

**INDIA**

**Punjab State Road Sector Project (Loan 4843-IN)**

**Implementation Support Mission**

**Aide-Memoire**

1. A World Bank team visited the State of Punjab from April 3 to 10, 2017 to review the implementation progress of the Punjab State Road Sector Project (PSRSP). The team conducted field visits of the Output and Performance Based Road Contract (OPRC), additional roads and road safety works, and held discussions with the officials of Punjab Roads & Bridges Development Board (PRBDB) and Public Works Departments (PWD), Government of Punjab (GoP). The mission also held discussions with contractors and consultants, engaged under the project. The wrap up meeting was held with the Chief Secretary, Government of Punjab and the Secretary, PWD.

2. This aide-memoire summarizes the findings, recommendations and agreements reached during the review.

**KEY PROJECT DATA & PERFORMANCE RATING**

3. The following table summarizes the key project data and updated project performances at this mission.

4. **Key Project Data:**

|                       |                   |                                |                         |
|-----------------------|-------------------|--------------------------------|-------------------------|
| Project Approval      | Dec. 05, 2006     | Loan Amount                    | US\$ 250 million        |
| Loan Signing          | February 26, 2007 | Disbursed                      | US\$ 221 million        |
| Loan Effectiveness    | April 2, 2017     | Development Objectives Rating  | Satisfactory            |
| Original Closing Date | June.05, 2012     | Implementation Progress Rating | Moderately Satisfactory |
| Revised Closing Date  | June 5, 2017      |                                |                         |

5. **Project Ratings:**

| Field  | Rating <sup>1</sup> |                |
|--|---------------------|----------------|
|  | Last Mission        | Current Rating |
| Road Upgrading, Rehabilitation and Maintenance Component | MS                  | MS             |
| Institutional Strengthening Component                    | S                   | S              |
| Environmental Safeguard Management                       | MU                  | MS             |
| Social Safeguard Management                              | S                   | MS             |
| Project Management                                       | MS                  | MS             |
| Financial Management                                     | MS                  | MS             |
| Procurement quality/timeliness                           | S                   | S              |

**SUMMARY OF KEY FINDINGS, DISCUSSIONS AND AGREEMENTS**

6. **Phase-I Civil Works Progress:** All works, envisaged under the Phase I of the project have been completed.

7. **Output and Performance Based Road Contract (OPRC) for Improvement, Rehabilitation, Resurfacing & Routine Maintenance Works of Sangrur - Mansa -Bathinda Area.**

<sup>1</sup> HS highly satisfactory, S satisfactory, MS Moderately Satisfactory, MU Moderately Unsatisfactory, U unsatisfactory, NA not applicable.

8. The contract started in December 2012 and the scope of works includes maintaining a network of about 203.68 km at agreed service levels and performance criteria including improvement and rehabilitation works. The description of the works included in the OPRC contract is provided in the table below:

| Sl. No.      | Road Section Code | Name of Road Section         | Length (Km)   | Cassification and Road No. | Proposed Treatment     |
|--------------|-------------------|------------------------------|---------------|----------------------------|------------------------|
| 1            | S1                | Sangrur to Sunam             | 11.30         | MDR 21                     | Rehabilitation         |
| 2            | S2                | Bhawanigarh to Kot Shamir    | 106.13        | SH 12A                     | Improvement (Widening) |
| 3            | S3                | Harisinghwala chowk to Mansa | 7.29          | SH 13                      | Rehabilitation         |
| 4            | S4                | Mansa to Talwandi Sabo       | 24.97         | ODR 9                      | Improvement (Widening) |
| 5            | S5                | Dhanaula to Bhikhi           | 25.34         | MDR 14                     | Rehabilitation         |
| 6            | B8                | Bathinda to Talwandi Sabo    | 28.65         | SH 17                      | Rehabilitation         |
| <b>Total</b> |                   |                              | <b>203.68</b> |                            |                        |

1. All key agreed road works planned for the work year finishing in December 2016 have been completed. The Mission was informed that the Contractor has submitted a 3-year Rolling Plan starting with Fifth Year. The fifth year of the 10-year contract has started on 05 December 2016. The works are ongoing on 4 laning of selected sections, major intersections improvement and narrow bridge widening.

2. The project is aiming to complete scheduled OPRC works on widening and rehabilitation by the project closing date of June 2017.

3. The cumulative Value of Works Executed (including for monthly network performance and monthly performance achievement) is INR 3,866 million until end-March 2017 in the contract of INR 5,964 million, thus the physical progress in financial terms is 65% of contract amount. These do not include the value of works executed under variation of INR 81 million. The status of implementation is presented below.

**Status of implementation as on end-March 2017**

|                                 | Total Work Plan as per contract (km) | Cumulative Physical progress Planned through Fifth Year (km) | Cumulative Physical progress achieved (km) | Cumulative Financial progress Achieved (INR million) |
|---------------------------------|--------------------------------------|--|--|--|
| Improvement                     | 128.90                               | 126.49   | 120.31                                     | 2273   |
| Rehabilitation                  | 74.78                                | 47.39  | 40.02                                      | 736  |
| Resurfacing                     | 203.68                               | 28.65  | 28.65                                      | 96   |
| Monthly Network Performance     |                                      |  |  | 460  |
| Monthly Performance Achievement |                                      |  |  | 300  |
| <b>Total</b>                    |                                      |  |  | <b>3866</b>  |

4. The Mission visited the entire network (except a small length of section S2) and held discussions with PRBDB, Contractor, Monitoring Consultant (MC) and the PWD Field Division.

5. *Variation Works.* Variations have been issued to the OPRC contract for Bridge works at six locations, 4-laning works at four stretches totaling 12.39 kms and an additional 3.4 kms from ITI Chowk to Jassi Chowk as extension of section B8. Bridge works comprising widening and reconstruction of existing bridges have started at three locations (km 54-040, km 69+800 and km 73+450 on S2). PRBDB has targeted to complete these works by loan closing. It was agreed that the PRBDB will start the works on remaining two bridges on S2 and after the loan closure, will complete with Government own funds. 4-laning works have progressed substantially at Bhikhi (1.67 kms) & Maur (2.03 kms) on section S2 and for 7.29 kms on section S3. 4-laning works at Cheema (1.4 kms) on section S2 have experienced delays due to delays with removal of electric poles. PRBDB however expects to complete all 4-laning works including at Cheema by loan closing.

6. *Quality of Works.* November 2015 mission had noted that the cracks were reappearing in the areas of first year works on S2 (Km 2.240 to KM 18) where the cracks were sealed earlier. The Bank's Expert Pavement Consultant had visited in February 2016 and had suggested the Contractor to carry out further investigation on failed sections to determine the cause of cracking & deformation and propose remedial works to eliminate further recurrence of failure. The August 2016 mission was informed that, during April-May 2016, extensive repair works were carried out in first year works on S2 (Km 2+240 to 18+150 and Km 68-79). The Contractor has submitted its Report on remedial works (including investigation during the monsoon period) in March 2017, which is presently under review by the Monitoring Consultant (MC). The Mission was informed that no further cracks and/or ruts have appeared in the pavement.

7. The Contractor has carried out the works at the minor junctions, some rectification works ongoing. Attention needs to be given for proper road-side drainage arrangements and water flow arrangements through the culverts.

8. *Issues requiring Forest Department cooperation.* The Mission noted hips of earth lying beyond shoulder along the line of trees, affecting the drainage. The Mission was informed that those earth are lying there for long and the Forest Department does not allow PWD to remove those. Those earth obviously cause obstruction to storm water drainage as well as the road looks unclean. In addition, overgrown vegetation and branches of the trees are obstructing the visibility of the road sign, and their removal also needs approval of the Forest Department. The Secretary of PWD has been asked by the mission to take up the matter with the Forest Department as an urgent matter.

9. *Permanent Safety Measures.* Speed calming measures (such as, vibrating rumble strips, speed table accompanied with raised reflective pavement markers and sign boards) have been incorporated on the network, however, they need to be applied consistently, paying special attention to speed management at all settlements and school areas. Wire Rope Safety Barrier has been installed in a number of locations. It has been agreed that safety barriers will be installed along the high embankment ditch on S1 section and existing concrete bollards removed. Safety measures like Retro-reflectors and other measures may be installed at places where trees and/or utilities are close to the pavement edges. In addition, appropriate safety measures like rumble strips, sign boards, etc are required to be placed at the approach from the side roads. The MC need to continue analysis of the crash data to determine if any further road safety enhancements need to be put in place on the network.

10. *Network performance measurements and Payments:* The mission was informed that the roughness data is being now being collected by the monitoring consultant using Road Measurement Data Acquisition System (ROMDAS) of PWD. The contractor continues to collect same using the Profilometer. The mission has been informed that the roughness data for the sections already completed have been collected and the verification of the data carried out by the MC indicates minimum discrepancy in values. The deflection data continues to be collected. During the period of monitoring by the monitoring consultant, he has made a total deduction of Rs. 26 lakhs from network performance payments. The mission has urged that the residual value of the pavement be assessed on an ongoing basis, commencing immediately to understand the behavior of the pavement and has requested that the services of the pavement specialist of the MC be sought for this purpose.

11. *Asset management system of the contractor:* A database has been created to record primary road data on the OPRC network which is not GIS based. The PRBDB was advised to obtain the data already collected by the OPRC contractor in order to populate the asset management system that has been created within PWD through the efforts for computerization.

12. *Monitoring Consultant:* The mission has observed the absence of timely inputs and availability of some key expertise from the MC that has started to affect the quality of the performance of MC that is also affecting the successful implementation of the OPRC contract. The mission was deeply concerned with the distrust between the PRBDB and the MC that appears to have arisen as due to a number of actions now resulting in unavailability of key staff, disputes over payments, and the quality of services being provided by MC. Some of these disputes relate to interpretation of the services contract, facilities to be provided by PRBDB, payment of fees commensurate with experience and qualifications, scheduling of site visits etc. The mission had strongly advised both the PRBDB and the MC that efforts should be made to resolve differences immediately together with all pending issues in order to ensure that the outputs of the projects

do not suffer. The mission has suggested that bi-monthly meetings be called by the PRBDB with participation from PRBDB, MC and the OPRC contractor to discuss progress of the project and take appropriate action where participation should be by the decision makers within these organizations. The PRBDB has expressed their interest in continuing the services of the MC until the expiration of the MC contract.

13. *Contract Disputes:* The only unresolved dispute under the OPRC contract is yet in Arbitration and relates to the calculation of price adjustment. No further disputes have been taken to Dispute Resolution Board.

14. *Work zone accidents.* In the previous Aide-Memoire and Management Letter the Bank expressed concerns about management of safety during construction and inadequate reporting of work zone accidents. The mission again discussed the cases and reporting with PRBDB, contractor and the MC, and raised the issue with the Secretary PWD.

15. *Sustainability of the OPRC contract.* The OPRC contract will continue for another 5 years after the Bank funded project closes. The meetings with the Secretary of PWD and Chief Secretary of GoP confirmed interest and commitment of the government to continue implementation of the contract even after the Bank project closes in June 2017. To ensure sustainability of the funding flow for OPRC the GoP plans to toll the S-2 section of the OPRC. The government is also interested to have expand OPRC into another section of the network, under a possible new project.

16. **Works Contract for Construction of Approaches to Road over Rail Bridge (RoB).** The EPC Contract for Construction of Approaches to the RoB at Level Crossing No. 227B on Delhi-Bhatinda rail section near Bhaibakhtaur village in Bhawanigarh-Kot Shamir road section (S2) of INR 225 million has started. Abutment and Pier works are ongoing. Installation of RE Walls has started for the embankment part. The Contractor is yet to start pre-casting of girders (including pre-stressed girders). The Contractor will be able to erect the girders for the last spans on both sides after the Pier Caps are completed by Railways. This contract works are unlikely to be completed by loan closing. Railways have undertaken construction of the main RoB within the railway land. They are building two spans and three Piers.

17. **Additional Road Works.** Four Additional Roads have been taken up. These Roads are generally having 10m / 7m wide carriageway with some variations, carry high volume of traffic, and condition of the pavement is fair to poor condition, thus requiring rehabilitation and strengthening of pavement. The works include rehabilitation and strengthening of pavement without any widening of the carriageway and of the roadway width. Pavement of these Roads has been designed for 10 years life. The rehabilitation works include, inter-alia, appropriate traffic safety & management measures and surface water drainage arrangements. The micro plan for 9 non-titleholder families have been approved and R&R assistance to these families amounting to Rs. 2,33,955.00 have been disbursed.

18. The works have been taken up under four EPC contracts (of total value INR 563 million): (i) Dera Bassi-Barwala Road, State Highway 09 (km 0.000 to km 7.200) and Dera Bassi-Mubarikpur-Ramgarh Road, Other District Road 03&06 (km 0.000 to km 7.400), (ii) Khanna-Malerkotla Road, Major District Road 33 (km 0.000 to km 23.910 and km 32.600 to km 38.600), (iii) Sunam-Lehragaga-Jakhal Road, Major District Road 21 (km 0.000 to km 25.200) and (iv) Sunam-Lehragaga-Jakhal Road, Major District Road 21 (km 25.200 to km 37.800). All four contracts have a 3-year Maintenance Period after completion of the works. The bridge works on Sunam-Lehragaga-Jakhal Road have been taken up under a separate contract outside of Bank financing.

19. All four contracts are progressing reasonably well, and the works are likely to be completed before the loan closing. All road junctions will be appropriately improved for safe traffic movement. Retro-reflective markers will be fitted to trees, poles and other obstructions close to the pavement edge. Road shoulders are required to be finished to proper levels and slope. The Mission suggested the Contractors to take adequate care for smooth matching of the top surface along the centerline and improve the riding quality of the finished pavement.

20. ***Environmental Management and safeguards***

21. The Mission visited the OPRC network sections, along with new & old campsites to examine the status of implementation of Environmental Management Plan. The mission held discussions with the Monitoring Consultant's (MC) Environment Specialist, Contractor's Environment team and PRBDB's Environment Officer. The mission noted that the EHS management at both new and campsites was satisfactory. However, it was observed that there has been deterioration in environmental management on the road links visited, particularly on the S2 link. This includes shoulder maintenance, vegetation control and drainage clearance. The details of the mission observations are attached in Annex 3. Overall, the Environmental rating is retained at Moderately Satisfactory (MS)

22. **Social safeguards.**

23. The four laning section has impacted 220 non-titleholder households. The micro plan for R&R assistances have been approved. Each household will receive Rs. 25, 995.00 as assistance. So far 180 households have received their due amount. The balance 40 could not be paid as there were discrepancies in names and bank account number. PRBDB is in the process of rectifying the discrepancy. The amount will be disbursed by the mid- May 2017.

24. In order to create awareness regarding HIV / ADIS among the community members, contractor's workforce and PRBDB engineers, contractor has conducted 14 workshops of which 5 were conducted in the year 2016. The workshops apart from focusing on high risk behavior, also emphasized on improved sanitation and hygiene factors.

25. Labor Camps. The contractor M/S Patel Infrastructure Pvt. Ltd. Obtained original labour license in 2013 which is being regularly renewed. The last renewal was in November 2016 for a year. There are two labour camps situated more than a kilometer away from the nearest habitation. Though currently contractor has employed 135 contract labourers, only 11 are migrant labourer. No women labour has been hired. The camp condition was found to be good with proper accommodation and sanitation facilities.

26. **Construction of the Dehlon Bypass.** The contract has been awarded at the end of 2016. The compensation to landowners is ongoing, however, there is a challenge in one section (plot Khata number 590 in Dehlon village owned by 38 titleholders) due to deficiency with land records, where it is urgently required to find solution. No works can start on affected slot if the compensation payments are not complete. The PRBDB is asked to work with Punjab government officials to expedite the process. There are 6 more similar cases though they have not approached GRC. The mission discussed possible solutions with the Secretary of PWD, who promised to personally engage with the district officials to resolve the issue.

27. **Improvement of Black Spots on Core Road Network.** Following identification of 200 black spots, PWD has commissioned a works contract (of INR 587 million) for Improvement of Black Spots on the Core Network in the state of Punjab. The Mission visited a couple of roads as sample and expressed its appreciation to the good works being carried out by Punjab PWD in this respect. It has been agreed that PRBDB will ensure consistency of treatments with those applied under the Road Safety Improvement Works program.

28. **Improvement of Road Safety on the State Road Network.** Following road safety assessment of the 4539 km of the highway network of Punjab, PWD has commissioned seven works contracts (for seven geographical areas) for Road Safety works of total value INR 1076 million. The Mission visited a few work areas and appreciates such initiative by the Punjab PWD. It was recommended to apply uniformly speed reduction measures (speed tables) for all settlements and school zone areas. Overall, the road safety improvements will be done for 5715 minor junctions, 3957 curves, 678 school zones and 1108 villages with gateway treatments. It is expected that such intensive improvements on the entire network should bring the expected benefits of saving lives and reducing injuries on the roads. The mission has highly praised the GoP for such an initiative.

29. **Computerization of PWD:** The mission discussed implementation of the computerization project for Punjab PWD and noted good progress with development of the system. The core modules of the system are ready. These have also been tested by the end users and have been found to be meeting the end user requirements. The cloud services of NIC through "Meghraj" have been acquired and the developed system shall be hosted through this cloud Infrastructure. The system will go live for use with in PwD on the 24th of May.

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30. To ensure mainstreaming of the developed system in PwD and to ensure that the system gets effectively utilized following initiatives may be considered:

- Enhancing the strength of the IT cell at PwD.
- undertaking continuous training of the field staff over the next couple of years. The project caters for this requirement.
- Creation of an IT training and testing center at PwD to facilitate training on IT systems and testing of new systems as they get developed at PwD. A small centre has already been created at PRBDB for the purpose. However this centre needs to be made in to a state of the art centre with facilities for centralized testing of the software, presentation technologies and training facilities.
- Undertaking suitable communication exercise to make the developed system properly known to all the staff in PwD.
- The government may decide to do away with physical processing of DPRs and other project related documents once the system becomes operational at the department.

31. **Monitoring and Evaluation of Project Indicators and Road User Satisfaction Survey:** The survey and data collection are ongoing and will be ready by the project closing date. The mission discussed the initial findings of the study. The draft report is expected by May 20, 2017. This data will be used in preparation of the Implementation Completion Report for the project.

### 32. Financial Management

33. A mission was conducted to assess the continuing adequacy of the financial management arrangements of the project. The mission noted the progress made against agreed actions from the previous mission and areas which require further attention and steps to be taken. Also highlighted and discussed the house-keeping/closure activities (such as retention money payment, grace period, questionable/ineligible expenditure etc.) for smooth closure of the loan. The recent developments and key issues are highlighted below:

34. *Budgeting:* As against the budgetary sanction for Rs1 billion for FY 2015-16, Rs0.72 billion has been utilized. For FY 2016-17, initially budget was approved for Rs3.2 billion, which is later reduced to Rs2.08 billion. Total funds released to PRBDB by treasury so far is Rs1.63 billion and expenditure incurred for the project till March 31, 2017 is Rs1.95 billion. A delay in release of funds observed during this year. A budget proposal for Rs3.15 billion has been proposed by PRBDB for this FY, which is under process. Out of this at least Rs1 billion is expected to be released by April 30, 2017. The project financial staff has been advised to give a regular update on the fund status of the project.

35. *IUF and Disbursement:* Total disbursement from the Bank as on April 11, 2017 is USD220.99 million (including outstanding designated account advance of USD14.68 million) which represents 88.4% of the loan of USD 250 million. Expenditure till the period ending December 31, 2016 has been documented in the World Bank records. For the quarter ending March 31, 2017, the project has spent Rs620 million which will result in further documentation of approximately USD8.14 million at the revised applicable financing percentage of 85%.

36. The mission noticed that the incidental charges related to arbitration (like fees to advocate) between M/s Patel Infrastructure Pvt. Ltd. and PRBDB, are claimed under IOC. The mission informed the team that these expenditure are not eligible for financing from the Bank's fund and need to be deducted from the subsequent claim.

37. *External Audit:* The external audit for FY 2016-17 is completed by the state AG and the audit report has been submitted on time. The project is working with AG towards dropping the audit paras for FY 13-14 to FY 15-16. It was informed to the project team that the unresolved audit observations would be declared as ineligible expenditure and to be refunded by the project to the World Bank. The project team was also advised to provide a response to the audit review letter at the earliest.

38. Based on the above the financial management performance rating is retained at Moderately Satisfactory.

#### **Procurement**

39. The mission reviewed the progress on procurement, and main issues are summarized below:

40. *Procurement Plan:* Project has updated the Procurement Plan showing the latest status of each contract was received on April 17, 2017, which is attached as Annex 2.

41. *Procurement Status:* The mission reviewed various procurement aspects and noted that majority of contracts have been awarded and only a few of them remain to be completed notable amongst them being the 'OPRC Sangrur-Mansa-Bhatinda Contract', and Monitoring Consultant-Pkg. 21'. Contracts still to be procured include one Goods package for procurement of hardware for computerization for which bid will be opened on April 24, 2017 and contract is expected to be completed by May 31, 2017.

42. *Completion of Procurement Activities:* The project was advised to expedite completion of ongoing contracts and early procurement of remaining package, as any liability carried beyond the closing date of the Bank Loan, will have to be borne by the government.

43. *Post Procurement Review:* Mission was informed that all procurement has been completed except procurement of hardware for computerization. It was agreed that the list of post-review contracts issued during July 1, 2016 to June 05, 2017 will be shared with the Bank at the earliest to enable the Bank to conduct the next procurement post-review.

44. *Procurement Rating:* Procurement is rated as 'Satisfactory'.

#### **45. Closing date and Implementation Completion Report.**

46. The closing date for the loan would be current closing date of June 05, 2017. This means that all goods, works and services procured must be delivered, completed and rendered by June 05, 2017. All withdrawal applications for eligible expenditure (i.e. goods, works and services that have been provided prior to the closing date) needs to be submitted to World Bank by close of business on October 05, 2017.

47. The mission discussed preparation for the ICR and confirmed the inputs required from PRBDB. It was agreed that the draft report from PRBDB will be submitted to the Bank by end of May.

48. **Potential new project.** In the meeting with the Chief Secretary, the mission was informed about the interest of the government of Punjab to consider another project with the World Bank financing. The GoP is interested to continue with OPRC for another section of the road network with possible engagement of the private financing, as well as support improving road safety in the state and strengthening its capacity. It was agreed that PRBDB will start working on the concept and will discussed it further with the DEA and the Bank during the upcoming mission in May.

49. **Next Implementation Completion Mission.** The last implementation support mission is planned for May 22-26, 2017.

Annex 1.

Actions Agreed During the Mission

| No.  | Key Actions  | By whom             | Target Date    |
|--|--|---------------------|----------------|
| <b>Civil Works</b>                           |  |                     |                |
| 1.   | Complete 4-laning works on OPRC contract   | OPRC Contractor     | May 20, 2017   |
| 2  | Remove electric poles in Cheema  | Punjab Gov          | April 15, 2017 |
| 3  | Complete widening of 3 narrow bridges on OPRC  | OPRC Contractor     | May 20, 2017   |
| 4  | Complete improvement of major intersections on OPRC network  | OPRC Contractor     | May 20, 2017   |
| 5  | Complete improvement of all minor junctions on OPRC  | OPRC Contractor     | April 30, 2017 |
| 6  | Finalize installation of road safety treatments on OPRC, including speed reduction measures at schools and in settlements, crash barrier on S1 and hazardous object markers at all culverts and other roadside hazards | OPRC Contractor     | April 30, 2017 |
| 7  | Complete remediation works on 11 blackspots on OPRC network  | OPRC Contractor     | April 30, 2017 |
| 8  | Submit roughness, traffic and deflection data on OPRC  | OPRC Contractor, MC | April 12, 2017 |
| 9  | Reach approval of the Forest department on soil removal for drainage and removal of overgrown vegetation in front of traffic signs   | Punjab Government   | April 20, 2017 |
| 10   | Complete construction of approach road for ROB   | Contractor          | May 20, 2017   |
| 11   | Complete works on additional roads   | Contractor          | May 20, 2017   |
| 12   | Complete works on Dehlon Bypass  | Contractor          | May 20, 2017   |
| 13   | Complete work on blackspots remediation on Punjab network  | Contractor          | May 20, 2017   |
| 14   | Complete road safety improvement works on Punjab network   | Contractor          | May 20, 2017   |
| <b>Institutional Strengthening Component</b> |  |                     |                |
| 15   | Monitoring and Evaluation of Project Indicators and RUSS – submit draft Final report to the Bank   | PRBDB               | April 25, 2017 |
| 16   | Provide road condition data collected on 673 km and on OPRC network to computerization contractor for entering in asset management system  | PRBDB               | April 20, 2017 |
| 17   | Complete training of PWD staff in modules  | Contractor          | May 15, 2017   |
| 18   | Complete development of the system and launch it live  | Contractor          | May 24, 2017   |
| <b>Environment Safeguards</b>                |  |                     |                |
| 19   | Complete removal of construction debris on OPRC network  | OPRC Contractor     | April 20, 2017 |
| 20   | Provide approved rehabilitation plan for old campsite to the Bank  | OPRC Contractor     | April 20, 2017 |
| <b>Social Safeguards</b>                     |  |                     |                |
| 21   | Complete payments of R&R assistance for 4-laning   | PRBDB               | April 20, 2017 |
| 22   | Prepare report on fatal accidents involving contractor staff and machinery and submit to the Bank  | PRBDB               | April 20, 2017 |
| 23   | Resolve compensation issue on LA for Dehlon Bypass   | Punjab Government   | April 20, 2017 |
| <b>Financial Management</b>                  |  |                     |                |
| 24   | Finance manager to make field visit at minimum monthly frequency   | PRBDB               | Continuous     |
| 25   | Monitoring Consultant to also review financial aspect of IPC   | PRBDB/ Consultant   | Continuous     |
| 26   | Submit IUFRR for the quarter ending March 31, 2017   | PRBDB               | May 15, 2017   |
| 27   | Reply to the audit review letter   | PRBDB               | April 30, 2017 |



| Project Closure |  |       |              |
|-----------------|--|-------|--------------|
| 28              | Prepare draft Completion Report and submit to the Bank | PRBDB | May 20, 2017 |
|                 |  |       |              |

INDIA – Punjab State Road Sector Project  
Implementation Support Mission

April 2017  
Aide Memoire

Procurement Management Plan (April, 2017)

A. WORKS

Exchange Rate as per PAD 1 USD = ₹ 45.64  
Current Exchange Rate = ₹ 67.00

| Ref. No.  | Contract Description (length)   | Contract Price         | Modified Final Price   | Contract/ Bid Price (USD million) | Procurement Method | Review by Bank (Prior/ Post) | Bid-Opening Date | Comments   |
|---|---|------------------------|------------------------|-----------------------------------|--------------------|------------------------------|------------------|--|
| <b>PHASE I</b>  |   |                        |                        |                                   |                    |                              |                  |  |
| <b>Rehabilitation</b>   |   |                        |                        |                                   |                    |                              |                  |  |
| WB/PSRSP/RH/1/NCB   | Rehabilitation of Ferozepur-Zira Road (34.46km)   | ₹ 441,421,399          | ₹ 427,282,620          | 9.36                              | NCB                | Prior                        | 19/Oct/06        | Work Completed   |
| WB/PSRSP/RH/2/NCB   | Rehabilitation of Chandigarh-Landran-Chunni-Sirhind (37.27km)   | ₹ 439,182,400          | ₹ 439,182,400          | 9.62                              | NCB                | Prior                        | 20/Oct/06        | Work Completed   |
| WB/PSRSP/RH/3/NCB   | Rehabilitation of Phillaur-Aur-Rahon-Nagar(33.51km)   | ₹ 468,556,883          | ₹ 523,629,156          | 11.47                             | NCB                | Post                         | 18/Oct/06        | Work Completed   |
| WB/PSRSP/RH/4/NCB   | Rehabilitation of Kapurthala-Tarn Taran (47.20km)   | ₹ 546,953,626          | ₹ 545,595,268          | 11.95                             | ICB                | Prior                        | 22/Nov/06        | Work Completed   |
| WB/PSRSP/RH/5/NCB   | Rehabilitation of Zira-Dharamkot (24.70km)  | ₹ 347,308,823          | ₹ 369,674,767          | 8.10                              | NCB                | Prior                        | 23/Oct/06        | Work Completed   |
| WB/PSRSP/RH/6/NCB   | Rehabilitation of Sirhind-Patiala (28.30 km)  | ₹ 242,837,229          | ₹ 249,376,928          | 5.46                              | NCB                | Post                         | 6/Aug/07         | Work Completed   |
| <b>Total Rehabilitation</b>   |   | <b>₹ 2,486,260,302</b> | <b>₹ 2,554,741,139</b> | <b>55.98</b>                      |                    |                              |                  |  |
| <b>Upgradation</b>  |   |                        |                        |                                   |                    |                              |                  |  |
| WB/PSRSP/UG/1/NCB   | Upgradation of Kharar-Landran-Banur-Tepla (39.53km)   | ₹ 1,089,842,533        | ₹ 1,089,842,533        | 23.88                             | ICB                | Prior                        | 30/Nov/06        | Work Completed   |
| WB/PSRSP/UG/2/NCB   | Upgradation of Ludhiana-Malerkotla-Sangrur (71.92km)  | ₹ 2,260,363,806        | ₹ 2,260,363,806        | 49.53                             | ICB                | Prior                        | 1/Dec/06         | Work Completed   |
| WB/PSRSP/UG/3/NCB   | Upgradation of Attari-Chabbal-Tarn Taran (including Junction at Tarn Taran) (40.50km)   | ₹ 452,619,208          | ₹ 449,503,857          | 9.85                              | NCB                | Prior                        | 24/Oct/06        | Work Completed   |
| <b>Total Upgradation</b>  |   | <b>₹ 3,803,845,549</b> | <b>₹ 3,799,730,196</b> | <b>83.25</b>                      |                    |                              |                  |  |
| <b>Periodic Maintenance</b>   |   |                        |                        |                                   |                    |                              |                  |  |
| WB/PSRSP/PM/1/NCB   | Periodic Maintenance of Ajnala-Ramdass-Cheharta-Dhand Biv Road  | ₹ 52,615,950           | ₹ 52,615,950           | 1.15                              | NCB                | Prior                        | 7/Aug/06         | Work Completed   |
|   | Cheharta-Dand Biv road  |                        |                        |                                   |                    |                              | 7/Aug/06         | Work Completed   |
| WB/PSRSP/PM/2/NCB   | Periodic Maintenance of Gurdaspur Sri Hargobindpur road   | ₹ 96,961,910           | ₹ 96,961,910           | 2.12                              | NCB                | Prior                        | 10/Aug/06        | Work Completed   |
| WB/PSRSP/PM/3/NCB   | Periodic Maintenance of Longowal-Sunam, Badbar Longowal Road  | ₹ 33,743,221           | ₹ 33,743,221           | 0.74                              | NCB                | Prior                        | 27/Jul/06        | Work Completed   |
|   | Pakhoy-Tappa Road   | ₹ 30,573,404           | ₹ 30,573,404           | 0.67                              | NCB                | Prior                        | 27/Jul/06        | Work Completed   |
| WB/PSRSP/PM/4/NCB   | Periodic Maintenance of Khanna-Samrala-Nawanshahr-Garhsbhar road  | ₹ 128,590,060          | ₹ 128,590,060          | 2.82                              | NCB                | Post                         | 1/Dec/06         | Work Completed   |
| WB/PSRSP/PM/5/NCB   | Periodic Maintenance of Kapurthala-Taslipur, Sullanpur Dalla & Dadwandi-Sultanpur road  | ₹ 52,227,571           | ₹ 52,227,571           | 1.14                              | NCB                | Prior                        | 2/Nov/06         | Work Completed   |
| WB/PSRSP/PM/6/NCB   | Periodic Maintenance of Sitogana-Dabwali road   | ₹ 34,494,278           | ₹ 34,494,278           | 0.76                              | NCB                | Prior                        | 17/Aug/06        | Work Completed   |
| WB/PSRSP/PM/7/NCB   | Periodic Maintenance of Faridkot to Ferozepur road  | ₹ 44,175,882           | ₹ 44,175,882           | 0.97                              | NCB                | Prior                        | 22/Aug/06        | Work Completed   |
| WB/PSRSP/PM/10/NCB  | Periodic Maintenance of Bagha Purana-Bhagta Bhucho road   | ₹ 73,470,743           | ₹ 73,470,743           | 1.61                              | NCB                | Prior                        | 31/Jul/06        | Work Completed   |
| WB/PSRSP/PM/11/NCB  | Periodic Maintenance of Sri Hargobindpur-Batala-Dera Baba Nanak Road  | ₹ 79,000,146           | ₹ 79,000,146           | 1.73                              | NCB                | Prior                        | 14/Aug/06        | Work Completed   |
| <b>Total Periodic Maintenance</b>   |   | <b>₹ 625,853,170</b>   | <b>₹ 625,853,170</b>   | <b>13.71</b>                      |                    |                              |                  |  |
| <b>Total Phase I</b>  |   | <b>₹ 6,915,159,031</b> | <b>₹ 6,880,324,507</b> | <b>152.94</b>                     |                    |                              |                  |  |
| <b>PHASE II</b>   |   |                        |                        |                                   |                    |                              |                  |  |
| <b>Output and Performance based Road Contract for Improvement, Rehabilitation, Resurfacing &amp; Routine Maintenance Works of Roads of-</b> |   |                        |                        |                                   |                    |                              |                  |  |
| WB/PSRSP/OPBC/NCB   | Sangrur-Mansa-Balinda Contract Area with approx. length of 204.0 km   | ₹ 5,963,614,900        | ₹ 5,963,614,900        | 89.01                             | ICB                | Prior                        | 26/Apr/12        | Contract Agreement signed with M/s Patel Infrastructure Pvt. Ltd. on 10th Dec, 2012 and the work is under progress. Expected date of completion is 10th Dec, 2022      |
| <b>Total (OPBC)</b>   |   | <b>₹ 5,963,614,900</b> | <b>₹ 5,963,614,900</b> | <b>89.01</b>                      |                    |                              |                  |  |
| <b>Additional Crust for Increasing the Structural Adequacy of Pavement Structure on UG-1</b>  |   |                        |                        |                                   |                    |                              |                  |  |
| WB/PSRSP/2014/1/NCB   | The work for increasing the structural adequacy of pavement structure on UG/1   | ₹ 183,400,000          | ₹ 183,400,000          | 2.74                              | NCB                | Post                         | 19/Feb/14        | Work Completed   |
| <b>Total (Structural Adequacy)</b>  |   | <b>₹ 183,400,000</b>   | <b>₹ 183,400,000</b>   | <b>2.74</b>                       |                    |                              |                  |  |
| <b>Road Safety Enhancement and Black Spot Improvements</b>  |   |                        |                        |                                   |                    |                              |                  |  |
| WB/PSRSP/RS/1/NCB   | Road Safety Measures on Phase-I roads   | ₹ 66,077,670           | ₹ 99,249,448           | 1.48                              | NCB                | Prior                        |                  | Work Completed   |
| WB/PSRSP/RS/2/NCB   | Procurement of Works for Improvement of Black Spots on Core Road Network of Punjab  | ₹ 586,676,733          | ₹ 586,676,733          | 8.76                              | NCB                | Prior                        | 30/Dec/15        | The Contract Agreement with L-1 bidder, M/s MG MC-058 JV has been signed on Aug 16, 2016 and the work is in progress. The expected date of completion is May 31, 2017. |
| WB/PSRSP/RS/3/NCB   | Works for Improvement of Road Safety on Non-Core Road Network under the jurisdiction of Balhinda & Sangrur Circles of PWD (B&R)             | ₹ 183,152,904          | ₹ 183,152,904          | 2.73                              | NCB                | Post                         | 30/Nov/16        | The Contract stands awarded to M/s HDPL - Shivam - Descon (JV), Rajpura and the work is in progress. The expected date of completion is May 31, 2017                   |
| WB/PSRSP/RS/5/NCB   | Works for Improvement of Road Safety on Non-Core Road Network under the jurisdiction of Ferozepur & Faridkot Circles of PWD (B&R)           | ₹ 88,756,270           | ₹ 88,756,270           | 1.32                              | NCB                | Post                         | 30/Nov/16        | The Contract stands awarded to M/s HDPL - Shivam - Descon (JV), Rajpura and the work is in progress. The expected date of completion is May 31, 2017                   |
| WB/PSRSP/RS/6/NCB   | Works for Improvement of Road Safety on Non-Core Road Network under the jurisdiction of Ludhiana Circle of PWD (B&R)                        | ₹ 108,889,093          | ₹ 108,889,093          | 2.97                              | NCB                | Post                         | 30/Nov/16        | The Contract stands awarded to M/s HDPL - Shivam - Descon (JV), Rajpura and the work is in progress. The expected date of completion is May 31, 2017                   |
| WB/PSRSP/RS/2/NCB   | Works for Improvement of Road Safety on Non-Core Road Network under the jurisdiction of Patbankot Circle of PWD (B&R)                       | ₹ 248,458,962          | ₹ 248,458,962          | 2.22                              | NCB                | Post                         | 30/Nov/16        | The Contract stands awarded to M/s HDPL - Shivam - Descon (JV), Rajpura and the work is in progress. The expected date of completion is May 31, 2017                   |
| WB/PSRSP/RS/7/NCB   | Works for Improvement of Road Safety on Non-Core Road Network under the jurisdiction of Jalandhar - I & Jalandhar - II Circles of PWD (B&R) | ₹ 102,874,889          | ₹ 102,874,889          | 2.85                              | NCB                | Post                         | 30/Nov/16        | The Contract stands awarded to M/s Union Builders and Contractors, Barnala and the work is in progress. The expected date of completion is May 31, 2017                |
| WB/PSRSP/RS/8/NCB   | Works for Improvement of Road Safety on Non-Core Road Network under the jurisdiction of Chandigarh & Hoshiarpur Circles of PWD (B&R)        | ₹ 117,826,525          | ₹ 117,826,525          | 2.76                              | NCB                | Post                         | 30/Nov/16        | The Contract stands awarded to M/s HDPL - Shivam - Descon (JV), Rajpura and the work is in progress. The expected date of completion is May 31, 2017                   |

**B. GOODS**

| Ref. No.            | Contract Description   | Contract Price /Estimated contract value (in ₹) | Modified Price (in ₹) | Contract/ Estimated Bid Price (USD million) | Procurement Method   | Prequalification (yes/no) | Domestic Preference (Yes/No) | Review by Bank (Yes / No) | Bid-Opening Date        |
|---------------------|--|---|-----------------------|---|--|---------------------------|------------------------------|---------------------------|-------------------------|
|                     | Asset Management Equipment (Profilometer and falling weight deflectometer etc.)                                    | ₹ 33,500,000                                    | -                     | 0.50  | ICB  | No                        | No                           | Prior                     | Jan-09                  |
|                     | Road Safety Goods (including procurement of GPS); several packages but no individual package to exceed 50,000 USD. | ₹ 16,750,000                                    | -                     | 0.25  | No road safety goods are to be procured. The Procurement of hand held ( done using the Shopping method of proc |                           |                              |                           |                         |
|                     | Procurement of GPS (400 units)   | ₹ 2,814,000                                     | -                     | 0.042                                       | Shopping   | No                        | No                           | Post                      | 24 Feb 2009 (GPS Units) |
|                     | Procurement of LCD projectors (7 nos)  | ₹ 335,000                                       | -                     | 0.005                                       | Shopping   | No                        | No                           | Post                      | 23/Jun/08               |
|                     | Procurement of DVD players, projection screens, amplifier & speakers   | Dropped   |                       |   |  |                           |                              |                           |                         |
|                     | HIV/AIDS – Dispensing Machines   | Dropped   |                       |   |  |                           |                              |                           |                         |
|                     | Procurement of Digital maps, Satellite Images  | ₹ 5,366,300                                     | -                     | 0.08  | Direct Contacting  | No                        | No                           | Post                      | Sep-07                  |
|                     | Procurement of equipment for GIS   | ₹ 2,163,831                                     | -                     | 0.03  | Shopping/ NCB  | No                        | No                           | Post                      | Jan-09                  |
| PSRSP/WB/ICT/1 /NCB | Procurement of Contract for Computerization of PWD (B&R), Punjab   | ₹ 68,946,487                                    | -                     | 1.03  | NCB  | No                        | No                           | Prior                     | 10/Mar/16               |
| PSRSP/WB/ICT/2 /NCB | Procurement of Hardware for Computerization of PWD (B&R), Punjab   | ₹ 42,081,910                                    | -                     | 0.63  | NCB  | No                        | No                           | Post                      | 24/Apr/17               |
|                     | Procurement of Retro Reflectometers  | ₹ 1,842,000                                     | -                     | 0.03  | Shopping   | No                        | No                           | Post                      |                         |
| <b>Total</b>        |  | <b>₹ 173,799,528</b>                            |                       | <b>2.59</b>                                 |  |                           |                              |                           |                         |

INDIA – Punjab State Road Sector Project  
Implementation Support Mission

April 2017  
Aide Memoire

| C. SERVICES  |  |  |                    |                           |                   |              |            |   |                           |                             |                 |                    |                           |                    |
|--|--|--|--------------------|---------------------------|-------------------|--------------|------------|---|---------------------------|-----------------------------|-----------------|--------------------|---------------------------|--------------------|
| Ref. No.   | Contract Description   | Estimated Bid / Contract Price (USD million)   | Procurement Method | Review by Bank (Yes / No) | EOT received Date | WB NO to RFP | RFP issued | Date of Receipt of Proposals WB NO to the award of Contract | Date of Award of Contract | Date of Start of Assignment | Completion Date | Status             |                           |                    |
| <b>Phase I</b>   |  |  |                    |                           |                   |              |            |   |                           |                             |                 |                    |                           |                    |
| Package 1 Part A   | Feasibility, environmental and social studies for 1698 km of prioritized roads with the option of assigning technical advisory services for the overall project implementation | 0.47   | QCBS               | Prior                     | 30-Jun-04         | 2-Nov-04     | 11-Nov-04  | 6-Jan-05  | 9-May-05                  | 12-May-05                   | 10-Jun-05       | 21-Aug-07          | Services Completed        |                    |
| Package 1 Part B   | Technical Advisory Services for overall project implementation   |  |                    |                           |                   |              |            |   |                           |                             | Not Assigned    |                    |                           |                    |
| Package 2  | Detailed Project Report for rehabilitation of 205 km with the option of assigning quality assurance and technical support services during construction                         | 0.25   | QCBS               | Prior                     | 30-Sep-04         | 8-Feb-05     | 15-Feb-05  | 1-Apr-05  | 18-Jul-05                 | 22-Jul-05                   | 29-Jul-05       | 30-Nov-06          | Services Completed        |                    |
| Package 2 Part B   | Quality assurance and Technical Support Services during Construction (TAC)   | 0.22   |                    |                           |                   |              |            |   |                           |                             | 26-Mar-07       |                    |                           | 30-Apr-08          |
| The Consultant M/s Becom provided the TAC services as a variation to Package 3 services. |  |  |                    |                           |                   |              |            |   |                           |                             |                 | 1-Jul-08           | 30-Jun-09                 | Services Completed |
| Package 3  | Preparation of detailed Project Reports for upgradation of 152 km length & Construction supervision services   | 0.60   | QCBS               | Prior                     | 18-Oct-04         | 2-Mar-05     | 11-Apr-05  | 5/2/2005  | 9-Sep-05                  | 16-Sep-05                   | 16-Sep-05       | 15-Jun-06          | Services Completed        |                    |
| Package 3 Part B   | Construction Supervision Services (CSC) for Upgradation works during construction.   | 1.34   |                    |                           |                   |              |            |   |                           |                             | 23-Jul-07       |                    |                           | 30-Jun-09          |
| Package 4  | Institutional development studies and development of appropriate action plan.  | 0.47   | QCBS               | Prior                     | 5-Sep-04          | 8-Nov-05     | 14-Nov-05  | 29-Dec-05   | 28-Mar-06                 | 10-Apr-06                   | 17-Apr-06       | 30-Nov-07          | Services Completed        |                    |
| Package 5  | Independent review of the environment and social assessments   | 0.04   | CQS                | Post                      |                   |              | 20-Feb-06  | 13-Apr-06   | 21-Apr-06                 | 21-Apr-06                   | 15-Sep-06       | Services Completed |                           |                    |
| Package 6  | Implementation of RAPs on Phase I works  | 0.13   | QCBS               | Post                      | 31-Jul-06         | 21-Aug-06    | 25-Aug-06  | 28-Sep-06   | Post Review               | 11-Dec-06                   | 13-Dec-06       | 31-May-09          | Services Completed        |                    |
| <b>Total Phase I</b>   |  | <b>3.52</b>                                    |                    |                           |                   |              |            |   |                           |                             |                 |                    |                           |                    |
| <b>Phase II</b>  |  |  |                    |                           |                   |              |            |   |                           |                             |                 |                    |                           |                    |
| Package 1  | Preparation of detailed Project Reports for rehabilitation & upgradation of 258 km length, including construction supervision as the case may be.                              | Consultancy called off                         |                    |                           |                   |              |            |   |                           |                             |                 |                    |                           |                    |
| Package 2  | Devising a program for Output and Performance based contracts for Road Network of about 600 Km   | 1.39   | QBS                | Prior                     | 30-Aug-07         | 16-Nov-07    | 16-Nov-07  | 8/Feb/08  | 10-Jul-08                 | 24-Jul-08                   | 7-Aug-08        | 22-Nov-09          | Services Completed        |                    |
| Package 3  | HIV/AIDS Awareness   | 0.262  | QCBS               | Post                      | 19-Feb-07         | Post Review  | 11-Apr-07  | 23-May-07   | 9-Nov-07                  | 19-Nov-07                   | 18-Dec-07       | 18-Nov-11          | Services Completed        |                    |
| Package 4  | Reclassification of Road Network   | Consultancy called off. To be done through PWD |                    |                           |                   |              |            |   |                           |                             |                 |                    |                           |                    |
| Package 5  | Preparation of GIS maps for Road Networks in Punjab  |  | Single Source      | Post                      |                   |              |            |   |                           |                             | 25-Jul-07       | 24-Jan-08          | Services completed        |                    |
|  | Collection of field data for major highways and bridges (Supplementary Contract Agreement)   |  |                    |                           |                   |              |            |   |                           |                             | 12-Oct-09       |                    |                           | 11-Apr-10          |
| Package 6  | Integrated Transport Policy and Strategy and Strategic Investment Plans Study  | 0.93   | QBS                | Prior                     | 22-Apr-08         | 19-Jul-08    | 22-Jul-08  | 6-Oct-08  | 11-Nov-08                 | 25-Aug-09                   | 30-Jun-11       | Services Completed |                           |                    |
| Package 7  | Development of Road Safety Strategy and Generating Awareness on Traffic and Road Safety  | 0.45   | QCBS               | Prior                     | 17-Apr-09         | 10-Nov-09    | 20-Nov-09  | 29-Mar-10   | 16-Oct-10                 | 1-Nov-10                    | 30-Jun-16       | Services Completed |                           |                    |
| Package 8  | Development of Road Safety Strategies  |  | QBS                |                           |                   |              |            |   |                           |                             |                 |                    | This Consultancy has been |                    |

Annex3.

### **Environmental Management & Safeguards**

The mission noted that while there has been improvement in EMP implementation at campsite, the environment management on the OPRC road links has deteriorated, particularly with regards to piling of earthworks & aggregates on road side. However, the mission recognized that disclosure of Environment Assessment & Environment Management Plans for Additional Roads & RoB has been carried out. Therefore, the Environmental rating is retained at **Moderately Satisfactory (MS)**.

### **OPRC Works**

The Mission visited S1, S2, S3, S5 and B08 links of OPRC works, along with new & old campsite to examine the status of implementation of Environmental Management Plan. The mission also held discussions with the Monitoring Consultant's (MC) Environment Specialist, Contractor's Environment team and PRBDB's Environment Officer. The mission noted that the EHS management at both new and campsite was satisfactory. However, it was observed that there has been deterioration in environmental management on the road links visited, particularly on the S2 link. The following are the detailed observations of site visit:

#### Road Sections (S1, S2, S3, S5 and B08 links)

- i. The mission observed that shoulders have not been cleaned of vegetation and maintained at all the road sections visited.
- ii. It was observed that culvert cleaning has not been carried out at many places on all the road sections, particularly along the S2 link.
- iii. Excavated earth was found to be lying over and beyond earthen shoulder along road at many places in the road sections (notably S2 link).
- iv. Safety signage (such as warning signs, delineators with retro reflective tapes, sand bags) was observed in the road sections where construction works was being carried out. However, it was noted that at certain sections, the IRC guidelines were not followed for the same.

#### New Campsite:-

- i. The mission was informed that Contractor has enhanced the capacity of the STP, post consultation with MC & PRBDB. During visit, the STP was found to be in working condition. The mission suggested that MC send a NC closure report on STP to PRBDB and same is included in next QPR submission.
- ii. It was observed that fencing has been provided all around at the camp site.
- iii. Dust barrier – The dust barriers & green mesh were observed to be maintained well at the site.
- iv. Green Belt/Tree Plantation – It was observed that Green Belt/Tree Plantation during time of visit had improved with more number of saplings/trees present. The green belt needs to be maintained regularly.
- v. Electrical Safety – It was observed that electrical safety at the camp site has improved, with danger signs displayed at some of the places (i.e. DG sets, electrical control panels. etc). The electrical panels in the open have been provided shed to protect them from rains.
- vi. Stock Pile Management – The stock pile management has been improved at the campsite, with designated areas for stockpiling.
- vii. Accommodation rooms provided to workers in the campsite have been provided with proper ventilation.
- viii. Hazardous Waste Management & Storage has improved, with no oil spillage and proper delineation of hazardous waste drums.

#### Old Campsite

- i. The mission noted that there was excavated earth lying at designated points at the old campsite. The mission was informed that the excavated earth had been collected from nearby village pond for borrow area rehabilitation, in consultation with locals/villagers. The mission emphasized that formal documentation/agreement must be in place for procuring the same and it has to be shared in the MPRs with MC & PRBDB.
- ii. General housekeeping and cleanliness was found to be satisfactory at the camp site.
- iii. Electrical Safety has been improved with danger signs displayed at some of the places.
- iv. There is one borrow area adjacent to the old campsite which needs to be closed out properly.
- v. The mission was informed that rehabilitation activities have been initiated by Contractor at Old Camp Site. The mission emphasized that Rehabilitation Plan has to be shared with MC & PRBDB and approved, prior to any rehabilitation activities at the site.
- vi. Hot Mix Plant at this campsite is not in operation, with new hot mix plant with higher capacity in operation at the new camp site.

**Statutory Clearances on OPRC Works:** Requisite statutory clearances including PSPCB consents for operation of HMP & WMM and forest clearances are in place.

**Staff Mobilization (Monitoring Consultant and Contractor):** The mission noted that MC has mobilized the new Environment Specialist from July 2016. However, the mobilization plan for MC Environment Specialist is yet to be finalized. Further, the mission was informed that inputs/site visits by MC Environment Specialist have not been regular to site, with negligible inputs in the Progress Reports submitted by MC. The Contractor has also mobilized 2 new staff for Environment Management & Safeguard from July 2016.

**Additional Roads:** The mission visited additional roads for, for which works have been carried out for resurfacing / rehabilitation, within the existing width of the road. Further, no tree cutting has been carried out for the additional roads. The mission was informed that Environment Assessment and Management Plans have been disclosed on PRBDB website.

**Dehlon Bypass:** The mission was informed that the project has made significant progress in acquisition of private land for Dehlon bypass, however there has been one formal complaint made with regards to compensation, the details of which have been covered in social safeguards section. The revised EA document had been shared with the World Bank and the mission pointed out that the revised EA & EMP is required to be formally disclosed by PRBDB.

**RoB:** The mission visited RoB site. The mission pointed out that statutory compliances w.r.t Environment need to be submitted by Contractor to PRBDB and status of same is to be included in QPR. The mission was informed that EA/EMP for RoB has been formally disclosed.