidental Insurance for labor • Non-Provision of PPEs to labor as per nature of their jobs • Loss of any public infrastructure • Protection of sensitive receptors • Compensation for any economic losses • Traffic Management • Labor grievance redressal • Gender discrimination • Security Arrangements • Impacts on livelihood • Irregular Traffic Movement • Obstruction in access • Intensive schedule of construction activities • Child Labor • Unsafe conditions for the community (Community Health and Safety, CHS)	• First Aid • Fire Safety • Workplace Safety • Tools Box Talks • Provision of PPEs • Work at Height Safety • Excavation Safety • Heavy Machinery Issues

Section-9 CONCLUSION AND RECOMMENDATIONS

9.1. CONCLUSION

The present report presents the Initial Environmental Examination (IEE) of the Improvement, Widening and Raising of Road from Tank Chowk to Akbar Chowk along Canal Road. During the preparation of IEE report for the proposed developmental project, it is observed and established that the negative environmental impacts are temporary and low to moderate nature. No depletion, deterioration or exploitation of local natural resources is expected to be caused by the proposed project activities. It is accordingly recommended that the Environmental Approval for the project may be issued by the Punjab Environmental Protection Agency, subjected to the payment of requisite scrutiny fee by the proponent of the project. The project does not pose any serious negative environmental impacts. Adequate mitigation measures have been proposed to address negative impacts arising from the project.

9.2. RECOMMENDATIONS

The Initial Environmental Examination (IEE) as well as survey results are finally evaluated to recommend the following:

- Adherence to the Environmental Management Plan (EMP) as proposed in this report is mandatory.
- During the construction phase of this project, all the required PPEs should be provided to the workers.
- Proper housekeeping in and around the site must be given consideration.
- The fire safety precautions must be considered to prevent or reduce the likelihood of fire. Placing and maintaining fire extinguishers at easily accessible points is highly recommended.
- Proper indication of exit points must be there for emergency situation.
- Proper safety and information sign boards must be placed at required places.
- Adequate training of workers must be done to deal with the emergency situations

Annexure i: Environment & Social Screening Checklists

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 document[2] 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

Name of ESFP: Hafiz Talat MOI Shoaib Sheikh MOP

Name of MC: Okara

Sub-Project Sector: Roads

Sub-Project Title: Improvement of Road from Tank Chowk to Akbar Chowk along Canal Road 1.88 km

Sub- Project Categorization: E-1 S-2

Date of Screening: 01.11.2022

Estimated Cost of Subproject: 98.33 Million
ESMMP of IEE Implementation Cost: PKR1,333,000/-
Tentative Completion Time/ Duration: 6 Months
Estimated Labor for Subproject: 10-15

[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	Remarks
A. Project Siting Is the Sub-Project area adjacent to or within any of the following:			
Environmentally sensitive areas?			
Legally protected Area		✓	No legally protected areas i.e. wildlife sanctuary, national park or game reserve exist within or near the project area
Any surface water body (river, canal, stream, lake, wetland) within 250 meter of the proposed sub project[3]	✓		A canal is flowing at right side along the road and surface water may be affected if solid waste or excavated material may be disposed off into it during project activities. Due to removal of existing road surface containing bitumen if not disposed of properly along with other debris may pollute canal water. All the construction waste shall be removed within 24 hours to a MC designated site to avoid contamination and contractor will be instructed to sensitize the labor/construction workers to avoid throwing any trash/ garbage in the water body
Estuarine		✓	No estuarine within or near the project area
Special area for protecting biodiversity		✓	No ecological significant habitat exists within or near the project area
Buffer zone of protected area		✓	No protected area exists in the vicinity of the subproject area
Mangroves Forest		✓	No mangrove forest is located near the project area
Man-made forest /game reserve, orchid/ crops or any other area of environmental importance	✓		There are 53 mature trees on both sides of canal road but no tree will be required to cut or uprooted as vacant space is available for the widening and raising of road and where trees are present, they will be conserved by tuff pavement along their surface.
Socially sensitive /important areas/communities/ people?			

PCRs and or any site of cultural/ religious importance (Graveyard, Shrine, Mosque, Church, *Gordwarah*, Temple, Fort, archeological/ historical site) within		✓	No PCR was noted within or near the subproject area
Sensitive receptors (Schools, colleges, hospitals and clinics) within 100 meter of the proposed sub project[5]	✓		There are 05 schools along the entire stretch of road, where educational activities may be affected due to traffic hinderance during the construction. Ramps of three schools (Allied School, The Knowledge school and Dar-e-Arqam) will be partially affected due to widening of road. It will be advised to implement traffic management plan during construction and ensure safety of children by applying SOPs related to construction safety while executing activities near schools. Further it will be required to monitor noise levels of machinery and equipment to keep them within safe limits.
Any graveyard of local community (Muslims or Christians)		✓	No graveyard
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)?		✓	No vulnerable group exists within the sub-project area
Already existing infrastructure[7] (including public amenities) which may be required to dismantle or may be affected temporarily by any means?	✓		The ramps, tough paver ramps of 03 schools will have to be dismantled. Further, 01 electric pole will also have to be relocated. A separate ARAP will be developed for compensation of Affected Persons.
B. Potential Environmental Impacts Will the Sub-Project cause…			
1. Disturbance to habitats/ biodiversity of environmentally sensitive or protected areas?		✓	No sensitive habitats or protected area exist in the subproject area

2. Cutting of trees?		✓	There are 53 mature trees on both sides of canal road but no tree will be required to cut or uprooted.
3. Disruption to habitats/ biodiversity of surrounding ecosystem/ environment?		✓	Cutting of trees can disturb the associated fauna.
4. Generation of wastewater during construction or operation?		✓	No separate establishment of contractor's camp is anticipated so no waste water would be generated during construction
5. Pollution of surface water/ground water due to wastewater discharge from construction site or due to direct/indirect disposal of waste water?		✓	No waste water will be generated due to subproject interventions
6. Alteration of surface water hydrology of waterways resulting in increased sediment in streams/ rivers or due to increased soil erosion at construction site?		✓	No alteration of surface water hydrology due to subproject interventions
7. Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camp and chemicals used in construction?		✓	No deterioration of surface water quality due to subproject interventions
8. Over pumping of ground water, leading to salinization and ground subsidence?		✓	No over pumping of groundwater will be required for the subproject
9. Serious contamination of soil due to construction works?	✓		Due to use of chemicals (asphalt, oil/ fuel) and movement of project machinery there are chances of soil contamination which will be mitigated by avoiding spill of oil/ fuel and safe use of coal tar to avoid soil contamination
10. Aggravation of solid waste problems in the area?	✓		Due to widening of existing road there are chances of aggravation of construction waste in the project area, which may cause hindrance in the movement of local people. All generated waste will be required to be removed daily to an environmentally safe waste dumping site immediately

11. Generation of hazardous waste?		✓	Bitumen mixed solid waste will be generated as a result of dismantling of road that would be harmful if not properly disposed of. The excavated materials would be disposed of as per approval of the supervision engineer
12. Increasedair pollution due to sub-project construction and operation?	✓		Due to project interventions, it is anticipated that ambient air of the project area may be temporarily affected due to dust emissions and smoke generated from project vehicles and machinery. Water sprinkling will be required to be done periodically on daily basis and contractor will have to keep his machinery and equipment well-tuned to avoid smoke emissions
13. Noise and vibration due to sub-project construction or operation?	✓		Noise produced from machinery operating at project site may cause disturbance to residents and workers. Contractor will be required to use new machinery to avoid noise emissions. Contractor will provide ear plugs/ muffs to workers near noise producing machinery and shall monitor noise levels periodically throughout the day during construction works.
14. Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents due to solid/liquid?		✓	No temporary breeding habitats will be developed due to sub project interventions
15. Use of chemicals during construction?	✓		Due to use of chemicals (asphalt, oil/ fuel) and movement of project machinery there are chances of soil contamination which will be mitigated by avoiding spill of oil/ fuel and safe use of coal tar to avoid soil contamination
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)?		✓	There will be no damages to Physical Cultural Resources (PCRs)

2. Displacement or involuntary resettlement of people? (physical displacement and/ or economic displacement) (If "Yes", please also fill Involuntary Resettlement Screening Checklist)	✓		The tough paver ramps of 03 schools will have to be dismantled. Further 01 electric pole will also have to be relocated.
3. Disproportionate impacts on the poor, women and children and or other vulnerable groups 8(mentioned above)?		✓	There will be no disproportionate impacts on the poor, women and children and or other vulnerable groups due to subproject interventions.
4. Temporary impedimentsin movements of people/ transport and animals?	✓		Due to project interventions, there will be temporary impediment in the movement of local people which will be managed by working in patches so as to provide alternate passage way on other side and dump construction in a way that does not interfere with the commutation of local community and passersby. Traffic Management Plan approved by the MC will be inserted at the prominent place to avoid hinderance in the mobility of vehicles
5. Large population influx during subproject construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		✓	There will be no population influx during sub-project execution
6. Social conflicts if workers from other areas are hired?		✓	Local workers will be hired.
7. Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?	✓		Workers will be provided PPEs, and trainings will be imparted to them regarding their use. Site related OHS guidelines shall be displayed at site and will be implemented by the contractor and supervision consultant will monitor its implementation at site
8. Risks to community cost due to the transport, storage, and use and/ or disposal of materials such as explosives, fuel and other chemicals during construction and operation?	✓		Construction material will be transported to site while covered with tarpaulin to avoid impact on community. Oil/ fuel will be transferred safely at a workshop or fuel station to avoid risk.

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 where their failure could result in injury to the community throughout project construction, operation and decommissioning?	✓		Entrance to working site will be restricted by installing barricade tape. Safety/ caution sign boards will be erected and flag men will be appointed to control traffic and keep irrelevant persons away from project site
10. Any impact on sensitive receptors (mentioned above)	✓		There are 5 schools along the entire stretch of road, where educational activities may be affected due to project interventions. It will be advised to implement traffic management plan during construction and ensure safety of children by applying SOPs related to construction safety while executing activities near schools. Further it will be required to monitor noise levels of machinery and equipment to keep them within safe limits
11. Any impact of negative nature on already existing infrastructure including public amenities	✓		The tough paver ramps of 03 schools will have to be dismantled. Further, 01 electric pole will also have to be relocated.

Prepared By: **Name: Dr. Ashraf Bodla** **Designation: Chief Environmentalist MMP** **Signature:** **Date:**	**Endorsed By:** **Name: Hafiz Tallat** **Designation: MOI&S** **Signature:** **Date:**
Reviewed By: **Name:** **Designation:** **Signature:** **Date:**	

INVOLUNTARY RESETTLEMENT SCREENING CHECKLIST

Name of City/MC/LG: Shoib Sheikh MOP Add charge

Sub-Project Sector: Road

Sub-Project Title: Improvement of Road from Tank Chowk to Akbar Chowk, Okara (Canal Road)

Sub- Project Categorization: S-2

Date of Screening: 01-11-2022

SECTION-1	Yes	No	Expected	Remarks
Does the project require land acquisition? Yes/No		✓		Existing RoW of the road will be used for road widening
If yes, then describe the type of land being acquired from thecategories below:		✓		No land acquired for this sub project
Has any AED been conducted at the proposed location by thegovernment[1]? Yes/No		✓		No AED been carried out at the proposed location as also confirmed by local community 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)	✓			Road already exists and land is owned by the local government
Government or state-owned land (other than LG) free ofoccupation (agriculture or settlement)		✓		No land acquired for this sub project
Private land		✓		No land acquired for this sub project
Residential		✓		No land acquired for this sub project
Commercial		✓		No land acquired for this sub project
Agricultural		✓		No land acquired for this sub project
Communal		✓		No land acquired for this sub project
Others (specify in "remarks").		✓		Road already exists and land is owned by the local

SECTION-1	Yes	No	Ex-pected	Remarks
				government
Name of owner/owners and type of ownership document ifavailable.		✓		Road already exists and land is owned by the local government
If land is being acquired, describe any structures constructedon it		✓		No land acquired for this sub project
Land-based assets:		✓		No land base assets exist within RoW of road
Residential structures		✓		No residential structure exists within RoW of the road
Commercial structures (specify in “remarks”)		✓		No commercial structures are extended within RoW of the road
Community structures (specify in “remarks”)		✓		No community structures exist within RoW of the road
Agriculture structures (specify in “remarks”)		✓		No agriculture land exists within RoW of the road
Public utilities (specify in “remarks”)	✓			Some portions of the road will remain closed for public use
Others (specify in “remarks”)				-
If agricultural land is being acquired, specify the following:				-
Agriculture related impacts				-
Crops and vegetables (specify types and cropping area in“remarks).		✓		No agriculture land acquired for this sub project
Trees (specify number and types in “remarks”).			✓	53 mature trees of shashum, bakain, keekar and Sufaida etc. are growing within the RoW but outside of COI. No tree cutting is involved.
Others (specify in “remarks”).		✓		No land acquired for this sub project
Affected Persons (APs)	✓			03 persons will be affected during the implementation of Sub Project
Will any people be displaced from the land when acquired?Yes/No		✓		No land acquired for this sub project One mobile vendor and 3

SECTION-1	Yes	No	Expected	Remarks
				fruit kiosks would be temporarily relocated on the other side of the road. Public consultation was carried out with them and they showed their consent on it as on shifting towards the other bank of the same road, there will be no economic loss in terms of their daily selling.
Number of APs	✓			03 enterprises (schools) will be affected during the implementation of Subproject in terms of loss of their structures (ramps) and for their compensation, ARAP is developed
Males				-
Females				-
Titled landowners				-
Tenants and sharecroppers				-
Leaseholders				-
Agriculture wage laborers				-
Encroachers and squatters (specify in remarks column)	✓			The ramps/floors of 03 enterprises extended within RoW of the road which need to be demolished. For the compensation of 03 structures, ARAP is developed
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".		✓		Not involved in this project
Others (specify in "remarks")				-
How will people be affected?				Ramps, of the 03 schools will be affected for which ARAP is developed

Prepared By: **Name: Saqib Mehmood** **Designation: Social Safeguards Specialist MMP** **Signature:** **Date:**	**Endorsed By:** **Name: Shoaib Sheikh** **Designation: MOP** **Signature:** **Date:**
Reviewed By: **Name:** **Designation:** **Signature:** **Date:**	

Annexure ii: 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	• 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
B. Initial Screening	• All enlisted workforce should go through initial screening process • Ensuring the availability of Thermo gun 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 Screening	**Regular Screening:** • Regular screening by using Thermo gun on daily basis before starting civil work at site • Checking and recording temperatures of workers and other 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 hand washing 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

Activities	Adaptive Measures
	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/ Demobilization of staff	• 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 • 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. • All workers should be provided separate accommodation.
D. Training sessions	• 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.

Activities	Adaptive Measures
E. Operationalization of Grievance Redress Mechanism	• Effective implementation of GRM at site • Encouraging to report any COVID-19 related health issue and concerns about the health of their co-workers and other staff as well. • In case of unavailability of the PPEs at site, grievance would be lodged directly to PMU.
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 should be immediately reported to concerned health department.
B. Cleaning and waste disposal	• All waste (PPEs and sanitation related) shall be disposed properly at designated sites.

Annexure iii: List of Stakeholders Consulted

Sr.	Name	Designation	Department/Contact
Institution Consultation			
1.	Zahid Iqbal	Additional Deputy Commissioner (General)	District Administration 044 9200035
2.	Zaheer Liaqat Baig	Administrator	MC Okara 0301 4488600
3.	Muhammad Nasim	Chief Officer	MC Okara 0333 8402836
4.	Mr. Ali Raza	Sub-Engineer	MC Okara 0312 6062810
5.	Rana Irfan Ali Masood	Executive Engineer	LESCO
6.	Ahsan Bilal	Circle Head Draftsman	LESCO 0322 6990702
7.	Sarfraz Ali	Sub Divisional Officer	Irrigation 0345 7490533
8.	Javaid Suleman	Assistant	Forest 0345 7501415
9.	Rashid Ahmad	Head Clerk	Forest 0347 6744971
10.	Mahmood Ahmad	Sr. Clerk	Forest Department 0301 7336921
11.	Muhammad Tufail	Principal	Savvy School, Canal Road

Sr.	Name	Designation	Department/Contact
12.	Arshad Ali	Principal	Allied School, Canal Road 044 27067256
Communities Consultation			
Canal Road			
	Name	**Location**	**Contact No.**
1.	Muhammad Tufail	Canal Road	35302-1869660-5
2.	Muhammad Aizaz	Canal Road	--
3.	Ch. M. Siddique	Canal Road	--
4.	Zohaib Ahmad	Canal Road	03007095630
5.	M. Nadeem	Canal Road	03027346310
6.	Haji M. Rafique	Canal Road	03039972267
7.	Umar Rafique	Canal Road	03027192508
8.	Muhammad Usama	Canal Road	03226921008
9.	Ahmad Baloch	Canal Road	03007140730
10.	Haji Naeem	Canal Road	03137265099
11.	Sadiq Minhas	Canal Road	03347424662
12.	Ibrar Hussain	Canal Road	03226921008
13.	Muhammad Arsalan	Canal Road	03059591034
14.	Muhammad Shafiq	Canal Road	03004694073
15.	Muhammad Awais	Canal Road	03217097613
16.	Sarfraz Ali	Canal Road	03449112518
17.	Muhammad Arshad	Canal Road	03017561240

Annexure iv: Personal Protective Equipment According to Hazard[21]

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	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 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.

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

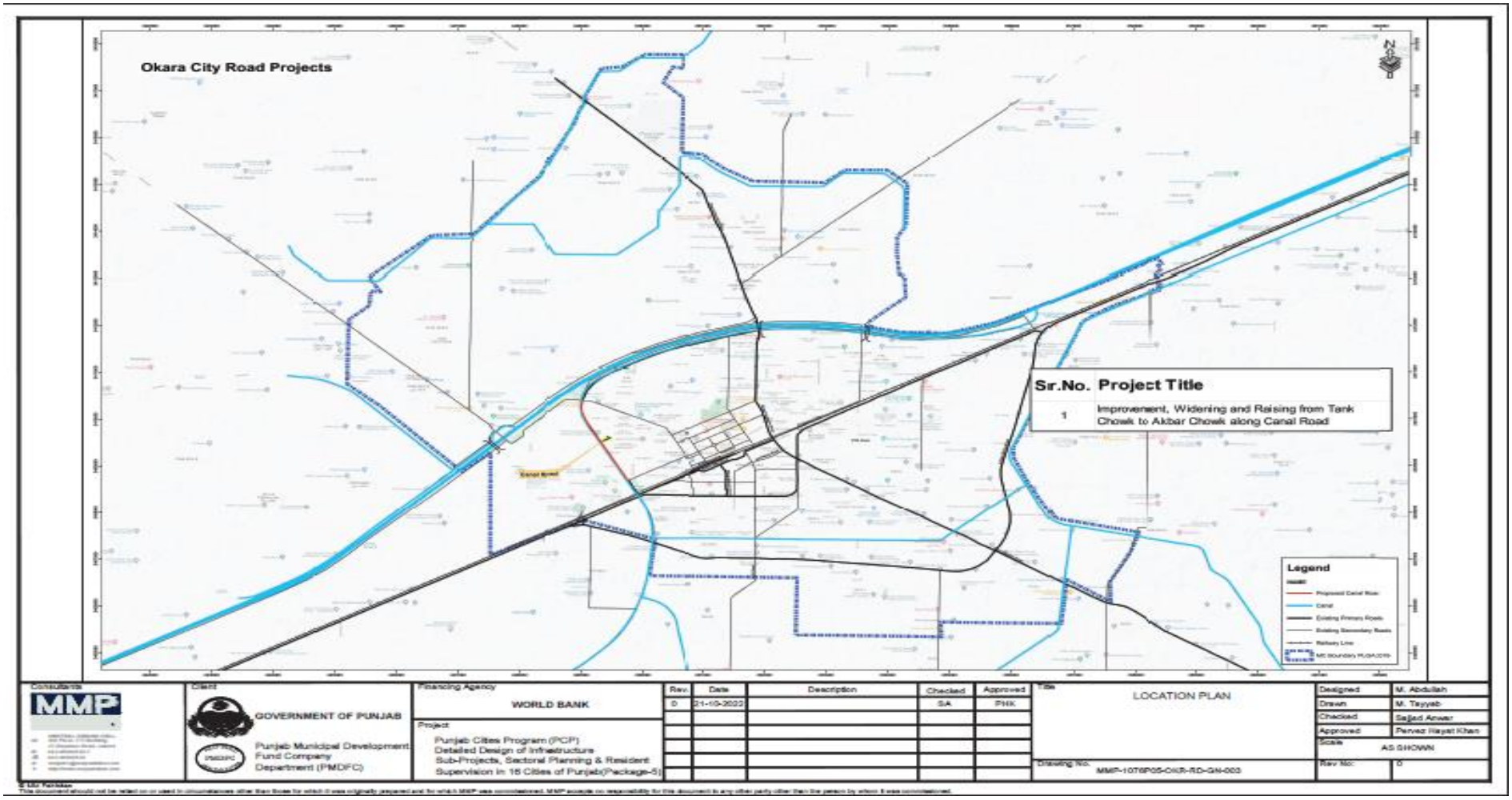
Annexure v: Chance Find Procedures

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

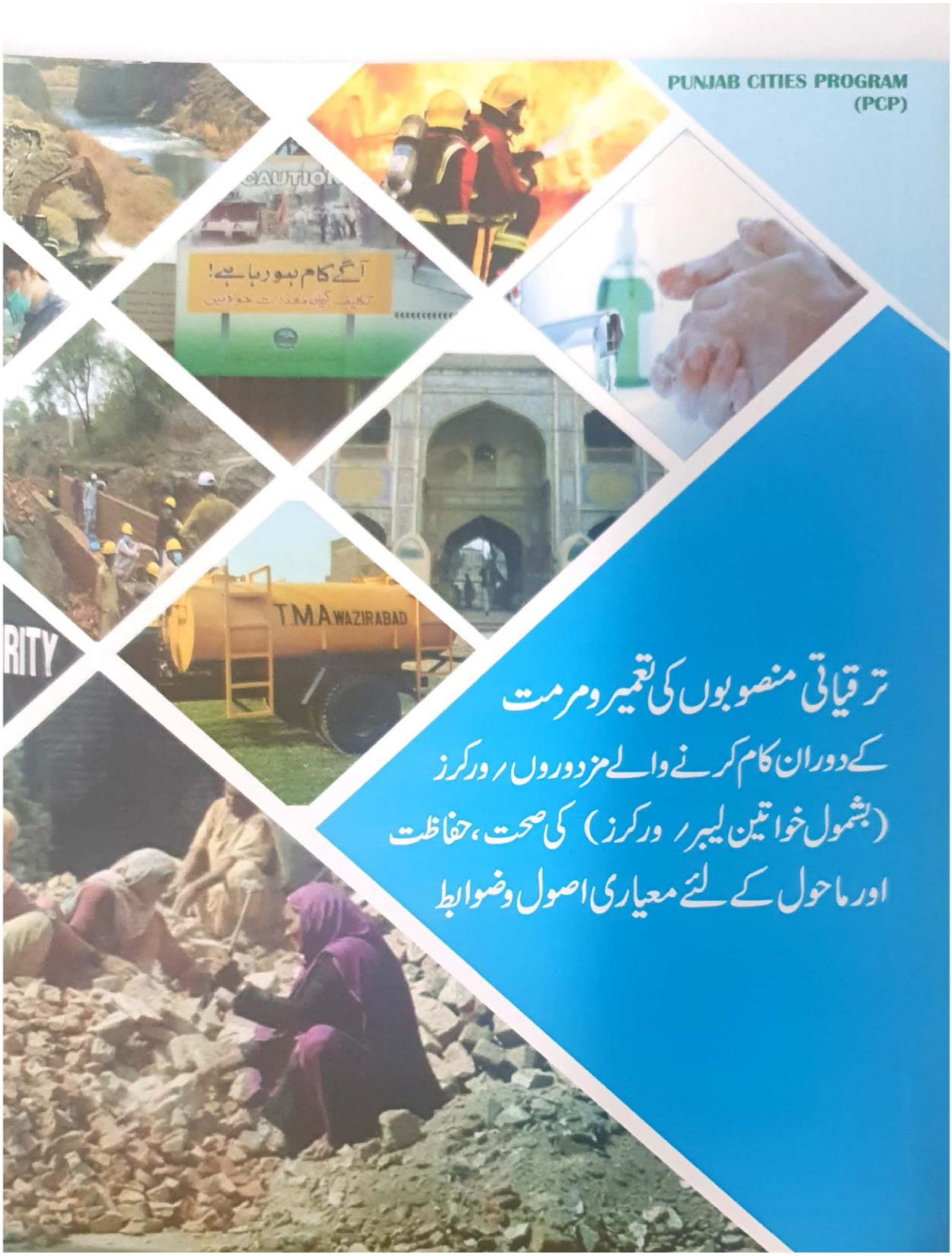
- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities 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.

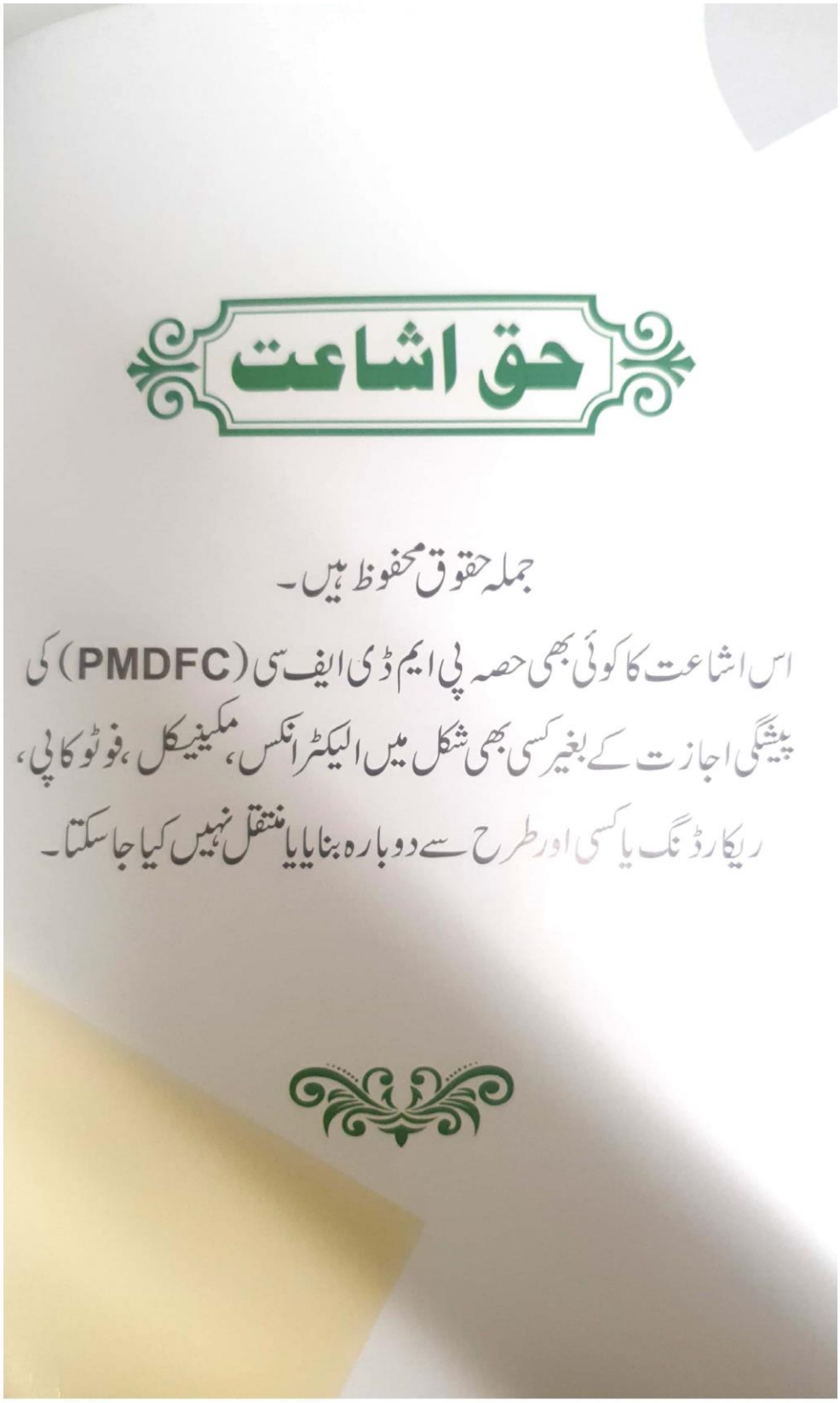
These procedures will be referred to as standard provisions in construction contracts, when applicable. During proj
ect supervision, the Site Engineer will monitor the above regulations relating to the treatment of any chance find encountered are observed.

Annexure vi: Canal Road Okara Location Map



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





پیش لفظ

لوکل گورنمنٹ اینڈ کمیونٹی ڈویلپمنٹ ڈیپارٹمنٹ اور پنجاب میونسپل ڈویلپمنٹ فنڈ کمپنی (PMDFC) نے ورلڈ بینک کے اشتراک سے پنجاب سیٹیز پروگرام (PCP) کا کامیابی سے اجرا کر دیا ہے. اس منصوبے کے تحت صوبہ پنجاب کے 16 چھوٹے شہروں (MCs) بشمول بہاولنگر، بوریوالا، خانیوال، کوٹ ادو، وہاڑی، گوجرہ، جھنگ، کمالیہ، اوکاڑا، ڈسکہ، حافظ آباد، جہلم، کاموکی، مریدکے اور ترقیاتی کاموں پر کامیابی سے کام جاری ہے۔ ان ترقیاتی منصوبوں میں ویسٹ مینجمنٹ، پانی کی فراہمی، نکاسی آب، سڑکوں کی مرمت، کمیونٹی پارکس کی بحالی اور قدرتی آفات کی روک تھام کے منصوبہ جات شامل ہیں۔

پنجاب سیٹیز پروگرام (PCP) کے منصوبہ جات کی تکمیل کے دوران سماجی اور ماحولیاتی مسائل کی جانچ پڑتال اور اس کے حل کے لئے انوائرنمنٹل اینڈ سوشل سیف گارڈز (ESSs) ٹیم نے انوائرنمنٹل اینڈ سوشل مینجمنٹ فریم ورک (ESMF) بنایا ہے. مختلف منصوبہ جات اسی فریم ورک کی رو سے پایہ تکمیل تک پہنچ رہے ہیں۔

تعمیراتی اور ترقیاتی کاموں کی تکمیل میں تعمیراتی جگہوں پر کام کرنے والے مزدوروں/لیبر (بشمول خواتین) کی صحت اور کام کرنے کے دوران حفاظت بہت اہمیت رکھتی ہے۔ اس اہم مسئلہ کو ملحوظِ خاطر رکھتے ہوئے، پی ایم ڈی ایف سی کے زیر اہتمام پنجاب سٹیز پروگرام کی انوائرنمنٹ اینڈ سوشل مینجمنٹ ٹیم نے **" ترقیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے مزدوروں، ورکرز (بشمول خواتین لیبر/ورکرز) کی صحت، حفاظت اور ماحول کیلئے بنیادی اصول وضوابط"** مرتب کے ہیں تا کہ متعلقہ میونسپل کمیٹیز/کارپوریشنز (MCs) کے عہدیداران اور ٹھیکیداران کو آگاہی فراہم کی جائے۔

اغراض و مقاصد

۱۔ مجوزہ معیاری اصول وضوابط پنجاب سیٹیز پروگرام (PCP) کے تحت پنجاب میونسپل ڈویلپمنٹ فنڈ کمپنی (PMDFC) کے ماہرین ماحولیات نے پروگرام ڈائریکٹر (PCP) اور ڈپٹی پروگرام ڈائریکٹر (PCP) کی زیرنگرانی تشکیل دیئے ہیں۔

۲۔ شہری ترقی کے ترقیاتی منصوبہ جات کی تعمیر ومرمت میں مزدور/ورکرز بنیادی کردار ادا کرتے ہیں۔ ان (SOPs) کا بنیادی مقصد مزدور/ورکرز (بشمول خواتین لیبر / ورکرز) کو تعمیراتی جگہوں (Constrcution sites) اور لیبر کیمپس میں ماحولیاتی اور سماجی تحفظ فراہم کرنا اور صحت، ماحولیات اور کسی خطرناک صورتحال سے بچنے کے لئے حفاظت فراہم کرنا ہے۔

۳۔ یہ SOPs (PCP) پنجاب سیٹیز پروگرام کے تحت 16 شہروں کی میونسپل کمیٹیز/کارپوریشنز میں تعمیر ومرمت کے تمام پراجیکٹس پر لاگو ہوں گے۔

۴۔ یہ SOPs مزدوروں/کام کرنے والوں/دیہاڑی دار (بشمول خواتین) پر بلاتخصیص لاگو ہوں گے۔

۵۔ ان SOPs کو موثر اور یقینی بنانے کے لیئے انھیں ٹھیکیداروں کے کنٹریکٹ کا حصہ بنانا اور ان پر عمل درآمد کرانا میونسپل کمیٹیز/کارپوریشنز کی ذمہ داری ہے۔ جسے پی ایم ڈی ایف سی کی متعلقہ پروگرام ٹیم یقینی بنائے گی۔

پیغام

پاکستان کی ترقی میں تعمیراتی کاموں کے دوران کام کرنے والا مزدور طبقہ نہایت اہمیت کا حامل ہے اور انکے صحت وتندرستی سے متعلق مسائل کا مؤثر حل انتہائی ضروری ہے۔ " ترقیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے مزدوروں / ورکرز (بشمول خواتین لیبر/ورکرز) کی صحت، حفاظت اور ماحول کیلئے بنیادی اصول وضوابط " کی اشاعت و ترویج اوران پر بروقت عمل درآمد بے حد ضروری ہے جس سے اس طبقے کے بنیادی حقوق کا تحفظ یقینی بنایا جا سکے گا اور اس طرح اس طبقے کی کارکردگی میں بھی بہتری نظر آئے گی۔ ان اصولوں کے تحت ہر ٹھیکیدار کو ورکرز کی صحت اور حفاظت کی ذمہ داری دی گئی ہے۔ مزدور تعمیراتی کاموں کے دوران خطرات کے مطابق ذاتی حفاظتی سامان بھی استعمال کریں گے جس سے دوران کام حادثات میں بھی نمایاں کمی نظر آئے گی۔ ماحولیات اور صحت کے اصولوں کو مدنظر رکھتے ہوئے ہر سطح پر ہم اس بات کو یقینی بنانے کی کوشش کریں گے کہ ہماری پالیسیاں اور طرز عمل فعال ہوں۔ ماحولیات، صحت اور حفاظت (EHS) کے اصولوں کو اپنانے میں کسی بھی قسم کا سمجھوتہ نہیں کیا جائے گا۔ میں امید کرتا ہوں کہ ان اصول وضوابط کی روشنی میں مزدور/ورکرز (بشمول خواتین لیبر) کے حقوق کی پاسداری کو ایک نیا رخ ملے گا اور حکومتی عہدیداران اور ٹھیکیداران بھی اپنی ذمہ داریوں کا احساس کریں گے۔ اوراس سلسلے میں پی ایم ڈی ایف سی اور پنجاب سیٹیز پروگرام کی انوائرنمنٹ اینڈ سوشل سیف گارڈز (ESSs) ٹیم بلاشبہ مبارکباد کی مستحق ہے اور یہ توقع کی جا سکتی ہے کہ وہ مستقبل میں ان قواعد وضوابط کی نگرانی کے لئے بھرپور اقدامات کریں گے۔

محمد عامر نذیر
پروگرام ڈائریکٹر
پنجاب سیٹیز پروگرام (PCP)

(۱) لیبر کیمپس کے لئے معیاری اصول و ضوابط

سرگرمیاں

۱. مزدور / لیبر کیلئے عارضی کیمپ / رہائش گاہ کے انتظام و قیام کے لئے جگہ کا انتخاب

مسائل

- مقامی آبادی کے وسائل پر اضافی بوجھ
- مقامی آبادی سے تنازعات کا خدشہ
- سماجی، مذہبی، اور سکیورٹی کے مسائل۔

حفاظتی اقدامات

ٹھیکیدار لیبر کیمپس کے قیام کے وقت مندرجہ ذیل باتوں کا خیال رکھے گا:

- کیمپس ایسی جگہوں پر لگائے جائیں جو ماحولیاتی، مذہبی، سماجی اور ثقافتی نقطہ نظر سے قابل قبول ہوں۔
- مقامی آبادی کے ساتھ کسی تنازعہ سے بچنے کے لیئے آبادی سے دور جگہ کا انتخاب کیا جائے
- لیبر کیمپ کی جگہ اور سہولیات سے متعلق ایک تفصیلی نقشہ تیار کر کے متعلقہ میونسپل کمیٹی/کارپوریشن میں جمع کرایا جائے۔
- دیگر مقامی ادارے جیسے صحت، سکیورٹی وغیرہ کو لیبر کیمپ کے مقام اور مدت کے بارے مطلع کیا جائے تا کہ کسی ناگہانی صورتحال سے بچا جا سکے۔
- لیبر کیمپس کے قیام کیلیئے عارضی جگہ/زمین کا حصول زمین کے مالک کی مرضی، طے کردہ کرایہ اور باقاعدہ تحریری معاہدے کی صورت میں کیا جائے۔
- لیبر کیمپس سے ملحقہ بنیادی سہولتوں جیسے پینے کا پانی اور نکاسی آب کے انتظامات سے ماحولیاتی آلودگی میں اضافہ نہ ہو

سرگرمیاں

۲۔لیبر کیمپ میں مہیا کی جانے والی سہولیات

مسائل

- مناسب انفراسٹرکچر کی کمی
- بنیادی ضروریات اور سہولیات جیسے پانی اور بجلی کی فراہمی، صفائی ستھرائی کی سہولیات اور نکاسی آب کی فراہمی

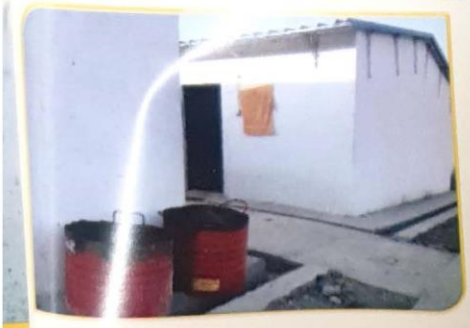
حفاظتی اقدامات

ٹھیکیدار کیمپ سائٹس پر درج ذیل باتوں کا خیال رکھے گا:

- ہوادار اور صاف ستھری رہائش گاہ
- عارضی کمروں کیلئے ایسے میٹریل کا استعمال جو جلد آگ نہ پکڑیں۔
- نہانے، دھونے اور پانی پینے کیلئے صاف اور مناسب پانی کی فراہمی۔
- تمام مزدوروں کیلئے مناسب جگہ کی موجودگی اور محفوظ ماحولیاتی معیار۔
- صاف ستھرے واش رومز اور نکاسی آب کا مناسب انتظام۔
- خواتین لیبر کیلئے پردے اور پرائیویسی کا انتظام اور الگ کمروں کا قیام مزید براں خواتین لیبر کی موجودگی کی صورت میں اُنکے لیے علیحدہ ٹوائلٹس رواش رومز کا انتظام۔
- بین الاقوامی معیار کے مطابق ہر دس افراد کیلئے مطلوبہ ٹوائلٹ کی سہولت کی تعداد ایک ہے۔
- اگر لیبر کیمپ طویل مدت کیلئے لگایا جانا ہو تو بارشوں/سیلاب کے پانی سے بچنے کیلئے مناسب انتظامات کا ہونا اور نکاسی آب کی فراہمی بے حد ضروری ہے۔
- ٹوائلٹس اور عارضی رہائش گاہوں میں بجلی کی فراہمی کو یقینی بنایا جائے۔

سرگرمیاں

۳۔ لیبر کیمپ سے پیدا ہونے والا سالڈ اور لیکوئڈ ویسٹ



مسائل

- تعفن اور بدبو
- صحت کے لئے نقصان
- ماحولیات کے لئے نقصان
- مقامی آبادی کے لئے نقصان
- بیماریاں پیدا کرنے والے بیکٹیریا اور مچھروں کا ذریعہ

حفاظتی اقدامات

- روزمرہ پیدا ہونے والے کوڑا کرکٹ اور کچن کے کوڑا کرکٹ کے لیے الگ الگ کوڑا دانوں کا انتظام
- میونسپل کمیٹی رکارپوریشن کی جانب سے منتخب کردہ جگہ پر روزانہ کی بنیاد پر کوڑے کو اٹھانے اور تلف کرنے کا مناسب انتظام۔
- عارضی ٹوائلٹس سے پیدا شدہ فضلے اور لیکوئیڈ ویسٹ کو حفظان صحت کے اصولوں کے مطابق ٹھکانے لگانے کا انتظام۔
- فضلے کو ٹھکانے لگانے کے لیے رہائش گاہ سے کم از کم 500 میٹر دور جگہ کا انتخاب کیا جائے جس کے اردگرد لوگوں کی رہائش نہ ہو۔
- عارضی ٹوائلٹس سے پیدا شدہ فضلے کو ٹھکانے لگانے کے لیئے منتخب کردہ جگہ کے اردگرد باڑ لگائی جائے یا درخت لگا دیے جائیں تا کہ بچے اور دیگر
- رہائشی داخل نہ ہوں اور مچھر اور بدبو بھی پیدا نہ ہو۔

سرگرمیاں

٤۔ کھانا پکانے کے لئے ایندھن کی فراہمی

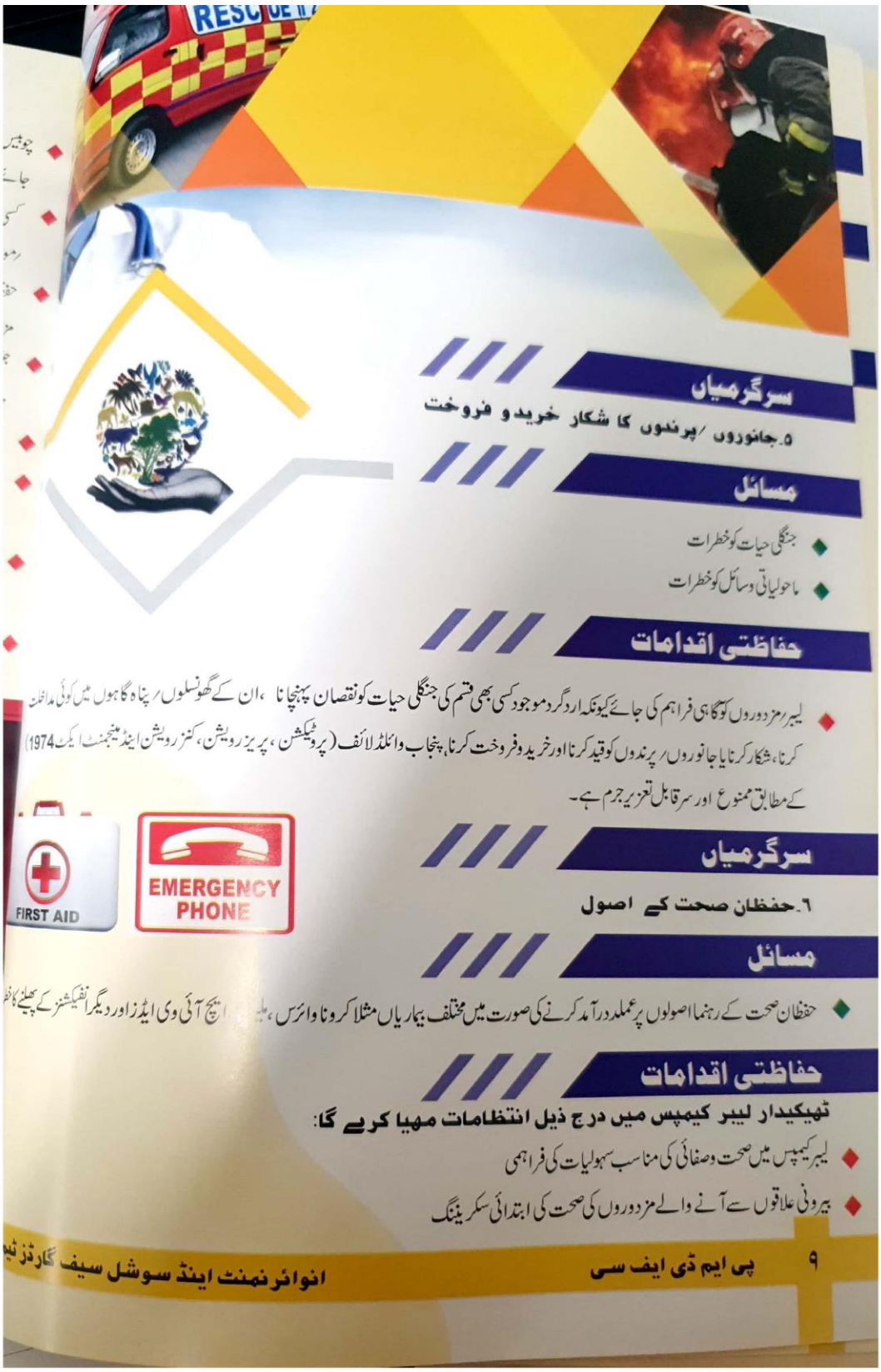
مسائل

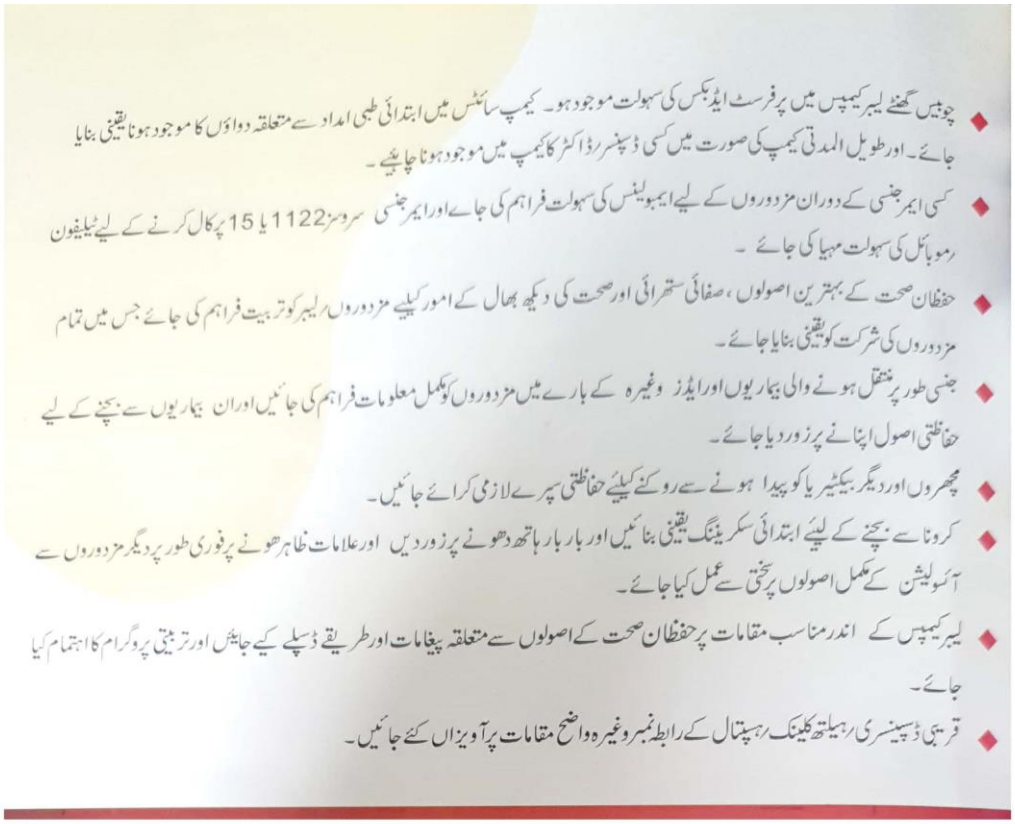
- گیس اور دیگر ایندھن سے چلنے والے چولہوں کے پھٹنے کا اندیشہ
- ایندھن کے لیئے لکڑی کے حصول کے لیے درختوں کی کٹائی

حفاظتی اقدامات

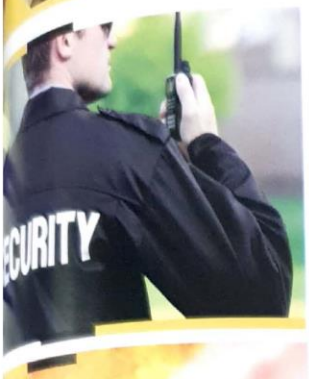
ٹھیکیدار کیمپ سائٹس پر درج ذیل سہولیات مہیا کرے گا۔

- لیبر کیمپس میں کھانا پکانے، کمروں کو گرم رکھنے نیز سردیوں میں نہانے اور دھونے کے لیے گرم پانی کے لیے ایندھن کی لکڑی یا دیگر بائیو گیس استعمال کرنے کی حوصلہ شکنی کریں اور ایندھن کیلیے درختوں کی کٹائی نہ کریں۔
- درختوں اور اردگرد جنگلات کی حفاظت کیلیے مزدوروں/لیبر کو آگاہی دی جائے۔
- کھانا پکانے کے لیئے قدرتی گیس یا مٹی کے تیل کے محفوظ چولہے استعمال کیے جائیں۔





- چوبیس گھنٹے لیبر کیمپس میں پرفرسٹ ایڈ بکس کی سہولت موجود ہو۔ کیمپ سائٹس میں ابتدائی طبی امداد سے متعلقہ دواؤں کا موجود ہونا یقینی بنایا جائے۔ اور طویل المدتی کیمپ کی صورت میں کسی ڈسپنسر/ڈاکٹر کا کیمپ میں موجود ہونا چاہیے۔
- کسی ایمرجنسی کے دوران مزدوروں کے لیے ایمبولینس کی سہولت فراہم کی جائے اور ایمرجنسی سروسز 1122 یا 15 پر کال کرنے کے لیے ٹیلیفون /موبائل کی سہولت مہیا کی جائے۔
- حفظان صحت کے بہترین اصولوں، صفائی ستھرائی اور صحت کی دیکھ بھال کے امور کیلئے مزدوروں/لیبر کو تربیت فراہم کی جائے جس میں تمام مزدوروں کی شرکت کو یقینی بنایا جائے۔
- جنسی طور پر منتقل ہونے والی بیماریوں اور ایڈز وغیرہ کے بارے میں مزدوروں کو مکمل معلومات فراہم کی جائیں اور ان بیماریوں سے بچنے کے لیے حفاظتی اصول اپنانے پر زور دیا جائے۔
- مچھروں اور دیگر بیکٹیریا کو پیدا ہونے سے روکنے کیلئے حفاظتی سپرے لازمی کرائے جائیں۔
- کرونا سے بچنے کے لیئے ابتدائی سکریننگ یقینی بنائیں اور بار بار ہاتھ دھونے پر زور دیں اور علامات ظاہر ہونے پر فوری طور پر دیگر مزدوروں سے آئسولیشن کے مکمل اصولوں پر سختی سے عمل کیا جائے۔
- لیبر کیمپس کے اندر مناسب مقامات پر حفظان صحت کے اصولوں سے متعلقہ پیغامات اور طریقے ڈسپلے کیے جائیں اور تربیتی پروگرام کا اہتمام کیا جائے۔
- قریبی ڈسپنسری/ہیلتھ کلینک/ہسپتال کے رابطہ نمبر وغیرہ واضح مقامات پر آویزاں کئے جائیں۔



سرگرمیاں

۷۔ سکیورٹی اور حفاظت کی سہولیات

مسائل

- سکیورٹی کے مسائل
- چوری کا خطرہ
- دہشت گردی کا خطرہ
- آگ لگنے کے خطرات

حفاظتی اقدامات

- کیمپ کے گرد حفاظتی باڑ کی فراہمی
- حفاظتی اہلکار (پولیس یا نجی سکیورٹی گارڈ/ہوم گارڈ وغیرہ) کی تعیناتی
- کیمپ میں موجود افراد کی صحیح تعداد اور آمد و رفت کا حساب کتاب رکھنے کے لیے رجسٹر میں اندراج۔
- آگ سے بچاؤ کے لیئے لیبر کیمپ بنانے میں ایسا کوئی میٹیریل استعمال نہ کیا جائے جس سے آگ لگنے کا اندیشہ ہو۔
- بارش، طوفان، سیلاب وغیرہ سے بچنے کیلئے اس بات کو یقینی بنایا جائے کہ کیمپ سائٹ اور عارضی کمرے/رہائش گاہیں محفوظ رہیں۔
- لیبر کیمپس میں آگ بجھانے والا آلات موجود ہوں جن پر انکی آخری معیاد کی تاریخ درج ہو۔ اور سکیورٹی گارڈ یا لیبر وغیرہ میں سے تمام افراد کو آگ بجھانے والے آلہ استعمال کرنے کی تربیت دی جائے۔
- لیبر کیمپ میں واضح مقامات پر ہنگامی/ایمرجنسی رابطہ نمبر نمایاں درج ہوں۔
- ٹھیکیدار، لیبر کے ساتھ ماہانہ میٹنگز میں ایمرجنسی کی صورت میں ہر ایک مزدور کو اسکی ذمہ داریوں اور تربیت سے آگاہ کرے اور اسکی تفصیل کنسلٹنٹ اور میونسپل کمیٹی/کارپوریشن کو فراہم کرے۔ اور کسی بھی قسم کی شکایات ایک رجسٹر میں درج کرے۔

سرگرمیاں

۸۔ حفظان صحت کے اصولوں پر مبنی خوراک (Food Safety)

مسائل

- فوڈ پوائزننگ کا خدشہ
- بیماری کا ڈر

حفاظتی اقدامات

- مزدوروں کو صاف ستھرے اور تازہ کھانے کی فراہمی کو یقینی بنایا جائے۔

سرگرمیاں

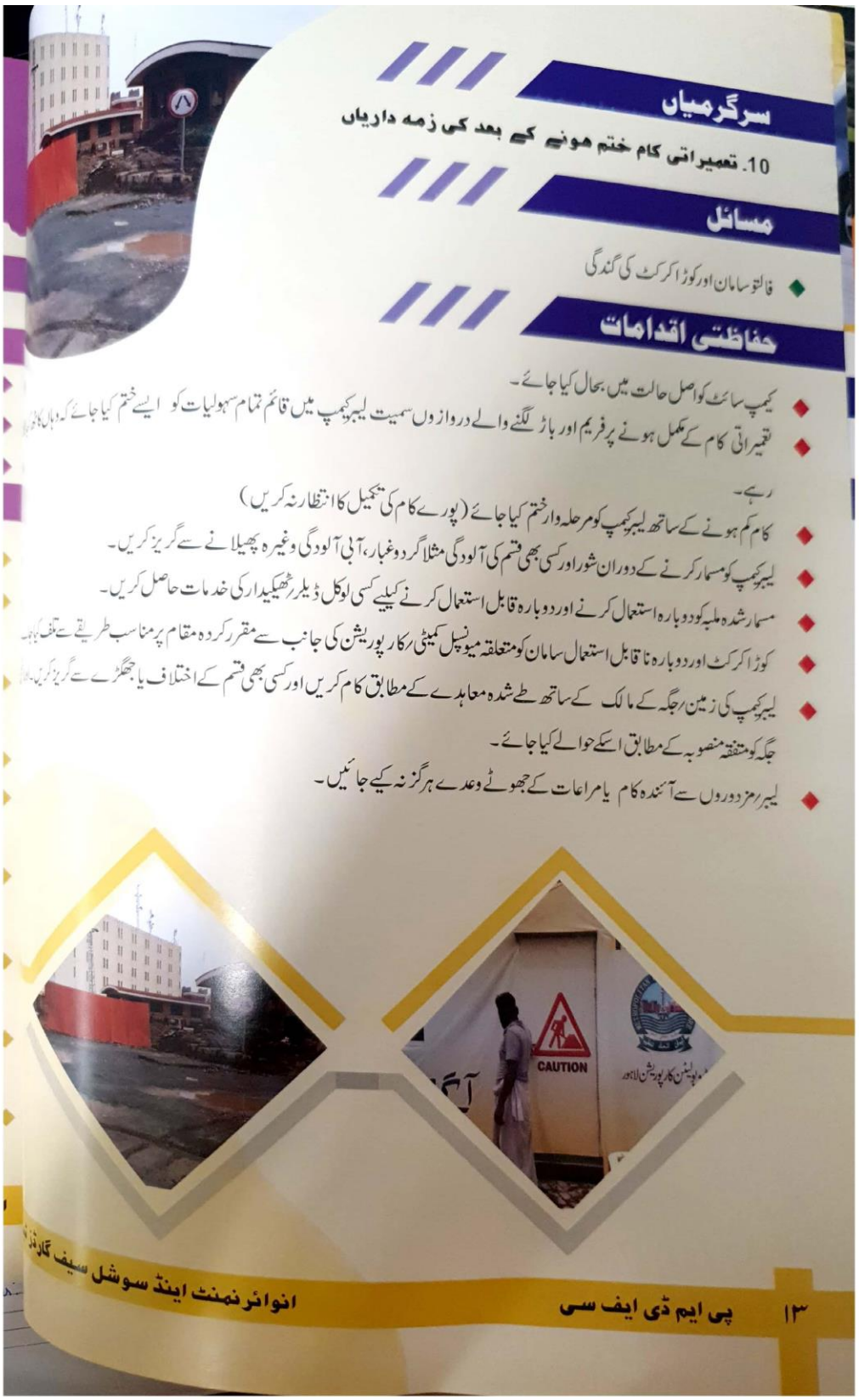
۹۔ مذہبی و سماجی میل جول

مسائل

- مذہبی عبادات میں رکاوٹ
- سماجی تعلقات میں دشواری
- سماجی، ثقافتی اور مذہبی خیالات میں شدت پسندی یا لڑائی جھگڑا وغیرہ

حفاظتی اقدامات

- مزدوروں/لیبر کو ان کے مذہب اور فرقے کے مطابق مذہبی عبادات کی سہولیات فراہم کرنا۔
- خواتین لیبر کی موجودگی کی صورت میں ان کے لیے علیحدہ وضو، نماز اور پردے کا اہتمام کیا جائے۔
- تمام مزدوروں کی مذہبی، ثقافتی یا فرقے کی وابستگی سے قطع نظر غیر متعصّبانہ اور برابری کا سلوک کیا جائے۔
- مزدوروں کو تعمیراتی کام کے دوران نماز میں شرکت کرنے یا دیگر عبادات کی اجازت دی جائے اور اس سلسلے میں مذہبی اور سکیورٹی امور کے ذمہ دار مقامی حکام کو تعمیراتی کاموں کے آغاز سے پہلے باضابطہ طور پر آگاہ کیا جائے تاکہ صحت عامہ، معاشرتی اور حفاظتی امور پر موثر نگرانی برقرار رہ سکے۔



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سرگرمیاں

۱۔تمام قسم کے تعمیراتی سرگرمیاں اور کام

مسائل

- انجریز اور چوٹیں وغیرہ
- نامناسب دیکھ بھال اور بروقت امداد نہ ملنے کے باعث ہلاکت
- دہشت گردی اور سکیورٹی سے متعلق خطرات

حفاظتی اقدامات

- تمام مزدوروں/لیبر سے مقامی/بین الاقوامی معیار کے مطابق مناسب حفاظتی اور قانونی ضوابط کی پیروی کروائی 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 ماحول مہیا کیا جائے۔
- مزدوروں/لیبر کیلیے ذاتی حفاظت کے سامان (PPEs) کی فراہمی مثلاً حفاظتی جوتے، ہیلمٹ، ماسک، دستانے، حفاظتی لباس، چشمے، چہرے اور کان کی حفاظت کے سامان وغیرہ کی فراہمی
- تمام مزدوروں/لیبر کو ذاتی حفاظت کے ساز وسامان کے بارے میں مکمل آگاہی اور استعمال کے طریقے کار کے بارے تربیت کا انتظام۔
- اگر تعمیراتی کام ایک ماہ سے زائد عرصہ کیلئے جاری رہنا ہو تو تمام مدت کے لیئے صحت، صفائی اور تربیت یافتہ ماحولیات کی تعیناتی کی جائے جو مزدوروں کی صحت، صفائی اور ماحولیات کے امور کی نگرانی کرے اور انھیں تربیت وآگاہی فراہم کرے۔
- تعمیراتی کاموں کے دوران کسی چوٹ لگنے/انجریز کی صورت میں مزدور/لیبر کے علاج معالجے کی سہولت مہیا کرنا اور بروقت ہسپتال/ڈسپنسری وغیرہ پہنچانا ٹھیکیدار کی ذمہ داری ہے۔
- مزید برآں دوران تعمیر تعمیراتی کام کی وجہ سے لگنے والی چوٹ/انجریز کے نتیجے میں ہلاکت ہو جانے کی وجہ سے مزدور/لیبر کی انشورنس اور اس کی بروقت ادائیگی کو یقینی بنایا جائے۔
- ایمرجنسی رابطہ نمبر مثلاً ریسکیو 1122 یا 15 اور دیگر قریبی ہسپتالوں/ڈسپنسری وغیرہ کے نمبر تعمیراتی جگہوں پر واضح درج ہونے چاہیں اور کال کی سہولت فراہم کی جائے۔
- شہری ترقی کے تعمیراتی منصوبہ جات کے اغاز سے قبل صحت، مذہبی امور اور شہری تحفظ/سکیورٹی فراہم کرنے والے مقامی اداروں کو آگاہ رکھا جائے اور اس سلسلے میں متعلقہ میونسپل کمیٹی/کارپوریشن کے تعاون سے موثر حکمت عملی تشکیل دی جائے۔

سرگرمیاں

۲۔تمام قسم کی تعمیراتی سرگرمیاں اور کنسٹرکشن کے کام

مسائل

- 15 سال سے کم عمر بچوں کی صحت اور تعلیم کا نقصان
- 18 سال اور اس سے کم عمر بچوں کی صحت کا نقصان
- حاملہ مزدور عورتوں کی صحت سے متعلقہ خطرات

حفاظتی اقدامات

- دی پنجاب رسٹرکشن آن ایمپلائمنٹ آف چلڈرن ایکٹ 2016 کے مطابق 15 سال سے کم عمر بچوں کو مزدوری یا کسی سرگرمی کے لیئے کام پر نہیں رکھا جا سکتا۔
- ویسٹ پاکستان میٹرنٹی بینیفٹ آرڈیننس 1958 کے مطابق حاملہ خواتین یا ایسی خواتین جنہوں نے چھ ہفتے قبل بچے کو جنم دیا ہو، کو مزدوری یا کسی سرگرمی کے لیئے کام پر نہیں رکھا جا سکتا۔
- دی پنجاب رسٹرکشن آن ایمپلائمنٹ آف چلڈرن ایکٹ 2016 کے مطابق 18 سال اور اس سے کم عمر کے بچوں کہ محنت مزدوری کے ایسے کام کے لیئے نہیں رکھا جا سکتا جن میں صحت کو نقصان پہنچنے یا چوٹ لگنے یا کسی کیمیائی زہریلے مادے سے نقصان پہنچنے یا جہاں ہڈی ٹوٹنے کا اندیشہ ہو۔



سرگرمیاں

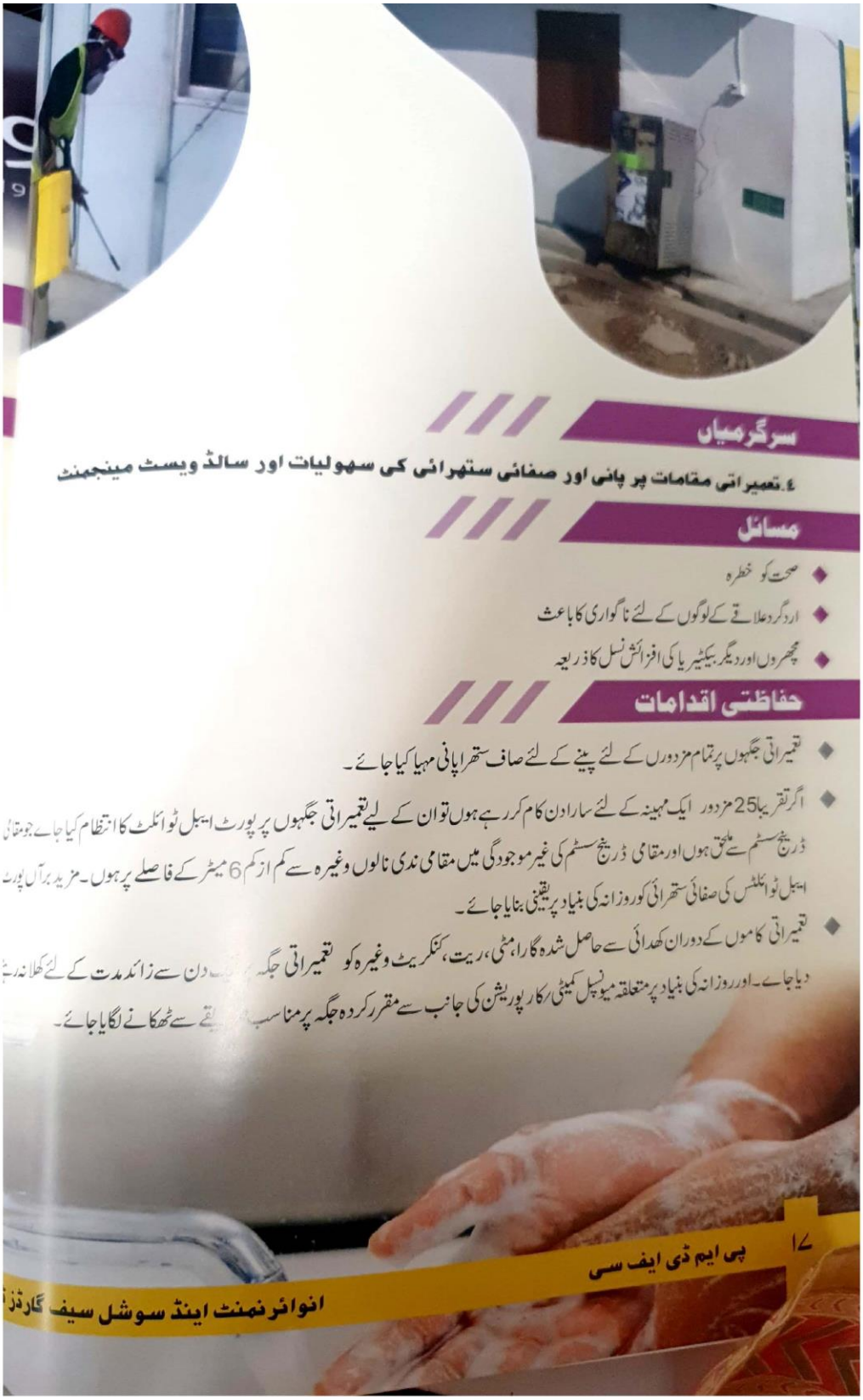
۳۔دوران تعمیر حادثات کا پیش آنا

مسائل

- فوری طبی امداد کی کمی
- اردگرد کے علاقوں میں ابتدائی طبی سہولیات اور صحت عامہ کا فقدان

حفاظتی اقدامات

- تعمیراتی جگہ پر فرسٹ ایڈ باکس کی موجودگی کہ یقینی بنایا جائے اور فرسٹ ایڈ باکس میں تمام ضروری ادویات اور طبی امداد کا ضروری سامان موجود ہو۔
- تعمیراتی کاموں کے دوران پیش آنے والے حادثات بیماریوں اور واقعات کا مکمل ریکارڈ رکھا جائے۔اسی طرح حادثات کی نوعیت و وجوہات کا مکمل ریکارڈ موجود ہو۔
- مزدوروں کی صحت و سکیورٹی سے متعلق ممکنہ خطرات کی بروقت نشاندہی کی جائے خاص کر وہ خطرات جو جان لیوا ثابت ہو سکتے ہیں۔اور ضروری حفاظتی اقدامات بروقت کئے جائیں۔
- تعمیراتی کاموں سے متعلق مشینری چلانے والے ڈرائیوروں کو دوران ڈرائیونگ قواعد وضوابط پر سختی سے عملدرآمد کرانے کے لئے آگاہی فراہم کی جائے۔
- تعمیراتی علاقوں اور سڑکوں کے ساتھ ساتھ روشنی کا معقول انتظام ہو۔



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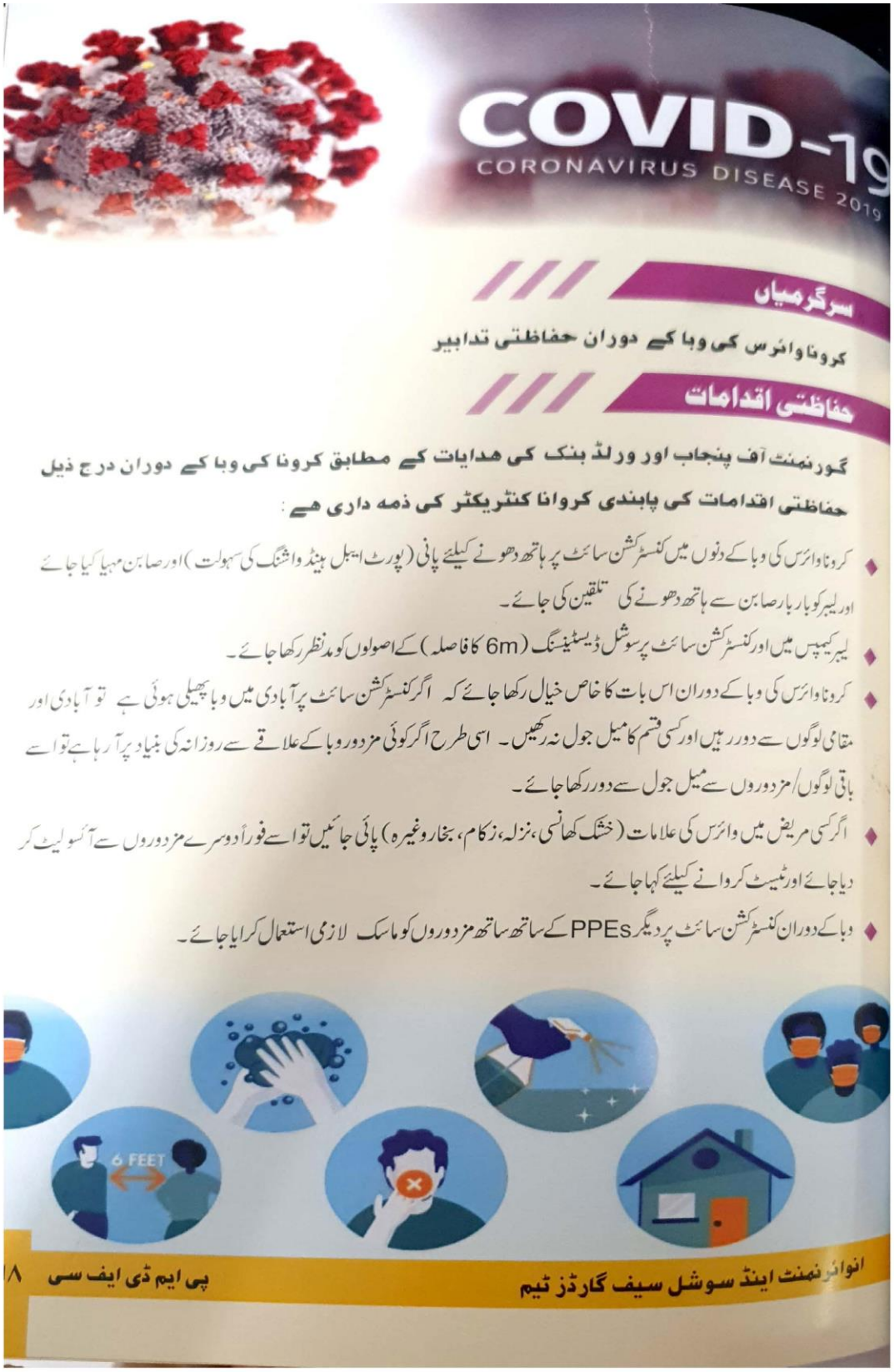


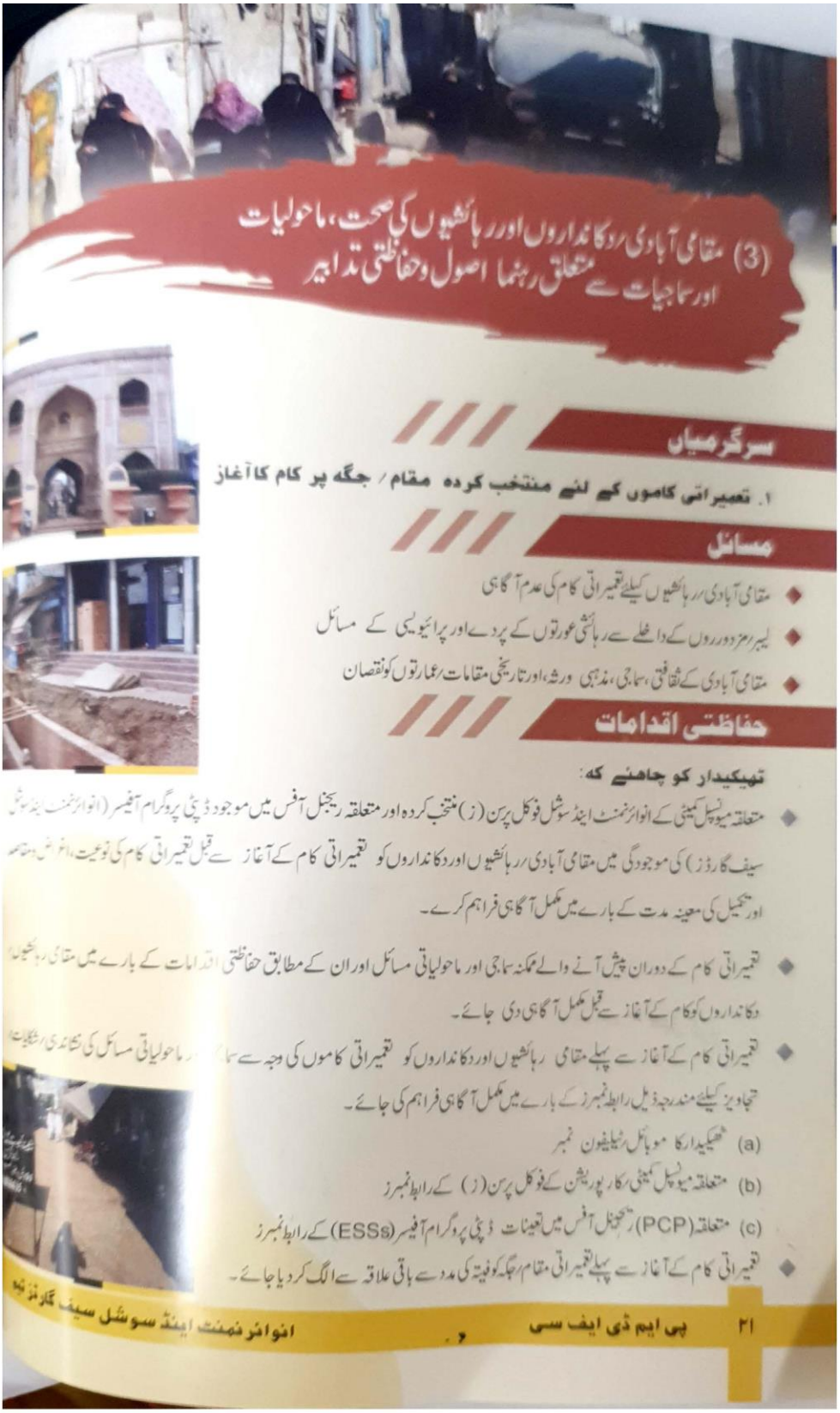
تعمیراتی کاموں کے دوران خطرات/حادثات سے بچنے کیلئے سامان برائے ذاتی حفاظت کا خلاصہ

مقصد	تعمیراتی کام	تجویز کردہ سامان برائے ذاتی حفاظت	تصویریں
آنکھوں اور چہرے کی حفاظت/ تحفظ	اڑنے والے ذرات کا استعمال جیسے پگھلی ہوئی دھات مائع کیمیکل، گیسیں، اور بخارات، روشنی کی شعاعیں۔	حفاظتی عینکیں	
سر کی حفاظت/ تحفظ	ایسے تمام کام جن میں گرنے کا خطرہ ہو، بلندی پر کام کرنا، تعمیراتی کام کو سنبھالنے اور دوسری جگہ پر منتقل کرنے والے کام۔	اوپر اور اطراف سے نقصان سے بچاؤ کیلئے پلاسٹک کے ہیلمٹ	
سماعت کی حفاظت/ تحفظ	کھدائی/شور پیدا کرنے والے کام یا بھاری مشینری استعمال کرنے کی وجہ سے شور۔	سماعت کی حفاظت کے آلہ جات جیسے کن پوش یا ایئر پلگ	
پاؤں کی حفاظت/ تحفظ	تمام تعمیراتی کام جن میں چیزوں کا گرنا یا گھمانا، نوکیلی اشیا شامل ہوں۔ گلانے والا یا گرم مائع، کچرے کے ڈھیر سے کچرا اٹھانا۔	ہلنے اور گرنے والی اشیاء، مائعات اور کیمیائی مواد سے بچاؤ کیلئے حفاظتی جوتے یا بوٹ	
ہاتھوں کی حفاظت/ تحفظ	جسمانی صحت کیلئے نقصان دہ سامان جیسے کچرے کو سنبھالنا، ایسے کام جس میں کاٹ یا گہرے زخم لگنے کا اندیشہ ہو، ارتعاش، بہت زیادہ درجہ حرارت۔	ربڑ یا مصنوعی مواد (نیوروپین)، چمڑا، سٹیل، غیر موصل مواد سے بنے گلوز	
تحفظ تنفس	دھول، دھند، شعلے، گیسیں، دھواں، بخارات آکسیجن کی کمی	ایک جگہ سے دوسری جگہ لے جانے والے یا ایک ہی جگہ پڑے مواد کی فراہمی تعمیراتی جگہ پر بچاؤ کا سامان چہرے کے ماسک جن میں دھول ہٹانے اور ہوا کو صاف رکھنے کیلئے (کیمیائی مواد، دھند، بخارات اور گیسوں سے) مناسب فلٹر لگے ہوں	 
جسم / ٹانگوں کی حفاظت/ تحفظ	تمام کام جن میں شدید درجہ حرارت، نقصان دہ مواد، حیاتیاتی ایجنٹ، چھوٹے یا گہرے زخم لگنے کا اندیشہ ہو	مناسب میٹریل سے بنے غیر موصل کپڑے، ایپرن وغیرہ	
اونچائی پر کام کرتے ہوئے حفاظت	تمام تعمیراتی کام جو 4 فٹ یا اس سے زیادہ کی اونچائی پر کے جانے ہوں بشمول سٹریٹ لائٹس وغیرہ	ہیلمٹ، حفاظتی عینکیں، کے گلوز اور ربڑ کے بوٹ	
اونچائی پر کام کرتے ہوئے حفاظت	تمام تعمیراتی کام جو 4 فٹ یا اس سے زائد اونچائی پر مسلسل ایک دن کیلئے کیے جانے ہوں	اینکر، بیلٹ، رسی، کنیکٹر، ہ جگہ اور ایک ساتھی فرد	

Summary of Recommended Personal Protective Equipment According to Hazard

Objective	Workplace Hazards	Suggested PPE	Pictures
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	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.	
Working at *height	Rehabilitation Projects	Helmet, Safety glasses,	
	New Construction Projects	Anchor, belt, lanyard,	

*In general, use of PPEs is required for any height of 4 ft or more. *Ref: OSHA standards*



(3) مقامی آبادی/دکانداروں اور رہائشیوں کی صحت، ماحولیات اور سماجیات سے متعلق رہنما اصول وحفاظتی تدابیر

سرگرمیاں

۱. تعمیراتی کاموں کے لئے منتخب کردہ مقام/ جگہ پر کام کا آغاز

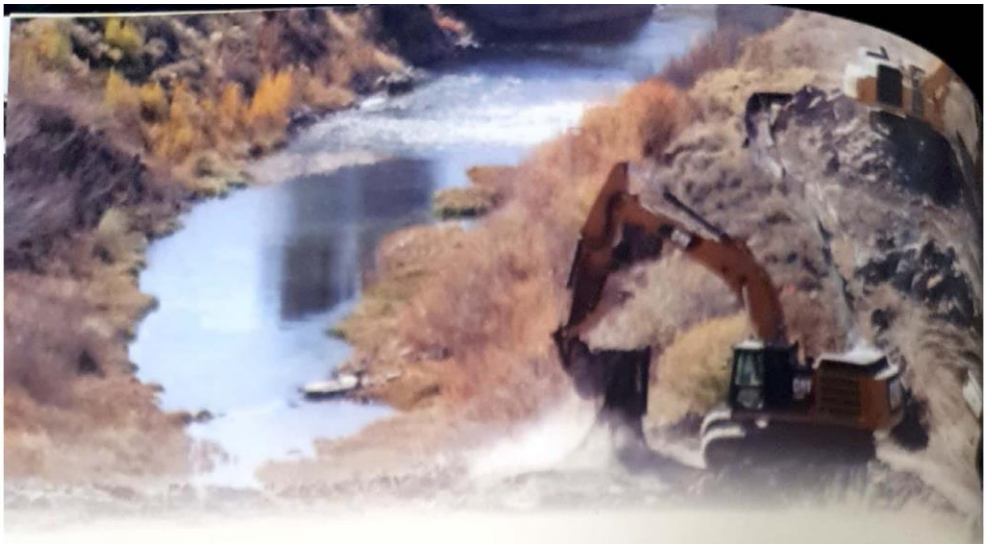
مسائل

- مقامی آبادی/رہائشیوں کیلئے تعمیراتی کام کی عدم آگاہی
- لیبر/مزدوروں کے داخلے سے رہائشی عورتوں کے پردے اور پرائیویسی کے مسائل
- مقامی آبادی کے ثقافتی، سماجی، مذہبی ورثہ، اور تاریخی مقامات/عمارتوں کو نقصان

حفاظتی اقدامات

ٹھیکیدار کو چاہئے کہ:

- متعلقہ میونسپل کمیٹی کے انوائرنمنٹ اینڈ سوشل فوکل پرسن (ز) منتخب کردہ اور متعلقہ ریجنل آفس میں موجود ڈپٹی پروگرام آفیسر (انوائرنمنٹ اینڈ سوشل سیف گارڈز) کی موجودگی میں مقامی آبادی/رہائشیوں اور دکانداروں کو تعمیراتی کام کے آغاز سے قبل تعمیراتی کام کی نوعیت، دورانیہ اور تکمیل کی معینہ مدت کے بارے میں مکمل آگاہی فراہم کرے۔
- تعمیراتی کام کے دوران پیش آنے والے ممکنہ سماجی اور ماحولیاتی مسائل اور ان کے مطابق حفاظتی اقدامات کے بارے میں مقامی رہائشیوں/ دکانداروں کو کام کے آغاز سے قبل مکمل آگاہی دی جائے۔
- تعمیراتی کام کے آغاز سے پہلے مقامی رہائشیوں اور دکانداروں کو تعمیراتی کاموں کی وجہ سے سماجی/ماحولیاتی مسائل کی نشاندہی/شکایات/ تجاویز کیلئے مندرجہ ذیل رابطہ نمبرز کے بارے میں مکمل آگاہی فراہم کی جائے۔
  - (a) ٹھیکیدار کا موبائل/ٹیلیفون نمبر
  - (b) متعلقہ میونسپل کمیٹی/کارپوریشن کے فوکل پرسن (ز) کے رابطہ نمبرز
  - (c) متعلقہ (PCP) ریجنل آفس میں تعینات ڈپٹی پروگرام آفیسر (ESSs) کے رابطہ نمبرز
- تعمیراتی کام کے آغاز سے پہلے تعمیراتی مقام/جگہ کو فیتہ کی مدد سے باقی علاقہ سے الگ کر دیا جائے۔



تعمیراتی جگہ/مقام پر واضح بورڈ نصب کر دیئے جائیں، جن پر درج ذیل پیغامات/احکامات لکھے ہوں:

(a) تعمیراتی کام کی نوعیت

(b) ٹریفک میں رکاوٹ کی صورت میں متبادل راستے کا نشان اور عارضی رکاوٹ کا پیغام

(c) ایمرجنسی اور شکایت کیلئے رابطہ نمبرز

(d) (PMDFC) کی جانب سے جاری کردہ سماجی و ماحولیاتی پیغامات پر مبنی پوسٹرز۔

تعمیراتی کام کی جگہ کے ارد گرد 100 میٹر تک کی حدود میں موجود ثقافتی، سماجی، مذہبی ورثہ، تاریخی عمارتوں اور مذہبی مقامات جیسے قبرستان، مساجد، مندر، گرجا گھروں وغیرہ کو کسی قسم کا نقصان نہ پہنچایا جائے اور ان کی حدود میں کوڑا کرکٹ ڈالنے یا فالتو پانی چھوڑنے سے گریز کیا جائے۔ مزید برآں کھدائی کے دوران کسی نئے آثارِ قدیمہ ملنے کی صورت میں متعلقہ مقامی محکمے سے رجوع کیا جائے اور کھدائی کا کام بند کر کے تعمیراتی کام روک دیا جائے۔

سرگرمیاں

2- کھدائی کی جگہ اور اس سے متعلقہ کام اور نالوں کی صفائی اور اس سے حاصل شدہ بھل وغیرہ

مسائل

- کھدائی سے حاصل شدہ مٹی/کنکر کے ڈھیر (Debris) سے رہائشیوں کی آمد و رفت اور ٹریفک میں رکاوٹ
- مقامی رہائشیوں کیلئے ناگواری کا باعث
- مچھروں اور دیگر بیماری پھیلانے والے جراثیم کی افزائش کا ذریعہ
- کھدائی کی جگہ پر گرنے اور حادثات کے خطرات

حفاظتی اقدامات

- تعمیر کے دوران کھدائی کے تمام مقامات کے اردگرد حفاظتی ٹیپ / پٹی لگائی جائے اور کھدائی کی جگہ کو عارضی طور پر بند کر دیا جائے جس کے باہر اس جگہ سے دور رہنے کیلئے واضح پیغامات لکھے ہوں۔
- کھدائی سے حاصل شدہ مٹی / کنکر / پتھر وغیرہ کو ایک دن سے زیادہ اس جگہ پر موجود نہ رہنے دیا جائے بلکہ روزانہ کی بنیاد پر متعلقہ میونسپل کمیٹی / کارپوریشن کی منتخب کردہ جگہ پر محفوظ طریقے سے ٹھکانے لگایا جائے۔
- نالوں کی صفائی سے حاصل شدہ بھل / ریت وغیرہ کو ایک دن سے زیادہ اس جگہ پر موجود نہ رہنے دیا جائے بلکہ روزانہ کی بنیاد پر اٹھوایا جائے اور بھل کو ایک جگہ سے دوسری جگہ منتقلی کے دوران ٹریکٹر ٹرالی کو ترپال کی مدد سے ڈھانپ کر لے جایا جائے۔

سرگرمیاں

3-تعمیراتی مشینری / تعمیراتی مٹیریل اور تعمیراتی کاموں کی وجہ سے عارضی بندش

مسائل

- ٹریفک میں رکاوٹ۔

حفاظتی اقدامات

- ٹریفک میں ممکنہ رکاوٹ کے پیش نظر متبادل راستے کا انتخاب اور اس کی نشاندہی کیلئے پیغامات واضح درج کیے جائیں۔
- ٹریفک کونز (cones) کی مدد سے رکاوٹ والی جگہ کو الگ کر دیا جائے تاکہ حادثات سے بچا جا سکے۔
- ٹریفک میں زیادہ دنوں تک مسلسل رکاوٹ کی صورت میں مقامی ٹریفک پولیس کو آگاہ کیا جائے اور ان کے ساتھ مل کر ٹریفک مینجمنٹ پلان کو تشکیل دیا جائے جس کو واضح مقام پر نصب کیا جائے اور مقامی آبادی / رہائشیوں کو اس کے بارے میں مکمل آگاہی دی جائے۔

سرگرمیاں

4-تعمیراتی کاموں کی وجہ سے راستوں میں عارضی رکاوٹ اور زمین کا عارضی حصول

مسائل

- روزمرہ معمولات اور کاموں میں رکاوٹ
- رہائشی خواتین کیلئے آنے جانے میں رکاوٹ
- دکانداروں کے دکانوں کے آگے رکاوٹیں اور گاہکوں کیلئے مشکلات
- مستقل و عارضی سٹالز لگا کر بیچنے والے چھوٹے بڑے مستقل دکانداروں کا گاہک کم ہو جانے کی وجہ سے مالی نقصان

حفاظتی اقدامات

- تعمیراتی علاقے میں اردگرد موجود تمام چھوٹی بڑی دکانوں، ٹھیلوں، عارضی خوانچہ فروشوں اور گھروں کا مکمل سروے (تعداد اور مالی حیثیت وغیرہ) او
ان پر ممکنہ سماجی اور ماحولیاتی اثرات کا جائزہ لے کر ایک تفصیلی رپورٹ اور متعلقہ پلان میونسپل کمیٹی رکارپوریشن کے دفتر میں موجود ہونی چاہئے
جو کہ فوکل پرسنز، متعلقہ علاقائی آفس میں موجود ڈپٹی پروگرام آفیسر (ESSs) کے ساتھ تعمیراتی کاموں کی مالیت کا اندازہ لگائے وقت تیار
جائیگی۔ اس رپورٹ اور پلان میں موجود سماجی اور ماحولیاتی مسائل کے حل کیلئے مختص رقم اور ان کا صحیح طریقے سے استعمال ٹھیکیدار کے کنٹریکٹ
حصہ ہوگا۔
- رہائشیوں کیلئے آنے جانے اور دکانوں رگھروں تک رسائی کے لیے متبادل راستے مہیا کرنا ٹھیکیدار کی ذمہ داری ہے۔
- دکانوں رتھڑوں رٹھیلوں وغیرہ کے باہر کسی بھی قسم کے نقصان یا توڑ پھوڑ کی صورت میں ٹھیکیدار طے شدہ ضوابط کے مطابق اس کی قیمت متاثرہ لوگوں
ادا کرے گا۔
- لیبر رمزدور کو تربیت دی جائے کہ وہ اردگرد رہائشی عورتوں اور بچوں کے آنے جانے میں کوئی رکاوٹ نہ بنیں اور رہائشیوں کے ساتھ بلاضرورت کو
میل جول نہ رکھیں۔
- تعمیراتی کیمپ لگانے، تعمیراتی کام کرنے، مشینری اور تعمیراتی سامان رکھنے کے لیئے عارضی طور پر حاصل کی گئی زمین کا کرایہ مالک مکان کو وقت
پر ادا کی جائے گا۔ اور تحریری معاہدے کی صورت میں ٹھیکیدار تمام قواعد وضوابط کا پابند ہوگا۔
- تعمیراتی کاموں رکیمپ وغیرہ لگانے کے لیئے عارضی زمین حاصل کرنے کے لئے مقامی رہائشیوں سے مشاورت اور دنوں کے حساب سے کرایہ اور
اس کا مکمل طریقہ کار وضع کر کے باقاعدہ لکھا جائے گا۔ اور خلاف ورزی کی صورت میں ٹھیکیدار ذمہ دار ہوگا۔

سرگرمیاں

۵۔تعمیراتی کام اور ہیوی مشیری کا استعمال

مسائل

- شور غل
- پانی کی آلودگی
- ہوائی آلودگی
- دیگر ماحولیاتی مسائل

حفاظتی اقدامات

- تعمیراتی علاقے میں موجود ہسپتالوں، سکولوں، کالجوں وغیرہ اور رہائشی گھروں، دکانوں کی تمام تفصیلات کی رپورٹ متعلقہ میونسپل کمیٹی کے دفتر میں موجود ہونی چاہئے جو کہ ٹھیکیدار کے کنٹریکٹ کا حصہ ہوگی۔ اور ٹھیکیدار ان تفصیلات کے مطابق ایسا پلان ترتیب دے گا جس سے اردگرد عمارتوں، رہائشیوں اور دکانداروں کو کم سے کم پریشانی کا سامنا کرنا پڑے مثلاً زیادہ شور پیدا کرنے والے کام دن کے اس حصے میں کئے جائیں جب ہسپتالوں، اور سکولوں، کالجوں وغیرہ کے مصروف اوقات کار نہ ہوں اور ایسے کام جن کی وجہ سے راستوں کی عارضی بندش ضروری ہوں وہ رات کو کیئے جائیں جب رہائشیوں کی آمد و رفت نہ ہو۔
- تعمیراتی کاموں کے دوران پیدا شدہ فاضل پانی یا پورٹیبل ٹوائلٹس کا پانی رفضلہ وغیرہ کا محفوظ اور مناسب طریقے سے ٹھکانے لگانے کا بندوبست کیا جائے اور فاضل پانی کو پینے کے صاف پانی کے ساتھ شامل ہونے سے بچانے کا ہر ممکن قدم اٹھایا جائے۔
- واٹر سپلائی کی سکیموں یا ایسی تمام کام جن کی وجہ سے رہائشیوں کو پانی یا سیوریج وغیرہ میں عارضی بندش کا سامنا کرنا پڑ سکتا ہو۔ ایسے تمام کاموں کے آغاز سے پہلے رہائشیوں کو پیشگی اطلاع دی جائے اور متبادل انتظامات کا خاطر خواہ انتظام کیا جائے۔
- تعمیراتی کاموں کی وجہ سے درختوں کی کٹائی سے ہر حال میں گریز کیا جائے اور ناگزیر صورت حال میں ایک درخت کی کٹائی کے متبادل کے طور پر چار درخت لگانا ضروری ہیں۔
- تعمیراتی جگہ پر پیدا ہونے والے کوڑا کرکٹ کو ٹھکانے لگانے کیلئے ڈسٹ بن لگائے جائیں اور ان کو روزانہ کی بنیاد پر متعلقہ میونسپل کمیٹی کی طرف سے مقرر کردہ مقام پر ٹھکانے لگایا جائے۔
- کوڑا کرکٹ اور فاضل پانی اردگرد موجود فصلوں اور ندی نالوں میں پھینکنے سے گریز کریں۔
- گرد و غبار اور ہوائی آلودگی کی صورت میں پانی کا باقاعدہ چھڑکاؤ کریں۔
- تعمیراتی کام کی مدت اور نوعیت کے مطابق کام کے آغاز سے پہلے، کام کے دوران اور کام کے بعد شور کی آلودگی، ہوائی آلودگی اور آبی آلودگی کے نمونہ جات حاصل کر کے ان کی جانچ پڑتال کرانا ٹھیکیدار کی ذمہ داری ہے۔ اس سلسلے میں ریجنل آفس میں موجود ڈپٹی پروگرام آفیسر (ESSs) سے مزید رہنمائی حاصل کریں۔
- تعمیراتی کام مکمل ہو جانے کے بعد علاقے کی صفائی ستھرائی اور ماحولیاتی خوبصورتی کا خاص خیال رکھیں اور پہلے سے بہتر حالت میں چھوڑیں۔

★ سپریم کورٹ آف پاکستان کے سوموٹو کیس نمبر 25 بمطابق 2009 حوالہ نمبر "کٹنگ آف ٹریز فار کینال ووائیڈننگ پراجیکٹ لاہور" تعمیراتی کاموں کے دوران ہر ایک درخت کی کٹائی کے متبادل چار درخت لگائے جائیں گے۔