

## **Due Diligence Report**

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Date: May 2022

**PAK: National Disaster and Risk Management Fund Loan No. 3473-PAK**

**Provision of Advance Hydrological Equipments and Capacity Building on Real Time Flow Monitoring and Advance Measurement Technique**

**Irrigation Department, Government of Khyber Pakhtunkhwa**

**(Cost Rs. 297.00)**

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**Asian Development Bank**

## **LIST OF ABBREVIATION**

ADB	Asian Development Bank
ADPC	Acoustic Doppler Current Profiler
COI	Corridor of Impact
DDR	Due Diligence Report
DDMA	District Disaster Management Authority
ESMS	Environmental and Social Management System
EWS	Early Warning System
FGD	Focus Group Discussions
GoP	Government of Pakistan
GRM	Grievance Redressal Mechanism
IR	Involuntary Resettlement
IP	Indigenous People
NDRMF	National Disaster & Risk Management Fund
NGO	Non-Governmental Organization
PMD	Pakistan Meteorological Department
PDMA	Provincial Disaster Management Authority
RoW	Right of Way
RD	Reduced Distance
SPS	Safeguard Policy Statement
ToR	Terms of Reference

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## **1. Introduction**

1. National Disaster Risk Management Fund (NDRMF) is institutionalize to make Pakistan resilient against disasters by strengthening the government and private institutions ability to respond to future disasters triggered by natural hazards. NDRMF focuses on: (i) disaster risk reduction; (ii) design, development and seeding of disaster risk financing strategies and instruments; and (iii) partnerships with other organizations to provide relief and recovery support.

2. NDRMF supports existing government entities and civil society organizations, involved in disaster risk management, including the National Disaster Management Authority (NDMA), Provincial Disaster Management Authorities (PDMA), District Disaster Management Authorities (DDMA), etc.

3. The hydrology Division Peshawar, of Irrigation Department Khyber Pakhtunkhwa is responsible to make the discharge observations and keep records of river and main canal flows in the Province. Currently, about 126 No's different types of gauges i.e. stage gauges installed on Rivers, Nullah, Khwars etc: and rain gauges mounted throughout the Khyber Pakhtunkhwa Province are maintained by the Division. This division collect gauge and discharge data from their concerned gauge station located in the far-flung areas of Khyber Pakhtunkhwa on daily basis and send the data to Divisional office for compilation and further dissemination on demand of any agency for design of different water sector projects.

4. Broad goal of the hydrology Division is to produce a water data bank, synchronize and disseminate accurate and timely information for flood forecasting, warning to improve hydrological network, real time data collection and exchange of information with all stakeholders. The hydrological data bank also helps in disaster prevention, and preparedness for flood management to mitigate the disaster in rainy seasons.

5. This traditional method of recording of data is still being used only in this part of the world and it is widely acknowledged that the Province had outdated installed discharge equipments. Irrigation department Khyber Pakhtunkhwa has prepared plan to modernize its discharge measuring system with latest real time flow monitoring and measuring system to gauge the availability of the water for drought mitigation and flood management in timely manners.

6. Installation & commissioning of advance telemetry system is the only solution to get fast, accurate and reliable real time data and early warning system to minimize the risk triggering disaster. To meet the current challenges under the new global climate changes, sophisticated equipment's for up-gradation of hydro metrological network are essentially required for the collection of accurate and real time data of level and discharges in respect of various gauge. In addition, the system would also electronically store and maintain the data/record of the flows. The real time telemetry system will also be installed on head regulators to electronically monitor the outflows, which could allow assessing and monitoring the availability, the project would ensure the improvement of warning communication and dissemination system.

## **2. Project Description.**

7. The proposed interventions are aligned with NDMP and with the objective to reduce exposure of risks posed by natural hazards and ensure that communities in vulnerable areas are better prepared to respond and cope in disaster situations. The basic purpose of the project is to upgrade and strengthen the existing Hydrological system and infrastructure in order to get accurate dependable gauge and discharge data using real time flood warning system which includes deployments of high accuracy hydro- metrological sensors/gauges.

## 2.1. Scope of Activities

8. In order to achieve and contribute for improvement flood forecasting through telemetry system and early warning activities through KP Irrigation Department, the project activities are proposed as:

- Procurement of telemetry system including data center and remote station units for real time monitoring and reporting of hydro-meteorological parameters line water discharge and rain fall. Telemetry system will have built-in battery bank and powered from solar module. System can report real-time data along with alerts and warnings.
- Procurement of ground water monitoring probes in order to check the behavior of ground water and aquifer.
- Procurement of stream / river gauges/sensor for measurement of water level, discharge and velocity in the PC-I as a prime requirement of the irrigation Department as a whole to update and check behavior of perennial rivers with passage of time & flood events. This device can be used to efficiently, accurately & effortlessly find the actual discharge, water level and velocity of river/streams., however after procurement of this instrument the whole of the Irrigation Department can benefit and update stage discharge data from time to time with less effort saving a lot of time.
- Procurement of meteorological sensors i.e. Rain / precipitation and soil moisture to efficiently find the intensity of rainfall in the targeted areas and sending same information in real time for dissemination of early warning and alerts.
- Procurement of Latest & advance flow measurement equipment's like ADCP & Digital flow probes & capacity building on their usage.



Figure 1: Map of the Province Khyber Pakhtunkhwa

## 2.2. Scope of the Project

9. The modern telemetry system will replace the century old traditional manual gauge reading system. The main objective of the proposed project is to strengthen the capacity of KP Irrigation Department for real-time water flow in rivers and mullahs flowing in the province. These equipments of telemetry system will be installed along existing hydraulic structures I.e.

water gauges and hydraulic gates of water ways. Following activities will be performed to achieve the project objectives:

- Procurement and installation of software for Hydro-meteorological - Real Time Flow Monitoring System & Hosting
- Procurement of Remote Station Unit device (RSU) with Sensors and Accessories Complete - Real Time Flow Monitoring System for Irregular Channels
- Procurement of Remote Station Unit device (RSU) with Sensors and Accessories Complete - Real Time Flow Monitoring System for Regular Channels
- Purchasing and installation of Remote Station Unit device (RSU) with Sensors and Accessories Complete - Real Time Monitoring of Soil Moisture & Temperature
- Surveying & Field Staff Support Equipment. Total station etc
- Advertisement Charges, PC 1 Preparation, Logistics, Any other unforeseen items etc.

### **Water Bodies Name and Locations for Proposed Telemetry System**

S.No	Name Of River	Locations		Co-Ordinates
1	Kabul River	1. 2. 3.	Kabul River at Michni Bridge Kabul River at Motorway Bridge Shahalam River at Charsadda Road	N.34100.2 , E.71227.75 N.340542.30, E.714428.8 N.34.09067, E,71.6082263
2	Panjhora river	1.	Panjhora river at Chickyatana Upper Dir.	N.35921.20 , E.71541060
3	Swat River (Khiali River is part of Swat river)	1. 2. 3.	Swat R Swat River at Totakan Bosak Malakand River at Ayub Bridge Mingora Swat Swat River at Kalam Swat.	N. 343952.09 , E.72739.08 N.343926.7 , E.714535.3 N. 35.48786, E,72.584204
4	Kunhar River	1.	Kunhar River at Kaghan	N.34.7800 , E.73.51997
5	Kurram River	1. 2.	Kurram River at Tal Bridge at Tal. Kurram River at Tal Bridge at Tal.	N,332119.16, E,703244.06 N,332119.16, E,703244.06
6	Tochi River	1.	Tochi River at Baran Dam Feeder Channel.	N,32.953933, E,70.441832
7	Gomal River	1.	Gomal river at south Waziristan.	N.32.104199. E69.889979
8	Chitral River	1.	Chitral River Kauhati Bridge Chitral.	N.355013.3 , E.714722.0
9	Siran River	1.	siran River at Shankari.	N.342411.17, E.73813.76
10	Dor River	1.	Dour river at Rajoia Havelian	N,34.0924, E,73.22429
11	Haro River	1.	Haro River at Jabri Haripur.	N,33.8960, E,73.1680

#### **A. Socioeconomic Condition of the Areas**

10. KPK is the third most populated province in the country, and population was estimated in 2010 as 24.7 million. KP is located in far north of the country, the province covers 10 percent of the total land area and is a home to 13 percent of the country's population spread over seven administrative districts. Majority of the population (83 percent) is rural, averaging 7.6 members per household-well above the national average of 6.6. The literacy rate remains low at 49 percent with more than half of population having no access to tap water while unemployment runs at 8.5 percent.

11. Khyber Pakhtunkhwa (KP) is located in far north of the country, the province covers 10 percent of the total land area and is a home to 13 percent of the country's population spread over seven administrative districts. Majority of the population (83 percent) is rural, averaging 7.6 members per household-well above the national average of 6.6. The literacy rate remains low at 49 percent with more than half of population having no access to tap water while unemployment runs at 8.5 percent.

12. The provincial language is Pashto spoken by the majority of the population as first language; Urdu, the national language, is widely spoken as a second language. However, an English, the official language of Pakistan is mainly used for official and literary purposes.

13. There are many large and small rivers and tributaries which flows on the surface of the province like, River Kabul, Swat River, Chitral River, Panjkora River Siran River and Kunhar River, ultimately these rivers confluence in Indus River at different points.

14. The climate of Khyber Pakhtunkhwa varies immensely for a region of its size. The province stretching southwards from the Baroghil Pass in the Hindu Kush covers almost six degrees of latitude. Dera Ismail Khan is one of the hottest places in South Asia while in the mountains to the north the weather is temperate in the summer and intensely cold in winter. The air is generally very dry; consequently, the daily and annual range of temperature is quite high.

## **B. Consultation and participation**

15. KP Irrigation Department carried consultation with different stake holders and notable of the society. It was consensus among all the stake holders that there should be a modern and latest telemeter system in the province which can provide accurate and timely water flow situation to different departments and every stakeholder. The real time water flow data will be useful for every walk of life from farmers to air lines. KP Irrigation Department carried out the consultation session with different stakeholders and communities and made aware them about the benefit of the project. All walks of society was welcoming for the project.

## **C. Land Use**

16. Telemeter system will be installed as a gadget along with mechanical gauges. There will be no requirement of land as telemeter system is just comprised of mechanical gadgets and computer software. There will be no land use therefore no land use change is anticipated.

## **D. H1.ROW & Col**

17. No land and no Row and Col will be required to install the telemeter system.

## **E. Indigenous Peoples Safeguards**

18. No indigenous people were found in these district of province Sindh, hence, no adverse impacts on any such community are anticipated.

## **F. Screening and Categorization**

19. As described previously, no civil work is involved. No land acquisition and resettlement is involved. Based on the guidelines for the schemes/subproject's categorization of NDRMF ESMS, the proposed schemes fall in Category 'C'.

## **G. Institutional Arrangements**

20. KP Irrigation Department will established a project Management office which will responsible for following:

- 1) GRM will be notified by the KP Irrigation Department and GRM at different districts will be established and community should have knowledge to lodge the complaint.
- 2) Project Director will also establish and notify a committee, who will be responsible for coordination and implementation on Due Diligence Reports.

#### **H. Grievance Redress Mechanism**

21. KP Irrigation Department will establish GRM system in its head office. Complaint registers will be placed in head office and it will be checked on regular basis and the issues/comments will be reported to the management for redresses. All constraints/comments will be reported properly to NDRMF with complete details of disposal.

#### **I. Monitoring and Evaluation**

22. Monitoring of DDR and EMP activities on daily basis are the responsibility of KP Irrigation Department. Internal monitoring will be carried out by NDRMF monitoring wing. Under this project, no external monitoring will be required, the internal monitoring would be enough to meet the safeguard requirement. However Social audit will be carried out by an external M&E consultant firm. The IM reports will be submitted to ADB.

#### **J. Conclusion and Recommendations**

23. Some of the unanimous recommendations by the public emerged out during public consultation are as following:


- a. KP Irrigation Department shall adhere to the scope and original design of the project that has been agreed upon by all the major stakeholders before the start installation of early warning system.
- b. If any unanticipated impacts arise during the project implementation or there is any change in the original design, the FIP shall immediately inform NDRMF and prepare a corrective action plan in accordance with the ESMS/SPS 2009.
- c. NDRMF shall provide support to KP Irrigation Department staff in capacity building to execute the project within the given resources and time.
- d. A committee of public representatives shall monitor the whole project's execution.
- e. Meaningful stakeholder consultation sessions shall be held prior and during installation phase to record and address the social concerns and ensure social acceptability.
- f. Occupational health and safety are the key impacts of the proposed project, which shall carefully be dealt with for both the community and workers.



## Annexure-I

### Involuntary Resettlement impact categorization

Date: 13-04-22

<b>A. Project Data</b> Country/Project No./Project Title: Provision of Advance Hydrological Equipments and Capacity Building on Real Time Flow Monitoring and Advance Measurement Technique			
<b>B. Involuntary Resettlement Category</b> <input type="checkbox"/> New <input type="checkbox"/> Re-categorization — Previous Category <input checked="" type="checkbox"/> No involuntary resettlement involve			
<input type="checkbox"/> Category A	<input type="checkbox"/> Category B	<input checked="" type="checkbox"/> Category C	<input type="checkbox"/> Category FI
<b>C. Comments by Project:</b> Project scope comprises of to produce a water data bank, synchronize and disseminate accurate and timely information for flood forecasting, warning to improve hydrological network, real time data collection and exchange of information with all stakeholders. The hydrological data bank also helps in disaster prevention, and preparedness for flood management to mitigate the disaster in rainy seasons.  Installation & commissioning of advance telemetry system is the only solution to get fast, accurate and reliable real time data and early warning system to minimize the risk triggering disaster. To meet the current challenges under the new global climate changes, sophisticated equipment's for up-gradation of hydro metrological network are essentially required for the collection of accurate and real time data of level and discharges in respect of various gauge.  No resettlement and land acquisition is involved in the project. Project has no negative repercussions on communities rather have social benefits by minimizing human losses and property losses from flooding in and KPK province and will improve socio-economic condition. No physical activity is involved on ground therefore, project has no negative impact of resettlement or land acquisition and no social safeguard policy trigs.			
<b>Field Team:</b>  KPK Irrigation Department		<b>Consultant:</b>	
<b>D. Approval</b> Sheraz Hussain DM (Social Safeguard) 			
<b>Prepared by:</b> Pakistan Metrology Department  Date: 13-04-22		<b>Reviewed/Cleared by:</b> ADB Safeguard Unit: Date:	

#### Involuntary Resettlement Impact Categorization Checklist

Probable Involuntary Resettlement Effects (Please elaborate in the Remarks column)	Yes	No	Not Known	Remarks
	<b>Involuntary Acquisition of Land</b>			

<b>Probable Involuntary Resettlement Effects</b> (Please elaborate in the Remarks column)	<b>Yes</b>	<b>No</b>	<b>Not Known</b>	<b>Remarks</b>
1. Will there be land acquisition?		✓		Project activities are comprised of only installation of telemeter system along the mechanical gauge station therefore, no displacement of people and land acquisition is involved.
2. Is the site for land acquisition known?		✓		Not applicable as there is no land acquisition. Project scope is only an installation of computerized telemeter system.
3. Is the ownership status and current usage of land to be acquired known?		✓		No land acquisition is involved. RoW and land where gauges are installed already property of KP Irrigation Department.
4. Will easement be utilized within an existing right of way (ROW)?		✓		Only soft activities. No infrastructure development involved. Telemeter system will be installed along mechanical gauges.
5. Will there be loss of shelter and residential land due to land acquisition?		✓		No loss of shelter or residential land is disturbing as no land acquisition is involved.
6. Will there be loss of agricultural and other productive assets due to land acquisition?		✓		No loss of agriculture or any productive assets as no land acquisition is involved.
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?		✓		No loss of crops or trees or any fix asset is going to be disturbed due to project execution.
8. Will there be loss of businesses or enterprises due to land acquisition?		✓		No loss of business or any enterprises because land acquisition is not in project scope of work.
9. Will there be loss of income sources and means of livelihoods due to land acquisition?		✓		No negative impacts on livelihoods due to installation of telemeter system.
<b>Involuntary Restrictions on Land Use or on Access to Legally Designated Parks and Protected Areas</b>				
10. Will people lose access to natural resources, communal facilities and services?		✓		No hindrance to people towards their means of livelihood as no such activity is involved.
11. If land use is changed, will it have an adverse impact on social and economic activities?		✓		No impact on land and no change in land use as use of land or acquisition of land is not in project scope.

Probable Involuntary Resettlement Effects (Please elaborate in the Remarks column)	Yes	No	Not Known	Remarks
12. Will access to land and resources owned communally or by the state be restricted?		✓		No impact on communal lands.
<b>Information on Displaced Persons:</b>				
<i>Any estimate of the likely number of persons that will be displaced by the Subproject?</i> <span style="float: right;">[✓] No [ ]</span>				
Yes If yes, approximately how many? No community disturbance and no community displacement is involved.				
<i>Are any of them poor, female-heads of households, or vulnerable to poverty risks?</i> <span style="float: right;">[✓] No [ ]</span>				
Yes <i>Are any displaced persons from indigenous or ethnic minority groups?</i> <span style="float: right;">[✓] No [ ]</span>				

## Annexure-II

### Indigenous people impact categorization

Date: 13-04-22

Note: According to IUCN, there is only one indigenous community in Pakistan referred to as Kalash which is located in Chitral.

KEY CONCERNS (Please provide elaborations in the Remarks column)	YES	NO	NOT KNOWN	Remarks
<b>A. Indigenous Peoples Identification</b>				
1. Are there socio-cultural groups present in or using the project area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), "minorities" (ethnic or national minorities), or "indigenous communities" in the project area?		✓		Project consists of installation of telemeter system along mechanical gauges of KP Irrigation Department. No negative impact on any indigenous community. <i>Reference: World Directory of Minorities and indigneous People. Development Profile Districts KPK</i>
2. Are there national or local laws or policies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?		✓		No national law or indigenous policy applicable because there is no negative impact on any indigenous community. <i>Reference: World Directory of Minorities and indigneous People- Pakistan</i>
3. Do such groups self-identify as being part of a distinct social and cultural group?		✓		No specific negative impact on any indigenous group or community. <i>Reference: Development Profile District KPK.</i>

<b>KEY CONCERNS</b> (Please provide elaborations in the Remarks column)	<b>YES</b>	<b>NO</b>	<b>NOT KNOWN</b>	<b>Remarks</b>
4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?		✓		No impact on distinct habitats. Reference: <i>World Directory of Minorities and indigeneous People.</i>
5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?		✓		No negative impact on cultural, economic, social and political institution of any indigenous community.
6. Do such groups speak a distinct language or dialect?		✓		No specific negative impacts on any indigenous group. Reference: <i>Development Profile District KPK,NDMA</i>
7. Have such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?		✓		No traces of any negative activity. Reference: <i>World Directory of Minorities and indigenous people</i>
8. Are such groups represented as "Indigenous Peoples" or as "ethnic minorities" or "scheduled tribes" or "tribal populations" in any formal decision-making bodies at the national or local levels?		✓		Project scope of work is installation of telemeter system therefore, no infrastructural activity is involved and no Indigenous people policy triggs. Reference: <i>Development Profile District KPK, NDMA.</i>
<b>B. Identification of Potential Impacts</b>				
9. Will the project directly or indirectly benefit or target Indigenous Peoples?	✓			No Indigenous community is residing in the project areas.

<b>KEY CONCERNS</b> (Please provide elaborations in the Remarks column)	<b>YES</b>	<b>NO</b>	<b>NOT KNOWN</b>	<b>Remarks</b>
10. Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)		✓		No direct impacts on community.
11. Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status).		✓		No impact on livelihood system of any community.
12. Will the project be in an area (land or territory) occupied, owned, or used by Indigenous Peoples, and/or claimed as ancestral domain?		✓		No indigenous community in the project area.
<b>C. Identification of Special Requirements</b> <i>Will the project activities include:</i>				
13. Commercial development of the cultural resources and knowledge of Indigenous Peoples?		✓		No commercial activity is involved.
14. Physical displacement from traditional or customary lands?		✓		No displacement is involved.
15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of Indigenous Peoples?		✓		No hardcore activity on ground.
16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by indigenous peoples ?		✓		No negative impact on traditionally customarily rights.
17. Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by indigenous peoples ?		✓		No land acquisition is involved.

**D. Anticipated project impacts on Indigenous Peoples**

<b>Project component/ activity/ output</b>	<b>Anticipated positive effect</b>	<b>Anticipated negative effect</b>
There is no impact on indigenous community as they do not exist in the project area.	Indigenous people will not be benefitted as they do not exist in the project area.	Indigenous people will not be impacted negatively as they do not exist in the project area.

## **Annexure – III**

### **REA Checklist**

#### **National Disaster Risk Management Fund (NDRMF)**

##### **Environment Screening & Categorization Form (ESCF)**

###### **Instructions:**

- i. The FIP staff shall complete this form to support the environmental categorization of a project and submit to the ESU for verification and shall subsequently be submitted to the GM QAG for endorsement and to the CEO for approval.
- ii. This checklist focuses on environmental issues and concerns. To ensure that Environment dimensions are adequately considered, refer also to NDRMF's (a) Checklists on involuntary resettlement and Indigenous Peoples; and (b) ESMS for guidance.
- iii. This form is to be completed assuming the “without mitigation” case. The purpose is to identify potential impacts.

**1. FIP Name: Pakistan Meteorological Department**

**2. Project Title: Replacement of Existing C-Band Analog ordinary radar with S-band Doppler pulse compression solid stated radar at D.I. Khan**

**3. Project Scope of Work (list the major interventions) Purchase/supply and fixing of Radar equipment**

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**4. Project Location /Administrative Boundary: KP**

**5. Total Project Cost (million PKR)**

**6. Project GPS Co-ordinates:**

**31° 55' E, 70° 52' N**

**7. The proposed project activity is NOT listed in the Prohibited Investment Activities List (PIAL) (please refer to Annexure I below).**

The proposed works are not listed in the PIAL list

**Based on mapping of GPS Co-ordinates onto Google Earth (Annexure II), please respond to the following:**

**8. Is the project site(s) located adjacent to or within any environmentally sensitive areas (National Park, Protected Area, Buffer zone of Protected Area, Wetland, and Mangrove?) If so, provide details and explain the potential risks to the sensitive areas from the proposed project activities:**

S.No	Issues	Yes	NO
------	--------	-----	----

1.	Is the sub-project area adjacent to or within the cultural heritage site?		X
2.	Is the sub-project area adjacent to or within environmentally protected area?		X
3.	Is the sub-project area adjacent to or within Wetland?		X
4.	Is the sub-project area adjacent to or within the Forest?		
5.	Is the sub-project area adjacent to or within Biodiversity hotspot?		X
6.	Is the sub-project area adjacent to or within Buffer zone of protected area		X

9. Is project(s) located in a densely populated area(s)?  YES  No

10. If YES to the above, use the satellite imagery (SI) to identify the numbers and types (as far as possible) of sensitive receptors (SR) below:

SR Type 1 \_\_\_\_\_ Approx. Number of SR1 \_\_\_\_\_

SR Type 2 \_\_\_\_\_ Approx. Number of SR2 \_\_\_\_\_

SR Type 3 \_\_\_\_\_ Approx. Number of SR3 \_\_\_\_\_

11. Will the proposed project activity require dislocation of people? If so, please mention the estimated number of people to be displaced.

**No dislocation of community members will be required in any case**

12. Will any land acquisition be required for the proposed project activity? If so, please provide details.

**Land will be acquired through voluntary land donation in case of privately owned land**

13. Please provide details of any significant expected impacts ("without mitigation" case) due to the proposed project activities on the identified sensitive receptors:

S.No	Type of expected impact	Details on Severity of expected impacts
1	Generation of high dust levels in sensitive areas during construction.	No such impacts
2	High noise levels in sensitive areas due to blasting and civil works.	No such impacts
3	Occupational and community health and safety risks.	No such impacts
4	Impact on water bodies due to disposal of chemicals/oils/lubricants and other hazardous/semi-hazardous substances.	No such impacts



5	<p>Risks to community health and safety caused by (any or all of the below)</p> <ul style="list-style-type: none"> <li>(i) Management and disposal of waste and/or</li> <li>(ii) Civil or electrical works and/or</li> <li>(iii) Accidental and natural hazards, particularly where structural elements or components of project are accessible to members of affected community and/or</li> <li>(iv) Fire, electric shock or failure of civil structures during operation.</li> </ul>	No such impacts
6	Generation of disease vectors due to project activities.	No such impacts
7	Depletion and/or Contamination of ground water reservoirs due to leaching of chemicals, oil, lubricants and other hazardous/semi-hazardous substances.	No such impacts
8	Improper sanitation and solid waste disposal systems.	No such impacts

9	Degradation of land and ecosystem (e.g. loss of wetlands and wild lands, coastal zones, watersheds and forests).	No such impacts
10	Road blocking and temporary flooding due to land excavation during rainy season.	No such impacts
11	Dislocation or involuntary resettlement of people.	No such impacts
12	Impacts on vulnerable groups such as the poor, women and children and indigenous peoples.	No such impacts
13	Degradation of cultural property and loss of cultural heritage and tourism reserves.	No such impacts
14	Impact on Flora and Fauna, particularly on any endangered species located in project area(s).	No such impacts
15	Social conflicts	No such impacts

**Project Category Recommendation**

**14. It is recommended that based on the available project information and subsequent analysis, the project should be placed in (please tick one):**

- Category 'A'                     
 Category 'B1'                     
 Category 'B2'                     
 Category 'C'

**15. Please provide an explanation to justify the Categorization above:**

Based on the fact that no major civil works has been proposed by KP Irrigation Department, KPK. The impacts on the environment and social are found to be none due to no change in the present conditions. According to WHO under normal conditions these weather radars pose no hazard to the general public nor to the environment, hence, the project has been categorized as "**Category C**" project and no further environmental and social assessment is required.