Project Number: 49191-001

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## Proposed Loan Pakistan: Post-flood National Highways Rehabilitation Project (PNHRP)

Prepared by National Highway Authority for the Asian Development Bank.

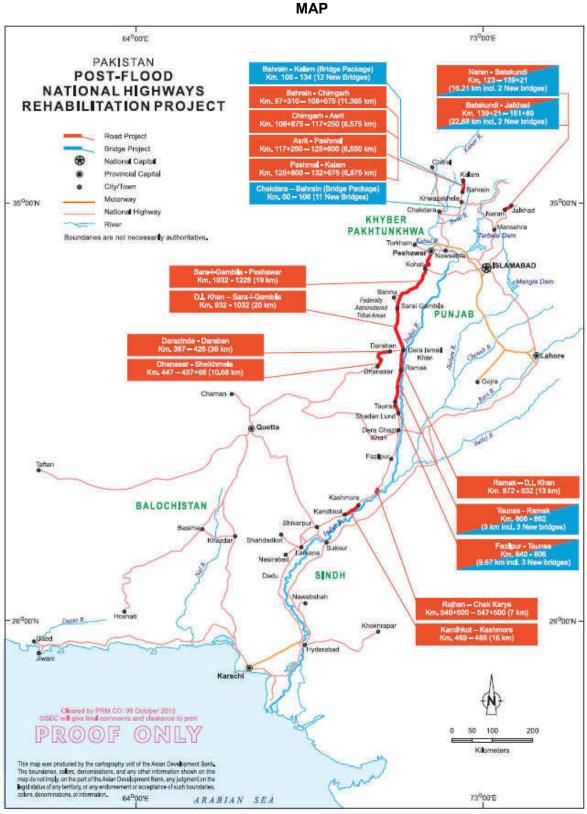
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## I. INTRODUCTION

1. This Due Diligence Report (DDR) is conducted for the Post-flood National Highways Rehabilitation Project (PNHRP) which is proposed by the Government of Pakistan for financing by the Asian Development Bank. Civil works for this project involves the reconstruction and rehabilitation of approximately 212 kilometers (kms) of national highways and 33 bridges, damaged during the floods of September 2010. These works are divided into 17 Lots that are grouped into 7 packages.

2. The National Highway Authority (NHA) will be the project executing agency (EA). The project management unit (PMU), established and staffed earlier under Loan 2742: Flood Emergency and Reconstruction Project (FERP-1)<sup>1</sup>, will continue to be responsible for the day-to-day management of the PNHRP. Similarly, the Environment and Social Unit (ESU), already established within the PMU, will continue to fulfill safeguard requirements.

3. The project is classified as category B for involuntary resettlement (IR) and Category C for indigenous peoples (IP). Due diligence performed during the Mission confirmed that (i) the proposed sections of the national highways and 33 bridges fall within the existing right-of-way (ROW) already owned by NHA; (ii) detailed designs have been completed and reviewed by NHA's design review consultants, based on which new land acquisition is not expected in bridges (to be constructed within existing ROW) or in the carriageway of the highway sections. NHA has prepared a land acquisition and resettlement framework (LARF) to systematically address any potential LAR impacts during implementation.

4. The 7 civil works packages proposed under PNHRP were originally part of FERP-1. Of the subprojects under FERP-1, only the subproject in N-95 (Fatehpur to Kalam Road section) involved minor land acquisition and resettlement (in about 9.94 km) due to some realignment. For this, a LARP was prepared and implemented.

5. This due diligence on involuntary resettlement is conducted to validate the earlier social safeguards due diligence report prepared by NHA. It aims to (a) verify if there are involuntary resettlement risks or impacts of the proposed civil works under PNHRP; (b) determine if there are feasible technical/engineering solutions to avoid such risks or impacts; and (c) confirm if a land acquisition and resettlement plan (LARP) needs to be prepared at this stage.

## II. METHODOLOGY

6. The due diligence included (i) a desk review of design drawings and documents, and (ii) site visits by the ADB PRM safeguards team, assisted by two national resettlement specialists under RETA 7433. The visits were conducted in parallel in three areas from 30 November to 4 December 2015. Prior to the field visits, a meeting was conducted with the Project Director of FERP-1 to discuss the nature and scope of the project, and firm up the itinerary for the mission. One engineer from NHA accompanied each group to show the locations of the subprojects, and explain the scope of works. Photographs were taken on the visited sites, focusing on areas with potential IR risks (Site-specific findings and recommendations are in Attachment 1, while photographs taken during the field visits are in Attachment 2). After the visits, a meeting was again held with the Director of FERP-1 to discuss the findings, and recommendations.

<sup>&</sup>lt;sup>1</sup> PMU for FERP is staffed and functional until the end of defects notification period (June 2016) for the contracts under FERP. NHA has confirmed that the same PMU will be retained to continue the implementation of the proposed project.

7. The teams referred to the Km posts to establish the location. However, in some road sections where such posts are unavailable, the team used the car odometer as an alternative reference. Hence, there may be some inaccuracies in the identification of RD-locations where site-specific observations were made. ROW markers were used to determine the extent of the ROW. In areas where markers are not found, the team used alternative indicators such as the tree-lines and major concrete structures as basis. The following subprojects were visited:

## <u> Team 1:</u>

(Ayaz Asif, ADB consultant; Najeebullah Khan and Zia Rehman Khan, NHA) Package 5: N-55: D.I.Khan – Sarai Gambila

- Lot 1: D.I.Khan-Sarai Gambil, Km 932-1032 (20km)
- Lot 2: Sarai Gambila-Peshawar, Km 1032-1228 (19km)

## Package 6: N-55: Fazilpur- D.I.Khan

- Lot 1: Fazil-Taunsa, Km 640-808 (3km including 3 new bridges)
- Lot 2: Taunsa-Ramak, Km 806-862 (3km including 3 new bridges)
- Lot 3: Ramak-D.I.Khan, Km 872-932 (13km)

## <u>Team 2:</u>

(Muhammad Azeem, ADB consultant; Najeebullah Khan, Tariq Dhomkey, NHA) **Package 4: N-50: Dhanesir-Draban** 

- Lot 1: Dhanesir-Sheikhmela, Km 387-326 (39 km)
- Lot 2: Drazinda-Draban, Km 447+000-457+68 (10.68 km)

## Package 7: N-55: Khandhkot-Chak karaya

- Lot 1: Kandhkot- Kashmore, Km 469-485 (16 km)
- Lot 2: Rojhan-Chak karaya, Km 540+500-547+500 (7 km)

## <u> Team 3:</u>

(Ashfaq, Khokar, ADB; Muhammad Imtiaz Khan, Mohammad Raheal Khan and Aamar Ali Qureshi, NHA)

## Package 1: N-95: Bahrain-Kalam

- Lot 1: Bahrain-Chimgarhi, Km 97+310-108+675 (11.365 km)
- Lot 2: Chimgarhi-Asrit, Km108+675-117+250 (11.365 km)
- Lot 3: Asrit-Pashman, Km 117+250-125+800 (8.550 km)
- Lot 4: Pashman-Kalam, Km 125+800-135+675 (6.875 km)

Package 2: N-95: Rehabilitation of Bridges, Chakdara to Kalam

- Lot 1: 11 new bridges, Chakdara-Bahrain, Km 00+00-106
- Lot 2: 12 new bridges, Bahrain-Kalam, Km 106+00-134

## Package 3: N-15: Rehabilitation of Highways and Bridges, Naran to Jalkhad

- Lot 1: Naran-Batakundi, Km 123+00-139+21 with 2 new bridges (116.21 km)
- Lot 2: Batakundi-Jalikhad, Km 139+21-161+89 with new 2 bridges (22.68 km)

### III. FINDINGS

### General Description of Physical Works

8. The proposed works consists mainly of rehabilitation and upgrading of road sections and bridges within the existing ROWs, allowing for some degree of flexibility to avoid impacting on nearby structures.

- a. **Road rehabilitation -** Road rehabilitation involves the construction of a 7.3 meters wide pavement in addition to a maximum of 3 meters-wide shoulders. In sections in hilly areas, retaining walls and catchment drains will also be constructed. The shoulder-width can be adjusted to avoid causing impacts to the nearby structures along the road corridor.
- **b. Bridges construction** Proposed bridges will replace 33 temporary bridges in selected sections. The total width of the bridges is 10.5 meters that includes 7.3 meters of pavement and variable shoulders of 1-3 meters on each side of the pavement. The shoulders can be adjusted to avoid impacts to structures located at the bridge approaches.

### Land Acquisition and Resettlement Risks per Package

9. **Package 1: N-95, Bahrain-Kalam (Lot 1, 2, 3 and 4)**. Land for a 15-meter wide carriageway for about 14.24 km at different areas from Km 85.225 to Km 123+300 of the Fatehpur to Kalam section of N-95, was acquired by NHA during FERP-1. Compensation payments were completed, as confirmed in the resettlement monitoring under the project. Proof of compensation payments were also provided to the Mission. Likewise, 4 DPs met at the site (Kedam and Satal Garhi) also confirmed that they have been compensated for their affected structures, but were allowed to remain until the rehabilitation work starts. There is sufficient working space of 7.3 meters for the carriageway, with additional variable width of 3-meters shoulders. Nevertheless, proper due diligence must still be exercised to ensure no damages are caused to the road-side structures during the construction work, and monitoring by a resettlement specialist (consultant) is needed to confirm the construction work as per final design/construction specifications, provided by NHA.

10. Package 2: N-95, Chakdara-Kalam (Bridges). All 23 bridges under this package were visited and were generally found clear from LAR impacts except for one main bridge at Bahrain bazar/built-up area at RD 97+060 where some commercial structures have encroached both the approaches to the bridge. However, at this stage it cannot be ascertained if the bridge construction will impact on the nearby structures at Bahrain bridge based on the assurance made by NHA to keep the construction work strictly limited to the width of the existing 6-meters wide steel bridge. See photo at annex 1 and 2 for details. NHA will undertake further technical/engineering assessment of the bridge width before mobilizing the contractor and will confirm to ADB whether this would involve LAR impacts. Proper due diligence must be exercised to ensure no damages are caused to the structures around the bridge and approach roads during the construction work, and monitoring by a resettlement specialist (consultant) is needed to confirm the construction work as per final design/construction specifications, to be provided by NHA. The need for a LARP will depend on the bridge construction approach to be used. If a pre-fabricated steel bridge is selected, the construction work will not cause any impact on the nearby structures.

11. **Package 3:** N-15, Naran to Jalkhad including 4 bridges (Lot 1 and 2). The road section, including the bridges, is clear from any LAR and encroachment related impacts. The width of the existing carriageway (12-15 meters) is more than the width needed to accommodate the designed width of 10.5 meters (7.3 meters of carriageway and 3 meters of shoulders) for construction. For lot 2 (comprising 22.68 km section from Batakundi to Jalkhad including 2 new bridges), only 12 km section could be visited which was found to be clear from any LAR and encroachment related impacts. The remaining area of about 10 km including one new bridge could not be visited due to blockage of the road by snow and landslide. The NHA Engineer informed the Mission that the condition of the carriage way and shoulders in the remaining 10 km is similar to the 12 km section which was observed during the field visit. Photographs and design specifications provided by NHA for remaining 10 km suggest that no resettlement impacts may be expected. A LARP will not be required for this package.

12. **Package 4: N-50, Dhanesir-Drabin (Lot 1<sup>2</sup> and 2)**. At different locations, residential structures, thatch sheds and hut, kiosks are situated adjacent to the outer limits of the existing carriageway shoulders. Between Km 395+500 to Km 395+550, the available area for construction is from 9-10 meters. In other sections, available area ranges between 12-15 meters. To avoid potential impacts in all identified sections, the following remedial measures are proposed: (i) reduce shoulder width by 0.5 to 1.5 meter as per site requirements; and (ii) follow existing carriage way limits to execute the rehabilitation works in identified locations. With these measures, a LARP will not be required for this package.

13. **Package 5: N-55, D.I. Khan-Sarai Gambila (Lot 1 and 2)**. There are no foreseeable LAR impacts due to the rehabilitation work in Package 5. Most of the proposed sections lie in unpopulated areas mostly surrounded by agricultural fields or small hills slopes populated with trees and shrubs. Some sections of the road pass through populated areas with fixed structures along the road such as houses, shops, truck-stop hotels, etc. However, these structures are all located outside the construction limit and existing ROW. A LARP will not be required for this package.

14. **Package 6:** N-55, Fazilpur-D.I. Khan (Lot 1, 2, and 3). In Lots 1 and 2, the proposed bridges will be constructed at the existing damaged sites. The terrain is generally flat. There are no human settlements or structures in the proximity of these bridges and therefore no foreseeable LAR impacts. (Pictures attached as **Annex 2**) In Lot 3, there are some shops and structures alongside the road. However, these are situated beyond the ROW and will not be affected by construction activities. A LARP will not be required for this package.

15. **Package 7: N-50, Kandhkot- Kashmore (Lot 1 and 2)**. The carriageway limits range between 13-17 meters at different locations. At Km 447+800 to Km 447+900 hamlet Dhakan Banglow under Lot-1, three structures including a small shop and two stalls with thatch sheds are located on the right side shoulder of the road. All other identified structures along the road are located out of earthen shoulders. Project works could be executed safely with some flexible design approach. Lot-2 road section is free of any regular fixed structures. To avoid impacting on the 3 structures at Km 447, it is proposed to slightly adjust the centerline towards the left or reduce shoulder width up to the maximum possible extent to the right side. With these adjustments, a LARP will not be required for this package.

<sup>&</sup>lt;sup>2</sup> During mission, it was noted that 8 Km in Lot.1 (Km 387, Dhanesir to Km 395, Mughalkot) is covered under the National Highway Network Development Project Balochistan (Loan Pak 3134). It is suggested to revise the project road section Lot-1 to Mughalkot-Sheikhmela: Km 395 to 326 (31 Km) to avoid confusion. NHA confirmed that the end-point of the road section under Loan 3134 will be the starting point for this project.

### IV. CONCLUSIONS AND RECOMMENDATIONS

### **Conclusions**

16. Based on the field verification, it can be concluded that involuntary resettlement impacts in the 7 construction packages proposed under the Post-flood National Highways Rehabilitation Project can be avoided. A land acquisition and resettlement plan (LARP) is not required at this stage.

- a. In three civil works packages (Packages 3, 5 and 6), the existing ROW is clear of any encroachment and there is sufficient construction work area to complete the works.
- b. In three civil works packages (Packages 1, 4 and 7), encroachment was noted in some sections of the ROW, but with some adjustments in the rehabilitation works and due care during construction, impacts can also be avoided on these encroaching structures.
- c. In Package 2, impacts on encroaching structures at the bridge approach of Bahrain Bridge can be avoided depending on the type of bridge construction to be used. Further technical/engineering assessment will be needed to confirm if a LARP will be required.

#### **Recommendations**

- 17. The following actions are recommended:
  - a. Exercise proper care during construction work to ensure no damages are caused to the road-side structures during the construction work;
  - Advance recruitment of a resettlement specialist (consultant) to undertake resettlement monitoring, confirm construction work as per final design/construction specifications, provided by NHA;
  - c. NHA to undertake further technical/engineering assessment of the replacement of Bahrain Bridge and inform ADB whether the construction of a new bridge will impact on nearby structures. If impacts cannot be avoided, a LARP will be prepared for ADB review prior to contract award for Package 2;
  - Conduct a follow-up visit/verification of the remaining 10-km of Lot 2, Package 3 to confirm if there are no involuntary resettlement impacts to be expected from the proposed works;
  - e. In certain sections under Package 4, reduce shoulder width by 0.5 to 1.5 meter as per site requirements; and follow the existing carriage way limits to execute the rehabilitation works in identified locations;
  - f. In Lot 1, Package 7, at the identified site slightly adjust the centerline towards the left or reduce shoulder width up to the maximum possible extent to the right side.

## ATTACHMENT 1:

## SITE SPECIFIC FINDINGS AND RECOMMENDATIONS

Name of Road/Bridge with distances	Location of Road/Bridge (RD/km)	Legal ROW/ feet	Carriageway Width m	*Potential Impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)	Location L/R side of road/bridge	Remedial actions/options to avoid impacts. Indicate if impacts are unavoidable.
National Highway Package 1, Lot 1				ection from Km 9+310 to 1	08+675	
	RD 97+300	110 feet	7.5m	Structure on existing working space, paid under FERP 1.	Right	Existing working space of 7.5 m will be expanded to about 10m by constructing a protection wall on right of river bank. Construction work to be monitored to ensure no impact or disturbances caused to structures on right side of the carriageway.
	RD 99+300	110 feet	8-10m	Commercial structures	Left	Commercial structures located on left side of existing carriageway but are free of any LAR impacts.
	RD 102+01	110 feet	7.5m	Two structures opposite to each other on either side of the road.	Left+Right	A residential structure on left side and a police check post on right side of the road, both acquired and paid under FERP 1.
	RD 99+100 to RD 101+151	110 feet	8.0m	About 12 residential and commercial structures, located adjacent to or near the existing working space.	Left+Right	Pkg-I, Lot 1, RD: 101+095. Commercial shops near the site proposed for a bridge and construction of carriageway. Existing working space of 6-8m will be expanded to about 10m. Due diligence and monitoring of construction work needed to ensure no impacts or disturbances caused to the local people.

Location of Road/Bridge (RD/km)	Legal ROW/ feet	Carriageway Width m	*Potential Impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)	Location L/R side of road/bridge	Remedial actions/options to avoid impacts. Indicate if impacts are unavoidable.
			om Km 108+675 to 117+25	0	
RD 109+210	110 feet	6-8m	6 commercial structures encroaching the existing working space of 6-8m.	Left+Right	Commercial structures need to be protected/ avoided from any impacts by keeping the construction work confined within existing working space. Due diligence and monitoring of construction work required to ensure no impacts or disturbances caused to the local people.
RD 113+210	110 feet	6-8m	Police chowki right on left shoulder of the existing working space.	Right	Working space to be expanded to 10m by constructing a protection wall without causing any impact to the structure. Due diligence and monitoring of construction work required to ensure no impact caused to the check post.
RD 116+900	110 feet	6-8 m	About 20 commercial structures with potential impacts if construction work goes beyond 10m.	Left+Right	Construction work to remain within 10m wide working space to avoid any impacts to the structures. Due diligence and monitoring of construction work required to ensure no impacts to the structures.
	Road/Bridge (RD/km) (N-95), Bahra Chimgarhi to A RD 109+210 RD 113+210	Road/Bridge (RD/km)ROW/ feetr (N-95), Bahrain-Kalan Chimgarhi to Asrit, 11.3RD 109+210RD 109+210RD feetRD 113+210RD feetRD 113+210RD feet110 feet	Road/Bridge (RD/km)ROW/ feetWidth m(N-95), Bahrain-Kalam Road Chimgarhi to Asrit, 11.365 section frRD 109+210110 feetRD 109+210110 feetRD 113+210110 feetRD 113+210110 feetRD 113+210110 feetRD 110110 feet	Road/Bridge (RD/km)ROW/ feetWidth mPotential impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)r(N-95), Bahrain-Kalam Roadc(N-95), Bahrain-Kalam Roadchimgarhi to Asrit, 11.365 section from Km 108+675 to 117+250RD 109+210110 feet6-8m6 commercial structures encroaching the existing working space of 6-8m.RD 113+210110 feetRD 113+210110 feetRD 113+210110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feetRD 116+900110 feet	Road/Bridge (RD/km)ROW/ feetWidth mConstruction impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)L/R side of road/bridger(N-95), Bahrain-Kalam Road Chimgarhi to Asrit, 11.365 section from Km 108+675 to 117+250L/R side of road/bridgeRD 109+210110 feet6-8m6 commercial structures encroaching the existing working space of 6-8m.Left+RightRD 113+210110 feet6-8mPolice chowki right on left shoulder of the existing working space.RightRD 113+210110 feet6-8mAbout 20 commercial structures with potential impacts if constructionLeft+Right

Name of Road/Bridge with distances	Location of Road/Bridge (RD/km)	Legal ROW/ feet	Carriageway Width m	*Potential Impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)	Location L/R side of road/bridge	Remedial actions/options to avoid impacts. Indicate if impacts are unavoidable.
	RD 120+600	110 feet	8-10m	A Residential structure touching the carriage way	Right	Construction work to be strictly confined within 10m to avoid impact. Due diligence and monitoring of construction work required to ensure no impacts to the structure.
	RD 120+110	110 feet	8-10m	About 8 residential structures encroaching the existing working space of 6-8m.	Left+Right	Construction work to be strictly confined within 10m to avoid impact. Due diligence and monitoring of construction work required to ensure no impacts to the structures.
	RD 121+110	110 feet	8-10m	6 residential houses touching the existing carriage way.	Left+Right	Construction work to be strictly confined within 10m to avoid impact. Due diligence and monitoring of construction work required to ensure no impacts to the structures.
	RD 121+510	110 feet	8-10m	A residential structure touching the carriage way	Left	Clear from existing carriageway. Construction to be confined within 10m to avoid impacts.
	RD 121+900	110 feet	8-10m	4 commercial structures	Right+Left	Construction work to be strictly confined within 10m to avoid impact. Due diligence and monitoring of construction work required to ensure no impacts to the structures.
	RD 122+210	110 feet	8-10m	About 6 residential structure	Right	Clear form existing working space.

Name of Road/Bridge with distances	Location of Road/Bridge (RD/km)	Legal ROW/ feet	Carriageway Width m	*Potential Impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)	Location L/R side of road/bridge	Remedial actions/options to avoid impacts. Indicate if impacts are unavoidable.
	RD 122+610	110 feet	8-10m	2 residential structures payment made	Left+Right	Payments made under FERP 1. Structures need to be demolished with prior notice to the structure owners.
	RD 122+810	110 feet	8-10m	2 residential structures encroaching the existing ROW		Construction work to be strictly confined within 10m to avoid impact. Due diligence and monitoring of construction work required to ensure no impacts to the structures.
	RD 125+410	110 feet	8-10m	Government primary school structure boundary wall touching the carriage way	Left	Keep construction work limited to 10m to avoid any impact to the school building
	RD 125+610	110 feet	15m	A Mosque adjacent to the carriageway.	Left	Clear from impact.
	RD 125+900	110 feet	15m	4 residential structures near existing carriageway.	Left+Right	Clear form any impacts.
	RD 125+800	110 feet	15m	2 residential structures adjacent to the existing carriageway of 15m	Left+Right	Clear from any impacts.
National Highway Package I, Lot 4 I				n from Km 125+800 to 135+	-675	
	RD 126+410 to 126+810	110 feet	12-15m	18 commercial and residential structures located near existing working space of 12m	Right+Left	These structures are clear form existing carriageway. Due diligence needs to be exercised during construction work to avoid any impacts.

Name of Road/Bridge with distances	Location of Road/Bridge (RD/km)	Legal ROW/ feet	Carriageway Width m	*Potential Impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)	Location L/R side of road/bridge	Remedial actions/options to avoid impacts. Indicate if impacts are unavoidable.
	RD 127+410 to 126+610	110 feet	10-12m	24 commercial and residential structures located near existing working space of 6-8m.	Left+Right	Keep construction work within existing carriageway to avoid causing any impacts to the structures. Due diligence needs to be exercised during construction to ensure no impacts to the structures.
	RD 128+410	110 feet	8-10m	8 residential structures effecting the existing	Right+Left	Keep construction work within existing carriageway to avoid causing any impacts to the structures. Due diligence needs to be exercised during construction to ensure no impacts to the structures.
	RD 129+810	110 feet	8-10m	2 commercial structures	Right Left	Keep construction work within existing carriageway to avoid causing any impacts to the structures. Due diligence needs to be exercised during construction to ensure no impacts to the structures.
	RD 130+500	110	15m	Eroded road portion of 300m.	Right	New alignment along the river bed being laid down. No LAR impacts involved.
				Chakdara to Kalam. m (11 new bridges.		
	RD 97+060	110 feet	6m	Bridge falling in built-up area with commercial structures encroaching the approach road.	Right+Left	Prior consultations with vendors required before construction which must be confined within available width of 10m. Due

Name of Road/Bridge with distances	Location of Road/Bridge (RD/km)	Legal ROW/ feet	Carriageway Width m	*Potential Impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)	Location L/R side of road/bridge	Remedial actions/options to avoid impacts. Indicate if impacts are unavoidable.
						diligence prior to and during construction work needed to ensure no impacts to the structures.
	RD 00 - 106	110 feet	8-10m	Remaining 10 bridges are clear from any LAR impacts.		10 bridges have no LAR impacts. Due diligence to be exercised during construction work to avoid impacting any structures near the approach roads.
Rehabilitation of Package 2, Lot 2				Chakdara to Kalam. (12 new bridges).		
	RD 106-134	110 feet	8-10m	All 12 bridges are clear from LAR impacts		Due diligence to be exercised during construction work to avoid impacting any structures near the approach roads.
				lighway (N-15) Naran to Ja 1 km (16.21km including 2		· · · · · · · · · · · · · · · · · · ·
	RD 123 – 139+21	110 feet	10-15m	Entire carriageway and 2 bridges are free from LAR impacts.		Due diligence to be exercised during construction work to avoid impacting any structures near the approach roads.
				lighway (N-15) Naran to Ja · 161+89 (22.68 km includir		lges)
	RD 139+21 to 151+89	110 feet	10-15m	Of the total 22km section, about 12 km area was visited while the remaining area could not be visited due to road blockage by snow		The area visited is free from any LAR impacts. For remaining area of about 10 km (not visited) the design specifications and clarifications from engineering officials accompanying the due

Name of Road/Bridge with distances	Location of Road/Bridge (RD/km)	Legal ROW/ feet	Carriageway Width m	*Potential Impacts (Describe number and type/material of affected assets i.e 5 m of concrete fence or 4 wooden road side shops)	Location L/R side of road/bridge	Remedial actions/options to avoid impacts. Indicate if impacts are unavoidable.
				glaciers and land sliding.		diligence mission confirmed that there no LAR impacts either on bridges or the carriageway as the road width is same as the area visited. However due diligence will be exercised during the construction work to avoid causing any impacts to road-side structures.

\* Attach photos and other supporting documents as relevant.

ATTACHMENT 2: PHOTOGRAPHS



Pkg-I, Lot 1 Satal Bridge at RD: 92+190



Pkg-I, Lot 1, Bridge at RD: 91+520



Pkg-I, Lot 1 Satal Bridge at RD: 92+190



Pkg-I, Lot 1, Bridge at RD: 91+520



Pkg-I, Lot 1, Jagah Bridge at RD: 94+785



Pkg-I, Lot 1, Jagah Bridge at RD: 94+785



Pkg-I, Lot 1, Behrain Bazar Bridge at RD: 97+060 with potential LAR impacts.



Pkg 1, Lot 1, RD 99+100 to 99+300: commercial structures located on left side of existing carriageway but have no LAR impacts.



Pkg I, Lot 1, RD 97+300. Built-up area: structures on right side of existing working space, paid under FERP 1.



Pkg 1, Lot 1 Road-side structures requiring due diligence during construction to avoid any impacts



Pkg-I, Lot 1, Structures near bridge at RD: 101+095. Restrict construction within 10m to avoid impacts



Pkg-I, Lot 1, Bridge at RD: 101+095. No LAR impacts



Pkg-I, Lot 1, Bridge at RD: 101+095



Pkg-I, Lot 1, RD: 101+095. Built-up area: commercial shops near the site proposed for a bridge. Due diligence and monitoring needed to ensure bridge construction does not impact the shops.



Pkg-I, Lot 1, RD: 101+095. Residential structures to be voided by keeping the working space limited to 10m.





Structures near RD 101 Due diligence required during construction to avoid impacts.



Pkg 1, Lot 1, RD 102.01 Structures on both sides of road, already acquired/paid under FERP 1



Pkg 1, Lot 2, RD 109+210. Six commercial structures encroaching the existing working space of about 6m.



Pkg 1, Lot 2, RD 113+210, Police check post, village Jadeed/Qadeem on left shoulder of the working space.



Pkg 1, Lot 3, RD 120+110, Residential/commercial structures encroaching the existing working space of 8-





Pkg 1, Lot 3, RD 121+510, Residential structures encroaching the existing working space of 8-10m



Pkg 1, Lot 2, RD 116+900, About 20 commercial structures encroaching upon the existing working space of about 8-10m.



Pkg 1, Lot 3, RD 121+210, Residential/commercial structures encroaching the existing working space of 8-10m



Pkg 1, Lot 3, RD 120+600, Residential/commercial structures encroaching the existing working space of 8-10m





Pkg 1, Lot 3, RD 121+510, One residential structure touching the carriageway from left side. Keep construction within 10m to avoid impacts.





Pkg 1, Lot 3, RD 120+110, 8 residential structures on both sides of carriageway. Keep construction within 10m to avoid impacts to the structures.



Pkg 1 lot 3 RD 122, built up area requiring due diligence during construction within 10m to avoid impacts.



Pkg 1, Lot 3, RD 121+110: Six residential structures

on either side of carriageway. Keep construction work limited to 10m to avoid impacts



Pkg I, Lot 3 RD 125+610. Mosque clear form existing carriageway. No impacts.





Pkg 1, Lot 4 RD 126+410 to 126+810 Built-up area, 18 commercial structures touching the carriageway from both sides.



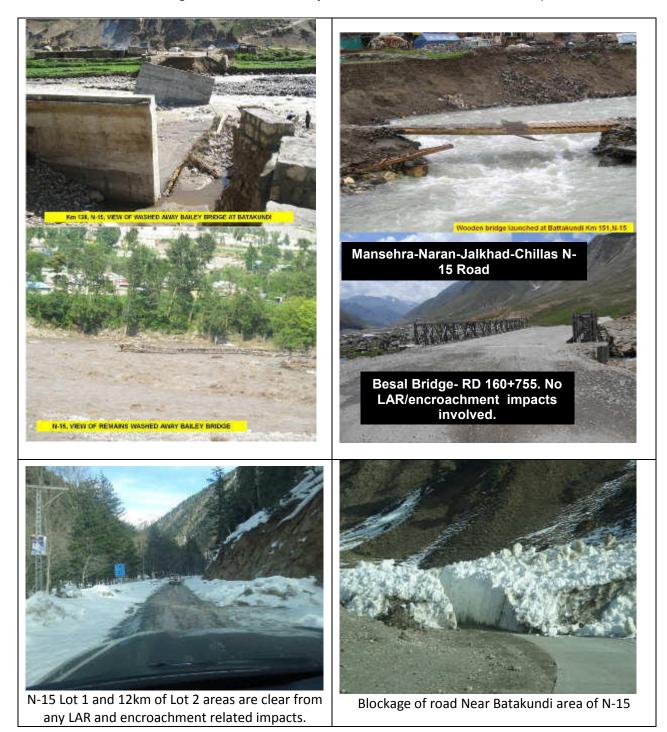


New alignment of 300 m under construction near end point of Kalam but no LAR impacts



Bridge at end point of Kalam having no LAR impacts

## National Highway (N-15), Naran to Jalkhad: Sites for construction of new bridges Note: All bridges are clear from any LAR or encroachment-related impacts.





Package 5 Lot 1 and 2 Proposed sections passing through inhabited areas (Above and below)



Package 5 Lot 1 and 2 Residential structures alongside the road (Below)



Package 5 section 1 and 2 Shops and vendors alongside the road



## Proposed New Bridges



Bridge 1: RD 842

Bridge 2: RD 857



Bridge 3: RD 861



Bridge 4: RD 804



Bridge 5: RD 780



Bridge 6: RD 760

## Package 6 Lot 1: 2 km Road RD 640-642





#### Picture Package-4 N-50: Dhanesir-Sheik Mela Section (Lot-1) RD 387 to 426.











#### Attachment 2:

#### Picture Package-4 N-50\_\_ Lot 2: Darzinda – Draban Section RD 447+000 to 457+68.





#### Attachment 2:

#### Picture Package-7 N-50\_\_ Lot 1: Kandhkot-Kasmore section Km 469+000 to 485+000.





**Pic. 2 Lot-1 N-55:** Brick Masonry Structure with shed (right side) located 3.5 meters from carriageway. N-55 RD 471+700



**Pic. 3 Lot-1 N-55:** Temporary Thatch sheds (left & right sides) located about 9-10 meters away from carriage way. N-55\_RD 471+700



N-55\_RD 477+800 to RD 477+900



**Pic.5(3)** Lot-1 N-55: Shops at edge of ROW showing encroachments like mosque with temporary sheds along right side of existing carriageway. N-55\_RD 477+800 to RD 477+900



**Pic.6 (1) Lot-1 N-55:** Encroached temporary structures (sheds and kiosks along left side of existing carriageway but outside of earthen shoulder (left side of the road). N-55\_RD 477+800 to RD 477+900



**Pic.6 (2) Lot-1 N-55:** Encroached temporary structures (sheds and kiosks along both sides of existing carriageway but outside of earthen shoulder (road side view). N-55\_RD 477+800 to RD 477+900

#### Attachment 2:

#### Picture Package-7 N-50\_\_ Lot 2: Rojhan-Chak Karaya Section Km 540+500 to 547+500.



**Pic. 1 Lot-2 N-55 :** Kiosk facing opposite towards to rural road with thatch shed with bamboo pillars mounted along shoulder of existing carriage way. N\_55 RD 541+700.



**Pic. 2 Lot-2 N-55:** Kiosk facing towards N-55 with thatch shed with logs mounted slightly away from shoulder of existing carriage way. N\_55 RD 541+700.