Initial Environmental Examination

Annex (4 to 8)
Project Number: 48404-004
July 2020

PAK: Central Asia Regional Economic Cooperation Corridor Development Investment Program (Tranche 2)

Shikarpur–Rajanpur Section of N55

Prepared by the National Highway Authority Pakistan for the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of 2 June 2020)

Currency unit	–	Pakistan Rupee/s (PRe/PRs)
PRe1.00	=	$0.0061
$1.00	=	PRs164.25

UNIT CONVERSIONS

1 gallon	–	3.785 liter
1 gallon/day	–	0.00455 m^3/day
1 m^3/day	–	0.041 m^3/hour
1 cusec	–	28.31 liters
1 kilometer	–	1,000 meters
1 foot	–	12 inches
1 acre	–	4,046.8 $meter^2$

ABBREVIATIONS

AAD	–	average annual daily
AADT	–	average annual daily traffic
AASHTO	–	American Association of State Highway and Transportation
AASHTO ASM	–	American Association of State Highway and Transportation Officials
ABC	–	aggregate base course
ACBC	–	asphaltic concrete base course
ACW	–	additional carriageway
ACWC	–	asphaltic concrete wearing course
ADB	–	Asian Development Bank
AKM	–	avenue kilometer
APHA	–	American Public Health Association
AP	–	affected person
ASR	–	air sensitive receiver
ASTM	–	American Society of Testing Materials
BDL	–	below detection limit
BHU	–	basic health unit
BOD	–	bio-chemical oxygen demand
BP	–	Bank Policy
^{O}C	–	degree Centigrade/Celsius
CAREC	–	Central Asia Regional Economic Corridor
CC	–	construction contractor
CO	–	carbon monoxide
COD	–	chemical oxygen demand
CSR	–	composite schedule rates

dB (A)	–	decibel
DCR	–	district census report
DC	–	design consultant
DD	–	deputy director
DMC	–	developing member countries
DO	–	dissolved oxygen
EA	–	environmental assessment
EE	–	environmental engineer
EIA	–	environmental impact assessment
EMP	–	environmental management plan
EPA	–	Environment Protection Agency
EPD	–	Environment Protection Department
EPO	–	Environmental Protection Ordinance
ESR	–	Environmental Sensitive Receiver
FCC	–	Forest Conservation Committee
FI	–	financial intermediary
GHG	–	greenhouse gas
GOP	–	Government of Pakistan
GRC	–	grievance redress committee
GRM	–	grievance redress mechanism
HSIP	–	Highway Sector Improvement Program
IEE	–	initial environmental examination
ILO	–	International Labor Organization
km	–	kilometer
kph	–	kilometer per hour
LAC	–	land acquisition collector
LAeq	–	equivalent continuous sound level, 'A weighting' = correction by factors that weight sound to correlate with the sensitivity of the human ear to sounds at different frequencies
m	–	meter
MFF	–	multitranche financing facility
MGDs	–	Millennium Development Goals
MVE	–	motor vehicle examiner
NEQS	–	National Environmental Quality Standards
NESPAK	–	National Engineering Services Pakistan
NGO	–	nongovernment organization
NHA	–	National Highways Authority
NO	–	nitrogen oxide
NOC	–	no-objection certificate
NSL	–	natural surface level
NSR	–	noise sensitive receiver
NTC	–	National Trade Corridor
OP	–	operational policy
OSHA	–	Occupational Safety and Health Administration
PAP	–	project affected person
PEPA	–	Pakistan Environmental Protection Act
PEPC	–	Pakistan Environmental Protection Council
PM	–	particulate matter
PNCS	–	Pakistan National Conservation Strategy
POP	–	persistent organic pollutant

PPAF	–	Pakistan Poverty Alleviation Fund
PPC	–	Pakistan Penal Code
PRC	–	People's Republic of China
RE	–	resident engineer
REA	–	rapid environmental assessment
ROW	–	right-of-way
SC	–	supervision consultant
SMART	–	self-monitoring and reporting tool
SO	–	sulfur oxide
SPS	–	Safeguard Policy Statement
SSEMP	–	site specific environmental management plan
TA	–	technical assistance
TOR	–	terms of reference
TSS	–	total suspended solids
UBC	–	Uniform Building Code
UC	–	Union Council
UNFCCC	–	United Nations Framework Convention on Climate Change
USEPA	–	United States Environmental Protection Agency
WHO	–	World Health Organization

Annex IV: Predicted Noise Level for Sensitive Receptors Located at the Distance of 20 meters

Activity	Source	Typical Peak Sound Level in Work Cycle (Lm)	Typical MInimum Sound Level in Work Cycle (Lb)	Lm-Lb	Fraction of time spent at peak in work Cycle (Ta/T)	Equivalency Factor (E.f)	Noise level emissions Leq (h)=E.L =Lj+EF	Estimated Distance from Equipment to Observer (D) E	Usage Factor (UF)	Equipment Leq(h) at Receptor (dbA) Leq (h)	Leq(h) Site at Receptor db(A)
Clearing, earthwork, foundation, piling, super structure etc.	Wheel Loader	90	83	7	1	0	90	20	0.4	84	107
	Grader	90	82	8	1	0	90	20	0.4	84	
	Vibration roller	86	82	4	1	0	86	20	0.4	80	
	2-wheel vibration roller	81	85	-4	1	0	81	20	0.4	75	
	3-wheel roller	81	85	-4	1	0	81	20	0.4	75	
	Tire roller	76	85	-9	1	0	76	20	0.6	71	
	Bulldozer	86	85	1	1	0	86	20	0.5	81	
	Tire Pen-dredger	84	85	-1	1	0	84	20	0.3	76	
	Sprayer	87	80	7	1	0	87	20	0.4	81	
	Power Generator	98	85	13	1	0	98	20	0.2	89	
	Impact drill	87	85	2	1	0	87	20	0.2	78	
	Impact piling	112	80	32	1	0	112	20	0.5	107	
	Concrete Mixer	92	85	7	1	0	92	20	0.2	83	
	Truck	91	55	36	1	0	91	20	0.4	85	
	Concrete Pump	85	84	1	1	0	85	20	0.4	79	
	Mobile Lift	96	84	12	1	0	96	20	0.4	90	
	Pneumatic Hammer	98	84	14	1	0	98	20	0.4	92	
	Breaker	84	80	4	1	0	84	20	0.4	78	
	Pneumatic Spanner	95	85	10	1	0	95	20	0.3	87	
	Steel Cutting Machine	85	85	0	1	0	85	20	0.4	79	
	Steel Bending Machine	80	80	0	1	0	80	20	0.5	75	
	Water Bowzer	80	80	0	1	0	80	20	0.2	71	
	Fuel Pump	82	82	0	1	0	82	20	0.4	76	
	Dumpers	70	82	-12	1	0	70	20	0.4	64	
	Excavator	70	72	-2	1	0	70	20	0.4	64	
	Dewatering Pump (Diesel)	77	77	0	1	0	77	20	0.5	72	
	Drills	80	77	3	1	0	80	20	0.5	75	
	Trailer	84	84	0	1	0	84	20	0.6	79	

Predicted Noise Level for Sensitive Receptors Located at the Distance of 40 meters

Activity	Source	Typical Peak Sound Level in Work Cycle (Lm)	Typical MInimum Sound Level in Work Cycle (Lb)	Lm-Lb	Fraction of time spent at peak in work Cycle (Ta/T)	Equivalency Factor (E.f)	Noise level emissions Leq (h)=E.L =Lj+EF	Estimated Distance from Equipment to Observer (D) E	Usage Factor (UF)	Equipment Leq(h) at Receptor (dbA) Leq (h)	Leq(h) Site at Receptor db(A)
Clearing, earthwork, foundation, piling, super structure etc.	Wheel Loader	90	83	7	1	0	90	40	0.4	78	101
	Grader	90	82	8	1	0	90	40	0.4	78	
	Vibration roller	86	82	4	1	0	86	40	0.4	74	
	2-wheel vibration roller	81	85	-4	1	0	81	40	0.4	69	
	3-wheel roller	81	85	-4	1	0	81	40	0.4	69	
	Tire roller	76	85	-9	1	0	76	40	0.6	65	
	Bulldozer	86	85	1	1	0	86	40	0.5	75	
	Tire Pen-dredger	84	85	-1	1	0	84	40	0.3	70	
	Sprayer	87	80	7	1	0	87	40	0.4	75	
	Power Generator	98	85	13	1	0	98	40	0.2	83	
	Impact drill	87	85	2	1	0	87	40	0.2	72	
	Impact piling	112	80	32	1	0	112	40	0.5	101	
	Concrete Mixer	92	85	7	1	0	92	40	0.2	77	
	Truck	91	55	36	1	0	91	40	0.4	79	
	Concrete Pump	85	84	1	1	0	85	40	0.4	73	
	Mobile Lift	96	84	12	1	0	96	40	0.4	84	
	Pneumatic Hammer	98	84	14	1	0	98	40	0.4	86	
	Breaker	84	80	4	1	0	84	40	0.4	72	
	Pneumatic Spanner	95	85	10	1	0	95	40	0.3	81	
	Steel Cutting Machine	85	85	0	1	0	85	40	0.4	73	
	Steel Bending Machine	80	80	0	1	0	80	40	0.5	69	
	Water Bowzer	80	80	0	1	0	80	40	0.2	65	
	Fuel Pump	82	82	0	1	0	82	40	0.4	70	
	Dumpers	70	82	-12	1	0	70	40	0.4	58	
	Excavator	70	72	-2	1	0	70	40	0.4	58	
	Dewatering Pump (Diesel)	77	77	0	1	0	77	40	0.5	66	
	Drills	80	77	3	1	0	80	40	0.5	69	
	Trailer	84	84	0	1	0	84	40	0.6	73	

Predicted Noise Level for Sensitive Receptors Located at the Distance of 60 meters

Activity	Source	Typical Peak Sound Level in Work Cycle (Lm)	Typical MInimum Sound Level in Work Cycle (Lb)	Lm-Lb	Fraction of time spent at peak in work Cycle (Ta/T)	Equivalency Factor (E.f)	Noise level emissions Leq (h)=E.L =Lj+EF	Estimated Distance from Equipment to Observer (D) E	Usage Factor (UF)	Equipment Leq(h) at Receptor (dbA) Leq (h)	Leq(h) Site at Receptor db(A)
Clearing, earthwork, foundation, piling, super structure etc.	Wheel Loader	90	83	7	1	0	90	60	0.4	74	98
	Grader	90	82	8	1	0	90	60	0.4	74	
	Vibration roller	86	82	4	1	0	86	60	0.4	70	
	2-wheel vibration roller	81	85	-4	1	0	81	60	0.4	65	
	3-wheel roller	81	85	-4	1	0	81	60	0.4	65	
	Tire roller	76	85	-9	1	0	76	60	0.6	62	
	Bulldozer	86	85	1	1	0	86	60	0.5	71	
	Tire Pen-dredger	84	85	-1	1	0	84	60	0.3	67	
	Sprayer	87	80	7	1	0	87	60	0.4	71	
	Power Generator	98	85	13	1	0	98	60	0.2	79	
	Impact drill	87	85	2	1	0	87	60	0.2	68	
	Impact piling	112	80	32	1	0	112	60	0.5	97	
	Concrete Mixer	92	85	7	1	0	92	60	0.2	73	
	Truck	91	55	36	1	0	91	60	0.4	75	
	Concrete Pump	85	84	1	1	0	85	60	0.4	69	
	Mobile Lift	96	84	12	1	0	96	60	0.4	80	
	Pneumatic Hammer	98	84	14	1	0	98	60	0.4	82	
	Breaker	84	80	4	1	0	84	60	0.4	68	
	Pneumatic Spanner	95	85	10	1	0	95	60	0.3	78	
	Steel Cutting Machine	85	85	0	1	0	85	60	0.4	69	
	Steel Bending Machine	80	80	0	1	0	80	60	0.5	65	
	Water Bowzer	80	80	0	1	0	80	60	0.2	61	
	Fuel Pump	82	82	0	1	0	82	60	0.4	66	
	Dumpers	70	82	-12	1	0	70	60	0.4	54	
	Excavator	70	72	-2	1	0	70	60	0.4	54	
	Dewatering Pump (Diesel)	77	77	0	1	0	77	60	0.5	62	
	Drills	80	77	3	1	0	80	60	0.5	65	
	Trailer	84	84	0	1	0	84	60	0.6	70	

Predicted Noise Level for Sensitive Receptors Located at the Distance of 80 meters											
Activity	**Source**	**Typical Peak Sound Level in Work Cycle (Lm)**	**Typical MInimum Sound Level in Work Cycle (Lb)**	**Lm-Lb**	**Fraction of time spent at peak in work Cycle (Ta/T)**	**Equivalency Factor (E.f)**	**Noise level emissions Leq (h)=E.L =Lj+EF**	**Estimated Distance from Equipment to Observer (D) E**	**Usage Factor (UF)**	**Equipment Leq(h) at Receptor (dbA) Leq (h)**	**Leq(h) Site at Receptor db(A)**
Clearing, earthwork, foundation, piling, super structure etc.	Wheel Loader	90	83	7	1	0	90	80	0.4	72	95
	Grader	90	82	8	1	0	90	80	0.4	72	
	Vibration roller	86	82	4	1	0	86	80	0.4	68	
	2-wheel vibration roller	81	85	-4	1	0	81	80	0.4	63	
	3-wheel roller	81	85	-4	1	0	81	80	0.4	63	
	Tire roller	76	85	-9	1	0	76	80	0.6	59	
	Bulldozer	86	85	1	1	0	86	80	0.5	69	
	Tire Pen-dredger	84	85	-1	1	0	84	80	0.3	64	
	Sprayer	87	80	7	1	0	87	80	0.4	69	
	Power Generator	98	85	13	1	0	98	80	0.2	77	
	Impact drill	87	85	2	1	0	87	80	0.2	66	
	Impact piling	112	80	32	1	0	112	80	0.5	95	
	Concrete Mixer	92	85	7	1	0	92	80	0.2	71	
	Truck	91	55	36	1	0	91	80	0.4	73	
	Concrete Pump	85	84	1	1	0	85	80	0.4	67	
	Mobile Lift	96	84	12	1	0	96	80	0.4	78	
	Pneumatic Hammer	98	84	14	1	0	98	80	0.4	80	
	Breaker	84	80	4	1	0	84	80	0.4	66	
	Pneumatic Spanner	95	85	10	1	0	95	80	0.3	75	
	Steel Cutting Machine	85	85	0	1	0	85	80	0.4	67	
	Steel Bending Machine	80	80	0	1	0	80	80	0.5	63	
	Water Bowzer	80	80	0	1	0	80	80	0.2	59	
	Fuel Pump	82	82	0	1	0	82	80	0.4	64	
	Dumpers	70	82	-12	1	0	70	80	0.4	52	
	Excavator	70	72	-2	1	0	70	80	0.4	52	
	Dewatering Pump (Diesel)	77	77	0	1	0	77	80	0.5	60	
	Drills	80	77	3	1	0	80	80	0.5	63	
	Trailer	84	84	0	1	0	84	80	0.6	67	

Predicted Noise Level for Sensitive Receptors Located at the Distance of 300 meters

Activity	Source	Typical Peak Sound Level in Work Cycle (Lm)	Typical MInimum Sound Level in Work Cycle (Lb)	Lm-Lb	Fraction of time spent at peak in work Cycle (Ta/T)	Equivalency Factor (E.f)	Noise level emissions Leq (h)=E.L =Lj+EF	Estimated Distance from Equipment to Observer (D) E	Usage Factor (UF)	Equipment Leq(h) at Receptor (dbA) Leq (h)	Leq(h) Site at Receptor db(A)
Clearing, earthwork, foundation, piling, super structure etc.	Wheel Loader	90	83	7	1	0	90	300	0.4	60	84
	Grader	90	82	8	1	0	90	300	0.4	60	
	Vibration roller	86	82	4	1	0	86	300	0.4	56	
	2-wheel vibration roller	81	85	-4	1	0	81	300	0.4	51	
	3-wheel roller	81	85	-4	1	0	81	300	0.4	51	
	Tire roller	76	85	-9	1	0	76	300	0.6	48	
	Bulldozer	86	85	1	1	0	86	300	0.5	57	
	Tire Pen-dredger	84	85	-1	1	0	84	300	0.3	53	
	Sprayer	87	80	7	1	0	87	300	0.4	57	
	Power Generator	98	85	13	1	0	98	300	0.2	65	
	Impact drill	87	85	2	1	0	87	300	0.2	54	
	Impact piling	112	80	32	1	0	112	300	0.5	83	
	Concrete Mixer	92	85	7	1	0	92	300	0.2	59	
	Truck	91	55	36	1	0	91	300	0.4	61	
	Concrete Pump	85	84	1	1	0	85	300	0.4	55	
	Mobile Lift	96	84	12	1	0	96	300	0.4	66	
	Pneumatic Hammer	98	84	14	1	0	98	300	0.4	68	
	Breaker	84	80	4	1	0	84	300	0.4	54	
	Pneumatic Spanner	95	85	10	1	0	95	300	0.3	64	
	Steel Cutting Machine	85	85	0	1	0	85	300	0.4	55	
	Steel Bending Machine	80	80	0	1	0	80	300	0.5	51	
	Water Bowzer	80	80	0	1	0	80	300	0.2	47	
	Fuel Pump	82	82	0	1	0	82	300	0.4	52	
	Dumpers	70	82	-12	1	0	70	300	0.4	40	
	Excavator	70	72	-2	1	0	70	300	0.4	40	
	Dewatering Pump (Diesel)	77	77	0	1	0	77	300	0.5	48	
	Drills	80	77	3	1	0	80	300	0.5	51	
	Trailer	84	84	0	1	0	84	300	0.6	56	

Annex V: Chance Find Procedures

CHANCE FIND PROCEDURES

Project involves deep excavation, especially, for bridges construction; therefore, possibility of chance find is envisaged. However, in case of any chance find, the contractor will immediately report through Supervision Consultant to Directorate General (DG) of Archeological Department, Government of Pakistan to take further suitable action to preserve those antiques or sensitive remains. Representative of the DG will visit the site and observed the significance of the antique, artifact and Cultural (religious) properties and significance of the project. The report will be prepared by representative and will be given to the DG. The documentation will be completed and if required suitable action will be taken to preserved those antiques and sensitive remains.

In case of any artifact, antiques and sensitive remains are discovered, chance find procedures should be adopted by contractor workers as follows:

- Stop the construction activities in the areas of chance find;
- Delineate the discovered site or area;
- Consult with the local community and provincial Archeological Department
- The suggestion of the local communities and the concerned authorities will be suitable incorporated during taking the preventive measures to conserved the antique, artifact 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;
- After stopping work, the contractor must immediately report the discovery to the Supervision Engineer.

The contact Address of Archeology Department is given below:
Archeology and Museum Department
1st Floor, Block-4, Sitara Market,
G-7 Markaz, Islamabad
Tel: 051-9206236
051-2201385

E-Mail: doam@cyber.net.pk

Annex VI:

Covid-19 Management Plan

On February 11, 2020 the World Health Organization announced an official name for the disease that is causing the 2019 novel coronavirus outbreak, first identified in Wuhan China. The new name of this is coronavirus disease 2019, abbreviated as COVID-19. In COVID-19, 'CO' stands for 'corona,' 'VI' for 'virus,' and 'D' for disease. Formerly, this disease was referred to as "2019 novel coronavirus" or "2019-nCoV".

Coronaviruses are a large family of viruses. Some cause illness in people, and others, such as canine and feline coronaviruses, only infect animals. Rarely, animal coronaviruses that infect animals have emerged to infect people and can spread between people. This is suspected to have occurred for the virus that causes Coronavirus Disease 2019 (COVID-19). Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) are two other examples of coronaviruses that originated from animals and then spread to people.

The risk of exposure to COVID-19 is no different for employees of Employer, Engineer, Contractor, and suppliers than for the general population. Contractor, therefore, must consider the physical well-being and safety of all the persons entitled to be on the Site and follow reasonable guidelines and recommendations of Government authorities and healthcare professionals. As experience has shown in other countries, confirmed cases of COVID-19 expand exponentially if health and safety controls are left unheeded.

Contractor should enforce all health and safety procedures at Site including sanitary protocols, proper hygiene, social distancing, use of personal protective equipment (PPE), toolbox talks on special COVID-19 requirements, and prompt reporting of health issues related to COVID-19. Contractors must put safeguards in place to keep workers exposed to COVID-19 away from Site for at least 14 days after the last potential exposure.

WHO declared the COVID-19 as a Public Health Emergency of International Concern (PHEIC) in January 2020 and afterwards announced the COVID-19 outbreak as pandemic on 11th March 2020 due to the widespread of the disease in 114 countries at that time. WHO Director General urged the countries to take action now to stop the disease.

The rapid spread of COVID-19 hits all the provinces of Pakistan Sindh, Balochistan, Punjab & Khyber Pakhtunkhwa including the Gilgit Baltistan and Azad Jammu & Kashmir. The prevailing virus creates the menacing and distressing situation when it arrived around the closed proximities of the Project Area.

Government of Pakistan has launched the National Action Plan for COVID-19 Pakistan to combat the challenge of prevailing virus, also available at https://www.nih.org.pk/wp-content/uploads/2020/03/COVID-19-NAP-V2-13-March-2020.pdf. The Government of Pakistan has launched the real-time data portal for COVID-19 http://covid.gov.pk/. These measures are mostly relating to the containment and awareness and capacity building. Besides this COVID-19 daily situation report is also available at https://www.nih.org.pk/wp-content/uploads/2020/04/COVID-19-Daily-Updated-SitRep-03-April-2020.pdf.

All the stakeholders are on board to jointly prevent/ limit/ control the spread of COVID-19. All of the staff is required to take precautionary measures as well as maintain social distances. The use of thermal guns for checking every single person body temperature, placement of relevant flyers and disinfection spray inside of all the containers are few of the measures to combat COVID-19.

OBJECTIVE

Following are the objectives of this report to jointly prevent / limit/ control the spread of COVID-19 at Site that can hamper the progress of proposed Project:

1. To enhance understanding of the evolving COVID-19;
2. To share knowledge on COVID-19 and preparedness measures being implemented at Site;
3. To generate recommendations for adjusting COVID-19 containment and response measures; and
4. Outline the measures taken at Site. The advised measures will help all the stakeholders to plan their work continuity in response to the COVID-19.

Due to the evolving situation of the COVID-19, this document should be read in conjunction with the latest relevant advisories issued by WHO (especially "Getting your workplace ready for COVID-19, 3 March 2020") and Government of Pakistan.

WHAT IS CORONA VIRUS (COVID-19)

The COVID-19 belongs to a family of viruses known as the Coronaviruses, which can cause illnesses ranging from the common cold to more severe diseases, such as the Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS)[23].

SYMPTOMS

The symptoms of the COVID-19 are similar to that of regular pneumonia. Typical symptoms include;

- Fever;
- Cough;
- Difficulty in breathing;
- Pneumonia;
- Runny nose;
- Sore throat; and
- Feeling of being unwell.

MODE OF SPREAD

Infected person – person transmission; Infected people can spread COVID-19 through their respiratory secretions via droplets produced when an infected person coughs or sneezes, similar to how influenza and other respiratory pathogens spread. The spread from person-to person is most likely among close contacts (about 6 feet);

- Infected animals' dead or Alive;
- Air by coughing and sneezing;
- Close personal contact, such as touching or shaking hands;
- Touching an object or surface with a virus on it; and

[23] Source: World Health Organization

- Touching your mouth nose or eyes before washing your hands.

GENERAL STANDARDIZED PRECAUTIONARY MEASURES

Following measures/recommendations are suggested as a general guidance to be followed for the protection of potential impacts of COVID-19:

Since, there is no vaccine available to protect against human Coronavirus infections. Therefore, transmission can be prevented through following measures:

- Cover your mouth while cough or sneeze;
- Avoid close contact with people who are sick;
- Avoid the use of hard soap;
- Wash your hands often with liquid soap and water for at least 20 seconds;
- All the employees should ensure sanitization of hands at appropriate time;
- Avoid touching your eyes, nose, and mouth with unwashed hands;
- If you are concerned about your symptoms you should see your health care provider at site or in office;
- Use of Personal Protective Equipment (PPE) according to risk (a surgical or N95 mask);
- Do not spit, wrap your oral and nasal secretion with tissue and throw it in a covered dustbin;
- Balance your nutrition and exercise moderately;
- Sterilization / disinfection of medical devices at Site dispensaries; and
- Do not touch, buy or eat wild animals (gamey). Try to avoid visiting markets that sell such animals.

PROJECT SITE SPECIFIC PRECAUTIONARY MEASURES

Measures for protecting staff and labour from exposure to, and infection with, the COVID-19 depend on the type of work being performed and exposure risk, including potential for interaction with infectious people and contamination of the work environment. Regardless of specific exposure risks, following are the main actions that have been jointly taken at Site to combat the COVID-19:

Employer's Side

Employer should issue the notification containing the precautionary measures in the light of GoS guidelines to be implemented at Site. Upon receiving the Employer notification all the mentioned precautionary measures will be communicated to Engineer staff for compliance. Employer technical staff is also complying with the GoS guidelines and Contractor suggestion to control the spread of COVID-19 at Site in the best interest of the Project and country.

Consultant's Side

Consultant's top management will issue the orders in the light of GoS guidelines containing the precautionary measures to control the spread of COVID-19 for the staff working at Site. Consultant staff at Site will fully complying with the orders including photographic evidence. Considering the severity of the prevailing virus Engineer devised the SOP containing precautionary action against the potential risk of novel corona virus.

Besides, above Consultant will ensure the following precautionary measures at Site.

- Adequate signage and information at all entrances and exits showing what is Corona Virus, how it spreads, what are the symptoms, standard precautions;

- The awareness session for the Contractor staff is equally important as of Consultant staff to combat the COVID-19 at Site. The Consultant will ensuring that Contractor is arranging such session at Site from time to time to reduce the potential risk of COVID-19. Further, all the newly inducted and existing staff have been given HSE training by the Consultant & Contractor.

Contractor's Side

Contractor will communicate various precautionary measures to Employer and Engineer through letters to control the spread of COVID-19 at Site. Following are the major steps to be taken by the Contractor:

- Contractor will convey the instructions and requirements of its superior unit for the prevention and control of COVID-19 epidemic at Site.
- Contractor will establish a special organization for epidemic prevention and control on the Project Site that is responsible for arranging, implementing, publicizing and supervising the epidemic prevention and control measures.
- Launch the plan for epidemic prevention and control on the project Site that includes:
    - All personnel in temporary camp are required to wear masks;
    - Contractor personnel incharge of Site to wear masks;
    - Arranged special personnel to measure and record the temperature of all personnel when entering or leaving the temporary camp;
    - If any person with fever, cold and other symptoms are found, they will be admonished to go home for isolation and asked about the development of the disease every day; and
    - Propagate and implement the epidemic prevention measures for the staffs and labours and warn them not to go outside and home as much as possible.
- All these meetings should carried out through video conference.

Contractor is not limited to the above precautionary measures but practicing and implementing the following;

- Contractor will prepare a pamphlet for the awareness of Site staff to combat the COVID-19. It will also place/posted at strategic points at Site.
- Launch awareness campaign to inform all the staff and labour about the coronavirus, to use facemask, hand hygiene, cough etiquette, and avoidance of close contact with animals and consumption of their raw products.
- Everyday awareness speech in English and Urdu in the temporary camp.
- All the employees are not allowed to go outside of the Project Area or on vacation to their homes and on daily basis visit to sites;
- Contractor will provide medical masks and antibacterial liquid hand wash to all personnel.
- Contractor will prepare the isolation facility at Site and provided three isolated rooms for such patients inside the temporary camp. Each room have three beds, oxygen cylinder, sanitizers, isolation kit, hand wash.
- Thermal scanning will be carried out continuously in the morning for everybody at the main gate of temporary camp.
- Record will be maintained for everyone that includes the temperature value of each person with their names, every morning and afternoon go to each department for scanning separately and noted down their name with temperature values.
- Contractor carry out disinfectant spray on daily basis morning and afternoon in each office and rooms and all the area of the camp.
- SSWMB and Consultant staff will also requested by Contractor to do not interact physically rather through electronically by emails or video conferencing.

RECOMMENDATIONS FOR THE CONTROL OF COVID-19 AT SITE

To Avoid Transmission

For all personnel at Site, it is always a good to practice the following precautionary measures:

- Workers to remain at least two meters apart from each other at all times (social distancing) – i.e. spread out and reduce the number of people working together in one area of the site;
- Avoid eating lunch in the form of group in available mess/canteens at Site;
- Close site canteens/ food preparation and eating areas (avoid gatherings) – workers to bring their own prepared lunch to site and eat alone e.g. in their van, car, or in an open space;
- Avoid in-person meetings if possible. In the case that an in-person meeting is unavoidable, make sure to have it in a well-ventilated area with sufficient space for attendees to distance themselves from one another. For meetings such as toolbox talks, consider breaking them up into smaller group meetings versus one large meeting;
- Introduce enhanced cleaning procedures across the Site and touch points e.g. office equipment, plant and machinery controls, taps/toilet/washing facilities, handrails;
- Stagger start times on site to avoid congestion in entrance areas;
- Reduce the number of people on site inductions at any one time and hold them outdoors if possible;
- Stop workers moving across various sites (potential for cross contamination);
- No outsiders should be at the Project Site;
- Contractor, Consultant and Employer personnel are advised to avoid travelling and in case traveling is unavoidable, prior approval from the management should be essential. In case of travelling, the above mentioned measures need to be strictly followed by the traveller;
- Prompt identification and isolation of potentially infectious individuals is a critical first step in protecting workers and other Site staff. An isolated area should be available at Site to immediately isolate suspected person, as it is most important to stop its spread at Site.
- Rapid Response Team should be formed and be informed immediately in case of suspect and confirmed case of COVID-19.
- Medical team at Site should separate the suspected person displaying fever, cough or difficulty breathing from other personnel; and
- If a person has had close contact with an individual that has confirmed COVID-19, that person will not be allowed to return to the Site until he/she has been symptom free for 14 days.
- Clean and fumigate all the workplaces at Site on daily basis;
- Ask people to stay at home if they have fever, cough, difficulty in breathing, runny nose, sore throat as per organizational rules;
- An immediate replacement of solid soap with liquid anti-bacterial soap bottles may be appropriate.
- Provision of alcohol-based hand sanitizer need to available for all staff;
- Clean the religious places carpets and rugs. Have them washed in place over the weekend and then do regular cleaning;
- Have the cleaners/ maintenance crews regularly clean surfaces that are touched frequently by personnel with disinfectants such as in and out doors;
- Fresh medical tests of staff working should be carried out at Site;

- Dispose of all contaminated waste (gloves, paper, swab handles, etc.) into biohazard waste bags for disposal;
- Ensure that panic is not created. In fact the posters should start with statements such as do not panic and fear the virus but know and prevent; and
- Ensure proper ventilation system for all the personnel at Site.

Use of Personal Protective Equipment (PPEs)

- Necessary PPE should be available at Site all the times and are being issued to each personnel at Site;
- Practice of using masks is also being ensured by all parties at Site (a surgical or N95 masks);
- Re-usable PPE should be thoroughly cleaned after use and not shared between workers. Single use PPE should be disposed of so that it cannot be reused;

Outside Visitors

- Visitors should enter with strictly wearing visitors card;
- Ensure sanitization of hands;
- All parties should ensure that the sick persons should be wearing a surgical or N95 masks;
- Note down the complete information of outsiders before entrance;
- Proper screening should be carried out before entering the Site;
- Refrain from handshakes. Rather than shaking hands, visitors may explain why handshakes can contribute to the risk of spread;
- Attempt to maintain a general six (6) feet distance between themselves. This will be challenging to follow at all times but it is Engineer recommendation to follow;
- Refrain from and/or limit touching of workplace surfaces; and
- In addition to these on-site procedures, it is advised to follow their respective organizational instructions related to Site visits.

Annex VII: Sample Letter

Ref: _____ May 14, 2020

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Dualisation/Improvement of Shikarpur –Rajanpur Section of N 55 (Indus Highway)

Stakeholder Consultation

National Highway Authority (NHA) is carrying out the Dualisation/Improvement of Indus Highway- N55 Additional Carriageway Project (Shikarpur-Rajanpur Section).

NHA has hired the services of National Engineering Services Pakistan (NESPAK) to conduct Feasibility study, detailed design including the Environmental study of the project. Total length of the proposed section of N55 is approximately 222 kilometers and it passes through the districts of Shikarpur, Kashmore in Sindh and Rajanpur in Punjab province. Alignment map of the project is attached. As a part of Environmental Studies stakeholder consultation is a mandatory requirement to ensure that the concerns and apprehensions of the stakeholders can be identified, clarified and addressed.

As a standard practice, Environmental Team visits the stakeholder and conduct consultation meetings/interview/gathering. However, in the current situation of lock down due to Pandemic (Covid-19), following the Governments directives and SOPs it is not possible to visit the office and conduct consultation meetings. Therefore, following the SOPs all consultations shall be carried out keeping social distancing through phone calls, conference calls, Skype call utilizing the e-media. it is requested to please depute relevant persons representing your department/organization and share telephone number, skype Id, e-mail address so that we can arrange the consultation meeting through e-media.

Yours faithfully,

for National Engineering Services Pakistan (Pvt.) Limited

(_____)

NHA

Encl: Alignment map of the project


NORTH
N55
END POINT
RAJANPUR
DERA BUGTI
PUNJAB
BALOCHISTAN
INDUS RIVER
N65
ROJHAN
N5
PAKISTAN
DERA MURAD JAMALI
222 KM
BAKSHSHAPUR
KASHMORE
GHUSPUR
KANDHKOT
SHIKARPUR
START POINT
SHIKARPUR
SINDH
INDIA
LEGENDS
PROJECT ALIGNMENT
NATIONAL HIGHWAY
OTHER ROADS
RIVER
PROVINCIAL BORDER
INTERNATIONAL BORDER

Annex VIII: Photolog

Pictorial Description of the Project Area

Site Survey Photos Rojhan to Rajanpur (Km 535-604)

RajanPur City Area (Starting Point)

Affected Structures within ROW at Kotla Nasir (Km 593)

Kotla Nasir City Area

Populated Area Along the Existing Road (**Kotla Nasir**)

Mosque located within 30m form Existing Alignment at **Kotla Nasir**

Mosque located within 30m of ROW at **Kotla Nasir**

Kot Bahadur City Area

Series of Electric Poles within ROW

Area Confined with Cotton Growing Area at **Kot Bahadur**

Euclayptus dominated area at either side of ROW at **Kot Bahadur (Km 593)**

Arable cinfined along the ROW

Euclayptus dominated area at either side of ROW at **Kot Bahadur (Km 590-592)**

Mosque Located at Km 581 at Kot Kot Bahadur

Orchard Growing Area (dominated by Mango Trees at Km 581-582) at Kot Bahadur

Live stock farm at Km 581, located at around 18km to Rjanpur

Linear Plantation of Ecualyptus Trees at **MozaGayamal Area**

Linear Planation of Eucalyptus Trees at MozaGayamal at Km 577

Water Pond Located Adjacent to ROW **at Basti Bajwa**

Petrol Pump at **Basti Bajwa** adjacent to ROW

Moza Gayamal Commercial area at Km 577-78

School Located adjacent to ROW (at **Miran Pur City Area**)

Wheat Stockyard at DirMusarrat Nazir Mazari at Km555 (**Bangla Hidayat Area**)

Miran Pur City Area at Km 548

Cotton Growing Area at **Bangla Hidayat**

Mosque located adjacent to ROW (**at Shamsabad**)

Dense Cotton growing area **at ShamsaAbabd**

Basti Lanjwani area confined with shops and eucalptus trees along the ROW

Shops across the adjecnet existing road at **Shamsabad City Area**

Sugar Cane crops growing area at **Umar Kot**

Shamsabad Area

Boundary wall of Police Station adjacent located around 7-10m from the existing alignment

Local inhabitants invloved in small scale business

Kashmore to Rojhan Section

Open Levelled land

Nomadic People living aroung the exsiting alignment

Railway line crossing at aroung 50-70m from exsisting alingment

Nomadic People living around the road within 250-30 m

Kandhkot to Kashmore

Dhakan Bangla Area (km 478)

Graveyard consisitng of 25-30 graves located adjacent to the existing raod at **Bakhsha Pur**

Grave yard along the N-55 **at Bakhsha Pur City**

Railway track along the exsiting alignment around 10-15m from N-55

Railway Phattak adjacent to proposed dualized section of N-55 at Bakhsha Pur City

Mosque located adjacent to N-55 road at **Baskhsha Pur City (Zargori Stop)**

Main Baskhsha Pur City Area

Water logged area (saline water bodies at different locations) at Bakhsha Pur City area

Police Checkpost at **Bangalwar Area**

Large Area confined with water logging at **Goth Nawab Khan**

Affected structures at Kadhkot Area

Ghoospur City Area

Water Logged area at Ghoospur city

Density of trees at the existing water bodies (saline water area) along the main N-55 Highway

Arable land utilized along the water logged areas at different patches at Ghoospur area

Mosques located along the N-55 highway at Ghoos Pur Area

Canal bridge at Ghoos pur Area
Kandhkot to Shikarpur

Mosques located adjacent to road alignment at Karam Pur Area

Eclectirc poles located along the road alignment

Canal bridge at Karam Pur Area

Police Checkpost along the N-55 highway at Karam Pur Area

Saline water body confined with scattered bushes along the existing alignemnet

Karam Pur city area

Commercial structures at around 10-15m from the N-55 highway

Rice Cultivated Area

Police Station at Napar Ghot (Karam Pur)

Water Logged areas at Karam Pur Areas

Densely populated saplings and bushes along the n-55 highway

Police station adjecent to existing alignment at **Napar Ghot** (Distt Shikarpur)

PARCO office **at Faizo Laro Distt Shikarpur**

Commercial structures along the N-55 at Faizo Laro (Ghot Dado Khan)

Mosque across the exsiting alignment at Rahim Abad Laro

Large sized pond areas confined with bushes at Rahim Abad Laro

Commercial Structures along the N-55 Highway at **Rahimabad Laro**

Local bricks making area at **Rahimabad Laro**

Mosque located adjacent to ROW at Khan Pur Area

Rice mill area across the N-55 highway at Khan Pur Area

Khan Pur City Area

Rice Cultivated area along the road alignment at Khan Pur city area

Mosques Located at Shikarpur Area, adjacent to ROW

Small large sized water logged patches at different locations Shikarpur areas

Shikar pur Area

Toll Plaza, Shikar Pur