

## INDIA: GEF-World Bank-UNDP: Sustainable Urban Transport Program (SUTP)

### Sixth Implementation Support Mission (June 8-18, 2012)

#### Aide Memoire

#### I. Introduction

1. A World Bank mission<sup>1</sup> met with the Project Management Unit (PMU) within the MoUD and Project Management Consultants (PMC) to review the overall progress of the project. The Mission visited Pimpri-Chinchwad, Naya Raipur, Indore, and Hubli-Dharwad and met with Mysore project officials in Delhi. During the mission meetings, the mission had an opportunity to interact with the city Project Implementing Units (PIU), various consultants and NGO's assisting the PIUs with project preparation and implementation. A study tour to the best practice Ahmedabad BRT was organized for the SUTP cities and a Workshop on City Bus Modernization held as part of the City-to-City-Peering Program on 15/16 June 2012. The mission would like to express its appreciation for the hospitality extended, the useful discussions arranged and for the excellent arrangements made for the field visits. The main objective of this Mission was to review overall implementation progress and effectiveness of implementation arrangements including:

- Review the progress on the Capacity Building Component
- **Pimpri-Chinchwad:** Review overall project progress especially in regard to (i) Safeguards (ii) Construction Progress and (iii) BRT Implementation Plan
- **Naya Raipur:** Review project progress particularly in regard to (i) DPR and Detailed Design for BRT Infrastructure, (ii) NMT Designs, and (iii) Transit oriented Development Study and other TA's
- **Indore:** Review progress in regard to (i) NURM counterpart Funding, (ii) Bid Documents, (iii) Project Implementation Schedule (iv) M&E and TA's
- **Mysore** – Project update on ITS Installation & status of M&E components
- **Hubli-Dharwad** - Review progress especially in regard to (i) Detailed Designs and Strip maps (ii) RAP and EIA/EMP, (iii) Procurement Plan, (vi) Financial Management and (vii) Formation of SPV
- Review outstanding FM and Procurement matters.
- City to City Peering Program: Ahmadabad BRT Study Tour and Workshop on City Bus Modernisation

2. The mission shared the key findings with the National Project Manager, Mr. I.C. Sharma and the Project Management Consultants in a wrap meeting on July 4, 2012. The mission also debriefed DEA on July 5, 2012. The summary of Mission findings includes the following:

- Component IB progressing slowly, need for faster pace.
- DEA restructuring request awaited for cancellation of funds assigned to Pune Project and reallocation to Hubli-Dharwad.

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<sup>1</sup>The mission consisted of Nupur Gupta (Task Leader), O.P. Agarwal (Urban Transport Specialist), I.U.B. Reddy (Social Specialist), Gaurav Joshi (Environment Specialist), Debabrata Chakraborti (Procurement Specialist), Neha Dhoundiyal (Financial Management Analyst), Venkata Rao Bayana (Social Dev. Specialist – Consultant), Sam Zimmerman (Urban Transport Specialist – Consultant), Gerhard Menckhoff (Public Transport Specialist – Consultant) and Carylann Lobo (Junior Professional Associate).

- Social safeguard issues i.e. finalisation of supplementary RAP, land acquisition, implementation of microplans, and actions identified in the jointly agreed BRT implementation schedule require priority attention in Pimpri.
- Need for maintaining progress in Naya Raipur to initiate procurement for BRT infrastructure procurement and finalise DPR for NMT infrastructure.
- Issue of counterpart funds in Indore unresolved and holding up project execution.
- Mysore ITS full implementation in progress and baseline data collection for project monitoring and evaluation yet to be completed.
- Hubli-Dharwad project preparation on track, procurement of infrastructure and consultancy to be initiated.
- Implementation progress rating may be downgraded to Moderately Unsatisfactory if long pending issues relating to project restructuring and NURM counterpart share not resolved by August 2012.

## II. Key Project Data

Key Project Data		Current Ratings and Flags		
Board Date	Dec 08, 2009		<i>Previous</i>	<i>Current</i>
Effectiveness Date	May 5, 2010	Development Objectives	<b>S</b>	<b>S</b>
Closing Date	November 30, 2014	Implementation Progress	<b>MS</b>	<b>MS</b>
GEF Grant	US\$ 20.33 mn	Project Management	MS	MS
IBRD	US\$ 105.23 mn	Safeguards	MU	U
		Procurement	MS	MS
		Financial Management	MS	MS
Disbursed Amount GEF	US\$ 2.98 mn	Problem Flags	One	One
IBRD	US\$ 16.38 mn			

**HS**=Highly Satisfactory; **S**=Satisfactory; **MS**=Moderately Satisfactory; **MU**=Moderately Unsatisfactory; **U**=Unsatisfactory; **HU**=Highly Unsatisfactory; **NA**=Not Applicable; **NR**=Not Rated

## III. Key Agreed Actions

3. The following actions have been discussed and agreed:

Actions to be Completed	By when	By whom	Status
Submit Proposal for SUTP Restructuring – cancellation of Pune funds and reallocation to Hubli-Dharwad	July 15	MoUD/ GoK/ DEA	
Organise Procurement Workshop	August 21	PMU	
Copy of State Budget provisioning PIU share for FY12-13	July 15	PMU/ SUTP Cities	
Submission of Internal Audit Report for Qtr ending March 2012 & Minutes of Audit Committee	July 15	PMU	
Copy of Letter submitting annual Fin Stmts by PIUs to the Auditors	July 15	PMU/ SUTP Cities	
Duly filled FM/ Procurement Questionnaire for Hubli-Dharwad	July 31	PMU/ Hubli-Dharwad	
Expedite procurement of Component 1B activities:			
- Submit TER for PC1B 1	August 21	PMU	
- Submit TER for PC1B 2 on	August 9		
- Submit TER for PC1B 3	August 15		
- Draft contract for Research Facility	July 15, 2012		

<b>Actions to be Completed</b>	<b>By when</b>	<b>By whom</b>	<b>Status</b>
- Submit TER for GHG emissions - Submit TOR for GEF5 PMC/ Publish EoI - Publish EOI for PC1B 7 & 8/ Submit Shortlist & draft RFP	August 31 June 19 / July 31 June 30/ Aug 21	PMU PMC PMU	Done/  Done/
Submit revised Procurement Plan – Comp IB	July 31	PMU	
Submit status update on key agreed actions	July 10/ Aug 7 / Sep 7	PMU	Done/
Strengthen PMC Resourcing	July 31	PMU/PMC	
Implementation Schedule for BRT Corr 1 / Corr 2-4 Proposed strategy for Empire Est Intersection Contractor M&E Draft initialled contract TER for P&O TER for BRT Access/ Parking Policy ITS Consultant to be on board Corr 3&4 Service Plan Consultant on board Architect on board for Stn Designs BRT Service Plan (Including Express Service and Terminals) finalised Payment of R&R assistance to PAPs Houses to be allotted to rest of the PAPs Supplementary RAP/ Implementation All PAPs living in Transit Camps to be moved into housing Strengthen PIU	July 15 / Jul 31  July 31  July 31 Sep 15 Aug 31 Aug 31  July 31 June 30  July 31 August 16 December 31 July 15/ Sept 30 October/March end July 31	Pimpri- Chinchwad	Proposals received
Bidding Documents for depot, pick-up points and shelters Revised schematics for depot, pick-up points and shelters TOD Study Recommendations NMT – Alternate Design Options & Costing Final NMT DPR NMT Detailed Designs + BOQ + Draft Bid Documents EIA / SIA/RAP M&E Draft Contract PMC for ITS TER Construction Supervision Consultancy (CSC)-RFP issue Regional Mobility Plan TER Strengthen PIU	July 15  June 18  August 16 June 30  July 31 September 1  June 30 June 30 July 31 August 7  August 31 July 31	Naya Raipur	Done  Done  Delayed Delayed
Resolve counterpart funding issue Resolve PIS/ AVLS issue Submit draft bid documents • Package 1/Package 2 Finalise arrangements for remaining M&E surveys & submit draft report Submit TER for Accessibility Plan Draft initialled contracts for Promotions &	Aug 31 July 31 July 15 / July 31  Jun 30  Aug 31 Aug 15	Indore	Delayed

<b>Actions to be Completed</b>	<b>By when</b>	<b>By whom</b>	<b>Status</b>
Outreach Ensure additional staff for AICTSL - Transport Planner - ITS	Sept 30 Aug 1		
Launch of ITS project All surveys for baseline to be conducted before the launch M&E Draft Report (User Satisfaction) Baseline report with all surveys Comprehensive Services and Operations Analysis	Sep 30 July 15 July 31 August 31 Sep 30	Mysore	
Submit DPR Final Submit EIA – EMP / RAP Procurement & Implementation Plan TORs for PMC, M&E and Communications Outreach Draft Bidding Documents – Ph 1 Adv for SPV Staff EoI for Consultancies Draft Agreements with NWKRTC	June 30 June 30 June 30 June 30 July 31 July 15 August 1 Sept 15	Hubli- Dharwad	Submitted - PMU Done Done 2/3 draft ToRs received

#### **IV. Project Development Objectives**

4. The project's development objective (PDO) is to promote environmentally sustainable urban transport in India and to improve the usage of environment-friendly transport modes through demonstration projects in selected cities. The Project aims to achieve this objective by supporting the implementation of India National Urban Transport Policy (NUTP), particularly those aspects of the policy that emphasize, (i) priority to the use of public transport; (ii) priority to non-motorized transport; and (iii) capacity building for developing and implementing sustainable transport systems (at both national and local levels). The project is under implementation and progressing slower than expected, however, given the quality of designs under preparation and implementation of sustainable urban transport projects in the project cities, intent and progress of cities in undertaking critical actions required for ensuring sustainability, and movement on the capacity building aspects the achievement of PDO is deemed satisfactory.

#### **V. Current Implementation Progress**

5. **Overall Status:** The Mission rates the overall project progress as *Moderately Satisfactory*.

6. The first component on capacity building component continues to progress slowly. Procurement is underway for 7 of the 9 activities identified under Component 1B.

7. In regard to Component 2 on the City Demonstration Projects, while Pimpri-Chinchwad and Mysore are progressing with project implementation, there are delays in completing land acquisition and R&R in Pimpri, completing project restructuring and bringing on board Hubli-Dharwad, and resolving counterpart funding issues at Indore. The procurement of BRT infrastructure and finalization of NMT DPR now needs to be expedited in Naya Raipur.

8. The implementation progress rating is proposed to be downgraded to ‘*Moderately Unsatisfactory*’ if the key pending issues of Project Restructuring and Indore counterpart funding issue are not concluded by August 2012.

### Component 1B

Implementation Progress: **Moderately Satisfactory**

9. The mission reviewed the progress on the capacity building component and the updated status is tabulated below:

#### Status of Activities under Component 1B

Sl No.	Activity	Tentative Amount (Rs)	Status – to be updated
1	Development of a structure and an operations manual for UMTA; Business Plan for Urban Transport Fund	200,00,000	Submission of TER by August 21.
2	Development of a standard architecture and plan for ITS and Traffic Management Center	200,00,000	Submission of TER by August 9.
3	Development of a model NMT action plan, bike sharing plan and TOD Guidelines	100,00,000	Submission of TER by August 15
4	Development of a Research Program	30,00,000 + 570,00,000	Draft Contract with CEPT to be shared by July 15
5	GHG Emissions reduction assessment	100,00,000	Issue of RFP by June 30 and submission of TER by Aug 31
6	Leaders Program	550,00,000	Course modules finalized and onsite training scheduled for July 29 to Aug 4 with CEPT. Participation of minimum 40 candidates is expected
7	Impact Evaluation Study for the Bus Procurement under JnNURM	-	EOI published
8	Model Contract Agreements with Private Bus Operators & Guidelines for City Bus Services	-	EOI published
9	Preparation of GEF5 Project	-	EOI & ToR reviewed; EoI to be published
10	National Campaign on Sustainable Urban Transport	-	ToR under preparation
	Balance	18,50,00,000	
	TOTAL	36,00,00,000	

10. Apart from the above agreed items, the new activities under sub-component 1B that were discussed were the following:

- Traffic & Transportation Study for India – This is a comprehensive study reviewing the urban transportation patterns in India. Two studies have already been conducted, one in 1994 and the

other in 2005 and a review is now due given the rapid changes being observed especially following the NURM program of GoI.

- Development of Guidelines on Parking Policies & Masterplans – Development of Parking Policy is one of the reforms identified under NURM funding. This is an important area which needs to be taken cognizance of in order to ensure sustainability of urban transport projects. While several cities have developed policies, their implementation continues to be a challenge and developing guidance documents on the preparation of Parking Masterplans would be helpful to Indian cities.
- Development of a city level urban transport database – this was felt useful as a first step towards a national data base as cities will have to be the building blocks for any national data base. A city level database is therefore an essential first step. Once a city level data base is functional and tested, up-scaling and collating to a national database is much easier.
- Accessibility assessment from transit stations in major cities – the objective was to assess how many jobs could be accessed within a 10 – 15 – 20 minute walking distances from major transit stations. This could be done for a selection of major transit stations in some of the larger cities.
- Citizens report card – User feedback and responsiveness in urban transport planning is a *sin qua non* for its successful implementation. This would involve a citizens satisfaction survey covering both users of public transport and also non-users. It would attempt to capture the non-users' willingness to shift.

11. MoUD proposes to initiate these once the financial bids for the first three activities are in place. The Mission noted with concern the continuing delays in procurement of Component IB activities owing to the need for seeking approval from MoUD at every stage of procurement. The Mission again urged the PMU to review the matter so a faster pace could be possible and study outputs could be concluded and available ahead of the project close. In particular, the Mission advised PMU to expedite the procurement of the GHG Emissions study and the Study on a Research facility at MoUD as outputs from both were critical for next stage interventions.

12. The *Leaders Program in Urban Transport Planning*, first launched in Singapore, and to which 13 government officials had been sponsored by MoUD, is now scheduled to be launched in India, jointly through CEPT and the World Bank. This program aims to develop leadership capability in holistic and comprehensive urban transport planning. It is not intended as a technical program but as one that enables participants to understand urban transport in all its dimensions and thereby occupy leadership positions that require decision making on larger urban transport issues. Given its objective, the target group comprises mid-career practitioners. It has therefore been designed in a manner to suit the learning preferences of mid-career practitioners.

13. The program comprises four different phases covering:

1. A self study phase in which participants review course material at their place of work,
2. A face to face event that will be conducted in Ahmedabad (July 29 - August 4)
3. A project phase where we would arrange mentoring support, and
4. An international exposure visit to best practices in Singapore and Seoul

14. The Program has successfully been launched in Singapore and France. The first phase involving self study has commenced and the second module to be delivered on site in Ahmedabad will take place July 29 to August 4, 2012. MoUD proposes to sponsor about 40 officials to the program.

## **Component 2: City Demonstration Projects**

Implementation Progress: **Moderately Satisfactory**

<b>Project Rating: Implementation Progress</b>	
Pimpri	MS
Naya Raipur	MS
Pune	MU
Mysore	S
Indore	MU
<b>Overall Project</b>	<b>MS</b>

(i) *Pimpri-Chinchwad*: The city has awarded both the major works contracts and implementation is ongoing. The first contract for the Nashik-Phata Flyover which was awarded last year has achieved a 70% financial progress. The contractor for the second major grade separator at Empire Estate along the Kalewadi to Dehu-Alandi Road BRT Corridor has been moving much more slowly and has made a progress of only 15% so far. Roughly 24% of the road stretch along the two corridors and 19% along the Bank funded packages is yet to be handed over and this needs to be expedited to ensure timely completion of the Project. The TA activity procurement under the GEF grant is progressing slowly.

(ii) *Naya Raipur*: The DPR is broadly in place except for the financial and economic analysis. The detailed designs for terminals/ pick up points, depot and bus shelters are now in place and bidding documents are to be prepared. The concept designs for NMT require relook and should be finalized quickly. Meanwhile, the procurement of TA activities i.e. Transit-oriented-Development study, M&E is mostly concluded and that for Regional Mobility Plan and ITS PMC, and supervision consultant are ongoing.

(iii) *Pune*: The Steering Committee in its meeting of March 9, 2011, has taken the decision to cancel the funds to Pune and close its participation in SUTP, in view of its continuing non performance on the project. Per the decision in the same meeting Hubli-Dharwad shall replace Pune in the Project.

(iv) *Mysore*: The ITS vendor and Project Management Consultants shared with the mission their current progress and the types of challenges they had encountered and resolved which had resulted in some delay in Project Launch. The implementation of the ITS project is expected to be concluded in the next quarter. The Monitoring and Evaluation Consultants are now on board and procurement of the Comprehensive Operations Plan for Mysore is underway.

(v) *Indore*: While the Project Management Consultants for the ITS component are assisting AICTSL in the design and contracting strategy for ITS components and the implementation of the BRT appears to be progressing, unless the critical issue of NURM funding for the project is resolved expeditiously this would affect implementation progress. The implementation progress for the project has accordingly been rated 'Moderately Unsatisfactory'.

Details of the discussions with each of these cities are provided in Annex 2-6.

## **VI. Key Implementation Issues, Risks and Priority Actions**

15. The key issues that need careful attention and close monitoring are:

- *Project Restructuring & Cancellation of Pune Project*. The Steering Committee for the Project has been proactive in taking the decision to cancel the Pune Project in the absence of any progress since negotiations and reallocate funds to the new city Hubli-Dharwad for their BRT project in March 2011. A formal request to this effect is awaited from DEA to initiate the

restructuring. However, the restructuring has been pending since last year and must now be expedited for maintaining a healthy project rating.

- *Delays in LA R&R in Pimpri-Chinchwad.* The land acquisition and resettlement in this project is challenging in view of complex situations such as involvement of Defense and MIDC lands, non availability of ownership records, and construction of shops and houses on private lands reserved for roads in the Development Plan. As a result of these complexities, the land acquisition is progressing slower than anticipated and impacting project implementation. So far 24% of road length along Nashik Phata-Wakad road and Kalewadi Phata-Dehu Alandi road (18.08 km) and 19% along the Bank funded packages (2.5 km) has yet to be handed over and is impacting progress of contracts awarded on these corridors.

It has been noticed that PCMC has displaced shopkeepers under the Nashikphata flyover without adequate notice and assistance following a court order. This has occurred even while the Supplementary RAP for the Nashik Phata Flyover has been pending. PCMC has agreed to take immediate remedial action and finalise the assistance for the affected shopkeepers and landowners. Owing to the seriousness of the non-compliance with safeguard policies the safeguards rating for Pimpri is downgraded to ‘**Unsatisfactory**’. PCMC shall submit the draft supplementary RAP by July 15 and complete substantial implementation by end of September 30. Once this is satisfactorily concluded the rating maybe upgraded.

- *Inadequacy of Counterpart Funds in Indore.* The mission is concerned to note that the issue of NURM counterpart funds for Indore BRT ITS project was still not resolved. With 50% of the ITS component funds expected from MoUD this has serious implications for the Project. The mission reviewed the implementation schedule for the BRT and finds that the ITS component has become a bottleneck to the launch of the BRT in Indore. The Mission urges priority attention to this long pending issue. Meanwhile, the implementation progress for Indore is being downgraded to Moderately Unsatisfactory.
- *Launching Procurement of BRT Lite infrastructure and Finalisation of Designs for Naya Raipur BRT Lite Pick Up Point at the Raipur Railway Station.* Since most of the travel flows will be between Raipur and Naya Raipur in the initial stages, two BRT Lite pick up points (terminals) have been identified at central locations in Raipur, one at the present Central Secretariat and the other at the Railway Station, under the Project. While the location at Central Secretariat has been approved by the State Government for use by the Naya Raipur BRT Lite, discussions are ongoing with Railways. The pickup point at the Railway station will be a model for intermodal integration, integrating railway traffic, both intercity and suburban, with Raipur city bus services and Naya Raipur BRT Lite. A response from Railways on the proposal is still not forthcoming. The State Government as well as MoUD have been apprised of the situation and the matter requires an early decision. The procurement of the BRT infrastructure cannot be delayed any further and in the absence of clarity on this matter, the Naya Raipur project is likely to be delayed.
- *PIU / PMU Capacity Strengthening.* The capacity of the cities in urban transport planning, safeguards, and procurement continues to be weak though improvements have been observed in the quality of submissions in some cases. The Mission observed that the primary reason for the continuing delays was (i) understaffing in the PIUs, in particular, Pimpri, Indore and Naya Raipur; and (ii) continuing weak support and deficient staffing of PMC within the PMU despite repeated advice to improve resourcing. This matter needs to be addressed immediately.

## VII. Safeguards – Environment and Social Management

<b>Project Rating: Safeguards</b>	Social	Env
Pimpri	U	MS
Naya Raipur	S	S
Pune	-	
Mysore	-	
Indore	-	
<b>Overall Project</b>	<b>U</b>	

16. **Environment Management.** The project performance is currently rated as Moderately Satisfactory as there has been some progress since the last mission. Details are provided in the city specific annexes.

- *Pimpri-Chinchwad.* In Pimpri Chinchwad, there is some improvement in the environmental management aspects at the fly-over contractors’ campsites. However, for the Empire Estate site, potentially serious issues around worker safety, both at the worksite and at labour camps need continued intense attention. It was agreed that the improvements agreed, such as the regular monitoring of use of personal safety equipment, would be carried out and reported as priority. On timely removal of debris from the Pavana river bed to allow monsoon flows, where while some progress has been made for the Nashik-Phata flyover, the site for Empire Estate will need careful handling and attention to vector control since proposed storage area is close to residential properties. The mission noted that PCMC has a plantation program already underway and requested that progress towards achieving the plantation target at the Durga Tekri site be reported through a section of the QPRs. The mission also urged the PCMC to have a designated Environmental officer who could act as a focal point for all such activities.
- *Hubli-Dharwad.* For Hubli Dharwad, the mission reviewed the progress in project preparation and provided detailed comments on the EA documentation shared in advance of the mission. It also subsequently provided additional specific comments on the EMP for the road component which would be shared with the Contractor to be given the responsibility of executing the road widening to accommodate the BRT infrastructure. It was agreed that reports following periodic meetings between the SPV/DULT team and KRDC teams, where environmental management would be discussed, would use the formats included in the EMP. The mission welcomed the SPV Board decision to use tree plantation as one of the signal activities to secure goodwill from local people and suggested the use of recently announced tree parks for such an endeavor. The mission also highlighted the need to have a safeguards specialist in place as soon as possible to ensure that the project preparation and implementation are seamlessly integrated.
- *Naya Raipur.* Revised EIA/EMP is pending from NRDA.

17. **Social Management.** The Mission visited Pimpri-Chinchwad and Hubli Dharwad.

18. *Pimpri-Chinchwad.* The PCMC is encountering serious challenges in the implementation of the BRT due to land acquisition and resettlement impacts. It also involves the transfer of lands from Defence and MIDC which is also becoming very difficult and time consuming. The land acquisition is also behind schedule as this process was started in 2007-08. A number of road stretches are currently not available due to pending land acquisition and court cases. The court cases mostly relate to challenging the proposed

alignments and legal validity of construction of structures on the land reserved for DP purposes. *4.41 Kms out of 18.08 Kms (24%) is yet to be handed over to the contactors due to various encumbrances. In case of the World Bank financed packages , 478 meters out of 2520 meters (19%) is yet be handed over.*

**19. Displacement of shopkeepers without notice and assistance.** The mission followed-up on the issue of displacement of shopkeepers along Kasarwadi Railway Station. About 30 shops impacted due to bridge portion of Nashik-Phata road were demolished on April 20, 2012 The demolitions were carried out without giving adequate notice and offering compensation and assistance to the affected people which is not in compliance with the Environment & Social Management Framework (ESMF) adopted for the Project and World Bank policy provisions on Involuntary Resettlement. In view of this non-compliance situation, the safeguards rating has been downgraded to **“Unsatisfactory”**. This issue was thoroughly discussed during the mission and agreed the following remedial measures to assist the affected shopkeepers and thus bring back the project into safeguards compliance.

- PCMC will provide a lump-sum amount of about INR. 30,000, equivalent to six months wages as one time assistance towards transitional support for losses suffered due to demolition of shops abruptly;
- PCMC will offer compensation for the affected structures, in accordance with the court directive as and when court makes a pronouncement, since the matter on the legal validity of affected structures is being pursued by the landowners in the court;
- PCMC will provide all cash allowances to eligible affected landowners and shopkeepers in line with R&R policy provisions;
- As regards permanent economic rehabilitation, PCMC will offer alternative shops either on cost or rental basis to all affected landowners and shopkeepers in the new proposed shopping complex at Kundan Nagar, if this new proposal is materialized. Until such time the shopkeepers will be offered shops on rental basis in the vacant shops constructed by PCMC; and,
- PCMC will organize a meeting with all affected shopkeepers /land owners and agree on the above proposed measures and record in the agreed minutes of meeting by June 30, 2012. All above cash allowances will be paid and offer for preference of shops at different locations will be completed by July 31, 2012 and alternative shops will allot according to the preferences within a month of receipt of choices.

The safeguard rating will be upgraded once the above remedial measures are implemented satisfactorily.

**20. Outstanding LA and R&R actions:** Some of the outstaying LA and R&R activities completed since last mission in March, 2012 includes: (i) approval of Individual R&R assistance plan (Micro plan) and, (ii) constitution of independent grievance redress committees. As regards pending land acquisition matter, PCMC informed the mission that the process of transfer defence land is in advance stage and expected to be completed by July 15, 2012. PCMC plans to discuss with MIDC on expending the transfer of MIDC land. The mission was also informed that PCMC is in the process of appointing a Special Land acquisition officer to speed up the private land acquisition process. PCMC will also approach the courts for speedy disposal of pending court cases. As regards resettlement of all 144 squatters residing in the transit sites, PCMC assured that all those living in transit housing will be provided an alternative housing.

The details of social safeguards impacts and agreed dated action plan is provided in **Annex 2A**.

**21. Naya Raipur:** The Mission shared comments on the draft RAP. The document will be finalized including the current site at the railway station and submitted for final review by June 30.

22. *Proposed BRT in Hubli-Dharwad.* The magnitude of land acquisition in this proposed BRT is 73 acres including 13 acres of Government land. This will affect about 900 structures including 237 major impacts losing houses/shops or livelihoods. The larger section of affected people are tenant shopkeepers. The mission discussed about the draft RAP for the land acquisition and resettlement impacts, especially on the entitlements for various impact categories. Some of the concerns related to adequate assistance for those affected non titleholders, tenants and reconstruction of affected worship places on the Government lands were discussed. It was agreed that GoK will provide a revised draft RAP shortly incorporating the updates to Task Team’s comments on the latest draft version. The revised draft will be reviewed by the Regional Safeguards Office for consistency with the Bank’s Operational Policy on Involuntary resettlement. The mission clarified that the final RAP after receiving the Bank’s endorsement needs to be approved by the relevant competent authority in the Government, prior to signing of the amended project agreement.

The detailed social safeguards impacts and agreed dated action plan is provided in Annex 6

### VIII. Procurement, Expenditures and Disbursement Plans

23. **Procurement:** The lack of capacity at the implementing agencies calls for hand holding support by the PMC who could be more proactive in its approach . A regular (weekly) discussion by PMC with each PIA would be helpful for getting updates and removing bottlenecks in understanding and conceptual issues by the IAs. Bank has also been insisting on standardization of consultancy procurement documents of SUTP by PMC so that time is not lost reviewing each case of each IA. This would also help in reducing prior review by the Bank and delegation of approval process to PMC. In case of BRT Project of Hubli Dharwad, good capacity at PMC will be crucial for smooth execution as the procurement may involve large number of packages which are to be procured quickly. Mission also advises that PMC should develop a plan for building contract management capacity of the IAs with support from the Bank. The mission reiterated its long pending recommendation to increase the capacity of the procurement support within the PMC.

24. A Procurement Workshop was held on March 6, 2012 which was represented by all the IAs except PCMC. The Workshop was on procurement of consultancy contracts and covered each stage of the procurement cycle. The participants brought out issues faced during the procurement and possible solution to the issues. Given the success of the workshop, it was decided to hold the next workshop in August 2012 on works and good procurement.

<b>Project Rating: Procurement</b>	
Pimpri	MS
Naya Raipur	MS
Pune	-
Mysore	MS
Indore	MS
PMU-MoUD	MS
<b>Overall Project</b>	<b>MS</b>

25. **Financial Management:** Based on the discussions during the mission and review of the financial management systems across the project, the FM rating is pegged as Moderately Satisfactory (MS). While most of the PIA’s are performing well in terms of financial management, issue of counterpart funding

from GoI at Indore is affecting the project implementation. The FM status and agreed actions for the project are summarized in the FM Annex 8.

<b>Project Rating: Financial Management</b>	
Pimpri	MS
Naya Raipur	MS
Pune	-
Mysore	S
Indore	MS
PMU – MoUD	MS
<b>Overall Project</b>	<b>MS</b>

26. The disbursements continue to lag at only 15% in over two years. The disbursement projections shall be revisited and finalized at the time of proposed Project Restructuring.

## **IX. Project Management**

27. *Project Management:* In order to address the delays observed in finalization and processing of various documents and key actions identified, the PMU has been providing an update on a monthly basis (first week of each month) since last year on the status of the key agreed actions and this has been found to be extremely effective in tracking slippages and addressing them early on. Regarding the PMC, PMU was again advised to (i) review the resourcing for the Project, (ii) review and address the issue of availability of the Safeguard Specialists, (iii) and appointment of another Procurement staff on the team. On the matter of delays with regard to Component IB, the mission advised the PMU and MoUD officials to review the situation and arrive at more streamlined arrangements to processing the procurement of the TA activities, which were running behind schedule.

28. *City to City Peering Program.* The Mission discussed with PMU further Peering events to be organized in the year. The SUTP Annual Event successfully organized in November 2011 should again be planned in the November-December 2012 timeframe. The Mission also discussed organizing an International Study Tour for the SUTP cities before December 2012.

29. *Request for change to MoUD's Disbursement Ratio in GEF Agreement.* A request has been received from MoUD/ DEA for a change in the disbursement ratio against Component IB in the GEF Grant Agreement from 92% to 100% for reasons of processing ease. It has been explained that the small fund contribution from MoUD attracts various MoUD processing requirements in addition to Bank requirements leading to delays in procurement etc. It has been proposed by to instead increase their contribution by the same amount to the Project Management Component therefore keeping their total Project contribution the same. The Bank has agreed to address this request along with the other restructuring request expected shortly.

30. *Allocation of Unallocated GEF Grant of \$1.9mn.* The Bank has been in discussion with MoUD on the remaining \$1.9 mn GEF grant which remained unutilized owing to non participation of Jalandhar city. MoUD is keen to demonstrate an NMT project i.e. public bike sharing, and proposals have been solicited in this regard from SUTP states. In case, this does not materialize, the alternative will be reallocation of the funds among existing SUTP cities based on performance and need.

**X. Next Mission for Bank's Implementation support**

31. The next mission will be taken up 20-30 September 2012.

**INDIA: GEF-World Bank-UNDP: Sustainable Urban Transport Program (SUTP)**

**List of Officials Met**

1. Mr. S. K. Lohia, Joint Secretary (UT), MoUD
2. Mr. A. K. Jain, Advisor, SUTP Project Management Unit, MoUD
3. Mr. I. C. Sharma, National Project Manager, SUTP Project Management Unit, MoUD
4. Ms. Rana Amani, Asst Project Manager, SUTP PMU, MoUD
  
5. Mr. Nilaya Mitash, Director, Department of Economic Affairs (DEA), MoF
  
6. Mr. Asheesh Sharma, Commissioner, Pimpri Chinchwad Municipal Corporation
7. Mr. Umate, City Engineer, Pimpri Chinchwad Municipal Corporation
8. Mr. Mahavir Kamble, Joint City Engineer, Pimpri Chinchwad Municipal Corporation
9. Mr. Shrikant Savane, Executive Engineer, Pimpri Chinchwad Municipal Corporation
  
10. Mr. S.S. Bajaj, Chief Executive Officer, NRDA
11. Mr. L.K. Panigrahi, Chief Project Manager, SUTP, NRDA
12. Mr. Salil Srivastava, Chief Engineer, NRDA
  
13. Mr. Gautam Singh, CEO, AICTSL
14. Mr. Rahul Shrotriya, Asst Manager, AICTSL
  
15. Mr. Mallikarjuna, CGM, KSRTC
  
16. Mr. Ramamoorthy, Principle Secretary Transport, Govt. of Karnataka
  
17. Ms. V. Manjula, Commissioner, Directorate of Urban Land Transport, Govt. of Karnataka
18. Mr. Hemraju, Managing Director, North-West KRTC
19. Prof. Shivanand Swamy, CEPT University
20. Abhijit Lokre, Ass. Prof. CEPT University
  
21. Mr. Rajendra Nath, Team Leader, Project Management Consultants, PMU
22. Mr. David Cunliffe, Sr. Transport Specialist, PMC
23. Ms. Surabhi Kureel, Transport Planner, Project Management Consultants, PMU

**INDIA: GEF-World Bank-UNDP: Sustainable Urban Transport Program (SUTP)**

**Pimpri-Chinchwad**

1. A World Bank mission visited Pimpri-Chinchwad Municipal Corporation (PCMC) on June 8-9, 2012 to discuss the implementation of the Pimpri-Chinchwad component of the Sustainable Urban Transport Program (SUTP). It met the Commissioner of PCMC, Dr. Shrikar Pardeshi, his staff and their consultants; also present were staff of ITDP which is assisting PCMC with the BRT Project. On June 8, the mission joined a meeting at the offices of the bus company PMPML, which was also attended by the Commissioners of Pune and PCMC, the Joint Managing Director of PMPML and some of their staff, and also ITDP.

**Proposed BRT Program in Pimpri-Chinchwad:**

2. The following four BRT corridors are being established in the first phase:

- (i) Old NH-4 (Mumbai-Pune road),
- (ii) Aundh-Rawet road,
- (ii) Nashik Phata to Wakad,
- (iv) Kalewadi to Dehu-Alandi road,

3. The first two corridors have been initially sanctioned by JnNURM. Most of the civil works on the old NH-4 have been completed, and construction of the Aundh-Rawet Road is underway. Corridors 3 and 4 were sanctioned subsequently and have been included for financing under the SUTP project.

**World Bank supported Project**

4. Corridors 3 and 4 have a Right-of-Way of 45 meters, most of which is already owned by the PCMC and, with some significant exceptions, is largely free of existing structures. The typical cross section will include a segregated bus way in the middle, and two mixed-traffic lanes (plus a service road, footpath and a bikeway) on either side. Corridors 3 and 4 have a length of 8.0 km and 11.2 km, respectively. Each of them includes a major structure crossing a river, the railway and NH-4.

5. The World Bank loan will concentrate on these structures, while the remainder of the two corridors will be funded from national and local resources. However, both corridors in their entire length are part of the Project and are thus subject to the Bank's monitoring and safeguard rules, whereas procurement rules and financing apply to the structures only.

6. **Flyover and Road Packages:** The mission reviewed the implementation progress of the contracts along alignments of Corridors 3 and 4 and visited the two Bank-funded packages. In the eastern section of Corridor 4, a realignment is being considered for a short stretch to avoid the need of land acquisition. This alternative alignment is proposed along the existing road which will have a narrower RoW of 30m vs the planned 45m, but the mission was assured that would still accommodate a segregated busway for the BRT. The mission advised PCMC to ensure a timely decision on the matter with a view to not delaying the launch of the BRT corridors.

<b>Contract Package on Corridor 3 &amp; 4</b>	<b>Contract Value Rs. Crore</b>	<b>Expenditure to date Rs. Crore</b>	<b>Financial Progress %</b>
3-1 Nashik Phata Grade Separator	98.81	67.00	67.8
3-2	57.11	22	38.5
3-3	28.87	21	72.7
4-1	24.10	19	78.8
4-2	19.88	0.99	5.0
4-3 Empire Estate Grade Separator	99.42	13.5	13.6
4-4	-	-	-
4-5	37.07	17.7	47.7

**7. Corridor 3 Interchange at Nashik Phata:** This Design-Build Lump Sum contract of Indian Rupees 988 million started in July 2010 with the scheduled completion in January 2013. The progress of this contract is satisfactory. The progress has been 68% in 75% of the contract period elapsed. PCMC has not been able to hand over to the Contractor as yet encumbrance-free land for construction of Ramp 2 and parts of Ramp 1, Loop 1 and Service Road. The Contractor informed that it would take about eight months to complete the works after getting those lands. The Contractor could not take up works in some areas because of the presence of HT Cables of the Railways. Railways have started works for relocating those and it is currently anticipated that the Railways may be able to relocate those Cables at safe distance/ height by about December 2012. The Contractor informed that it would take about eight months thereafter to complete the works in those areas, thus completing the whole contract not earlier than around mid-2013 or so. PCMC and the Contractor may coordinate with the Railways and their Contractor for early completion of the Cable relocation works.

**8. Corridor 4 Interchange at Empire Estate:** This Design-Build Lump Sum contract of Indian Rupees 994 million started in April 2011 with the scheduled completion in October 2013. The progress of this contract is unsatisfactory. The progress has been 12% in 46% of the contract period elapsed. The contract works are divided into seven parts. PCMC has not been able to hand over to the Contractor encumbrance-free land in Part 1 (about 200 m at the beginning) as well as in Part 7. However, considering the work sites available with the Contractor, its progress has been very slow. It is understood that there have been substantial delays in surveys and investigation as well as in finalizing detailed designs. The Contractor's mobilization is poor. Number of Transit Mixers and Concrete Pumps are grossly inadequate. The Contractor's procurement of Materials required for continuous satisfactory concrete production is also grossly inadequate. It's understood that the Contractor is not putting the funds required for satisfactory progress of works.

9. The High Tension (HT) Cables of the Railways are causing hindrances in small lengths in Part 2 and in Parts 4 and 7. Although PCMC has paid to the Railways in March 2012 the cost of relaying the HT Cables, Railways have not started the work yet. PCMC and the Contractor need to follow-up with the Railways for expediting these works.

10. The General Arrangement Drawing (GAD), Designs, and complete Casting and Erection Scheme for Part 3 (structure across Railways) are required to be approved from the Railways. It's understood that approval of the GAD is pending with the Railways for more than five months. PCMC may use its good offices with the Railways in getting early approvals from the Railways.

11. Finishing of the concrete works especially of the Piers is not satisfactory. The Contractor needs to improve on the quality of shuttering.

12. The Mission was informed that PCMC had been in touch with the Senior Management of the Contractor recently. Although the Contractor's Management assured to strengthen its mobilization, but no such strengthening has occurred until now.

13. The Contractor presented to the Mission its 'Delay Mapping' showing its entitlement of additional time for the delays beyond its control. The following discussions involving the Supervision Consultant, PCMC and the Contractor brought out that not all of the Contractor's presentation may qualify as its entitlement. However, such contractual matters need to be resolved through the Dispute Resolution mechanisms (including mutual settlement) as per contract, and the Contractor should put forward its claims with required supporting documents. In this context, Dispute Adjudication Board (DAB) should be established at the earliest.

14. The Contractor presented that the payment schedules are adverse and that it is getting payments much less as compared to its expenses, and requested for relaxation in the schedules in order to improve its cash flow. However, these schedules were pre-fixed at the time of bidding, and PCMC is following those as per the agreed contract. PCMC shall share with the PMU and the Bank their proposed strategy for improving the performance of the contractor by July 31, 2012.

15. The Mission noted that some anomalies in the design of Parts 4, 5 and 6. Each of the main carriageways in Part 4 is only 5.5 meters wide (minimum recommended by the Indian Roads Congress). In addition, the carriageways in both Part 5 and Part 6 (Ramps) are only 4.15 meter wide. It was explained that these under-designs have been necessitated in order to fit in the structures/roads within the space available between the high rise Empire Estate Buildings on both sides. PCMC is advised to share the final designs for these sections for discussion and review by July 15.

**16. Road Packages.** In regard to the road packages, the mission noted that while there had been progress on most packages, implementation was held up in cases where land acquisition had not been completed or stalled on account of court cases. Package 4 on Corridor 4 has not been awarded so far owing to land acquisition issues with MIDC and the proposal for a realignment. The mission advised PCMC to keep a cut off date for taking the decision regarding realignment after budgeting necessary time for completing road works in their overall implementation schedule.

**17. BRT Stations:** The mission was informed that PCMC proposes to proceed with BRT stations with a width of 4 meters on Corridor 3 and 4. On Corridor 2 they would be 5m wide to cover the median vacated by transmission lines. Finally, on Corridor 1 they would be narrower as there would be two stations on either side, serving only one direction of buses.

18. It has been decided to use similar base designs for both the Pune and Pimpri BRT stations. PMC and PCMC officials met on June 8 to confirm that decision. However, the superstructure design is likely to differ for a distinctive local identity. The previous mission was informed that the contractors for Corridors 3 and 4 stations should be on board by mid-2012; this has been delayed to await conclusions of the June 8 meeting. However, PCMC informed the mission that these stations would be built by December 31, 2013 and in order to ensure reasonable time the contractors would be hired before the conclusion of the Corridor 3 & 4 service plan study. The completion of Corridor 2 works is still subject to resolving the issue of land acquisition in the Cantonment area. On Corridor 1, the BRT stations should be built as a matter of urgency – PCMC advised that an architect would be brought on board for the designs of Corridor 2, 3 and 4 and any improvements to Corridor 1, by June 30, and their construction be completed by November 30, 2012.

19. **BRT ITS:** PCMC and PMPML informed the mission that they had cancelled the previous tender for the supply and installation of ITS equipment. PCMC on the request of PMPML issued a request for proposals to select an ITS consultant to advise on the technical specifications and also assist with bid processing and evaluation. It was agreed that the consultants scope of work could be broadened to include assistance with implementation of ITS as well. The mission reiterated the urgency to accelerate the implementation of the ITS component and recommends that the ITS consultant be contracted no later than August 31. Under the circumstances, BRT operations in PCMC may have to initiate their services on Corridor 1 (planned for early 2013) without ITS equipment.

20. **Studies, other technical assistance (TA) and capacity building:** The project description includes funding for (a) the development of a BRT service plan, (b) a fare structure and fare collection study, (c) assistance to build up proposed BRT cell, (d) training, and (e) other technical assistance to PCMC and PMPML. Item (a) is currently being developed, for both Pimpri-Chinchwad and Pune, with the assistance of ITDP.

21. The procurement of the four studies agreed with PCMC has been initiated. The following timelines were agreed:

- (a) Parking Policy and Master-plan: The RFPs were sent to shortlisted consultants on May 15, 2012. The mission recommends that the Technical Evaluation Report (TER) be sent to PMU and the Bank no later than August 31, 2012.
- (b) BRT Outreach & Promotion Plan: RFPs were sent out in January, but only one proposal has been received. Based on the feedback of consultants and advice from the World Bank PCMC has decided to extend the proposal submission date in order to increase competition. PCMC should reissue the RFP no later than July 31, and the TER should be furnished to PMU and the Bank no later than September 19, 2012.
- (c) BRT Passenger Access Improvement to Public Transport & Master-plan on BRT Corridor: The RFPs were sent to shortlisted consultants on May 15, 2012. The mission recommends that the Technical Evaluation Report (TER) be sent to PMU and the Bank no later than August 31, 2012.
- (d) Monitoring and Evaluation: Following the clearance of the TER PCMC have invited qualified consultants for the financial bid opening. The mission reiterated the need for expediting the procurement for the M&E study as the baseline would need to be in place ahead of the project launch. It recommends that the contract with the selected firm be signed no later than July 31, 2012.

22. **BRT Service Aspects:** Owing to the geographic linkage between Pune and Pimpri-Chinchwad cities and the large number of daily trips between them, their public transport systems needs to be interconnected. PMPML, the bus company servicing the region serves this integrating function. However, with the development of the BRT in both cities it becomes imperative for the two systems to be integrated. The decision to purchase high floor buses with doors on both sides, including stairs on left (curb) side for Pimpri BRT is a good one. This will provide complete flexibility in being able to effectively and efficiently serve a variety of markets in Pimpri as well as serve busway stations in Pune.

23. ITDP presented to PCMC and the mission the basic results of the route restructuring study it had carried out for PMPML to redefine bus services in Pune and Pimpri-Chinchwad, taking account of future BRT corridors planned in both municipalities. It is understood that the results of the study have been agreed by PMPML's Board, which includes both Pune Municipal Corporation and PCMC. Based on the

overall plan, ITDP also prepared a specific service plan for Corridor 1 in Pimpri-Chinchwad, including complementary and feeder routes.

### **BRT Service Plan for Corridor 1**

24. The PCMC Commissioner told the mission of the Government's decision that the segregated busways would be exclusive for BRT routes, i.e. the system would be "closed" and other buses would not be allowed to enter the busway. He also advised that BRT operations along National Highway 4 should get started as soon as possible, if possible by December 2012. Much preparatory work has been carried out, and some BRT stations along NH4 are already under construction. It was agreed that further planning will be required urgently, and physical works built, to achieve that objective within the ambitious time scale mentioned. ITDP agreed to expand on its previous work and submit to PCMC a comprehensive BRT development plan by July 16, 2012, covering the aspects described below.

- ***Confirmation of Express BRT Services Along NH4;*** The proposed BRT services will run in the two one-way roads flanking the high-speed central roadway. Between its two end points which are about 12 km apart, it will have 18 stopping locations on each side, i.e. 36 stations. The preliminary peak demand estimate is for about 5000 passengers per hour per direction in 2012, or 6000 in 2014, (equivalent to 60 or 75 fully loaded 12-meter buses, respectively). This would require an average frequency of a bus every 48 seconds, which exceeds the capacity of a one-lane busway and would lead to severe bunching and a low service quality during peak hours. To overcome this problem, it has been proposed to run express BRT buses along this corridor, in addition to the standard all-stop BRT buses; not only would the express services avoid the bunching risk, but they would also substantially reduce the travel time (8 minutes for express routes vs. 20 minutes for all-stop BRT routes between Nashik Phata and Nigadi) and thereby reduce the number of buses needed. The express buses would run on the central lanes of NH4 and connect to the service roads via existing slip ramps, with combined express / local bus stations at very few locations such as Nashik Phata, Pimpri and the terminus at Nigadi.

While there is now general agreement on the benefits of express services, this concept still needs to be reviewed and agreed with the bus operator, PMPML. ITDP agreed to submit by June 21, 2012 a note on the proposed express bus services, describing their operating characteristics and infrastructure implications such as locations and layouts of BRT express stations, need for passing lanes at some BRT stations, and modifications at slip ramps if required. This report, which would also quantify the expected benefits of express buses, would subsequently be incorporated in the July 16 report, mentioned above.

- ***Complementary Routes:*** It is expected that some complementary bus services would "peel off" from the NH4 busway between the Pune limits and the proposed northern terminal at Nigadi. Some of these routes would leave the BRT corridor at Nashik Phata and continue through mixed traffic until reaching a terminal at Bhosari, where passengers could transfer to feeder buses. The exact alignment of these complementary routes is yet to be confirmed, as well as operational parameters such as frequencies, commercial speeds and other parameters for bus scheduling both in the peak and off-peak. (This aspect would also be covered in the July 16 report).
- ***Feeder Routes:*** From the Nigadi and Bhosari terminals, feeder buses would radiate into the surrounding areas, linked with the BRT trunk-line services of Corridor 1. In addition, there may be feeder routes connecting with other stations of the BRT corridor. The final service plan should indicate the alignment and operating parameters of those feeder routes. It should also make

recommendations on the fare regime between the trunk and feeder services. (This aspect would also be covered in the July 16 report).

- **Transfer Terminals at Nigadi and Bhosari:** Functional designs have been prepared of roadways and platform locations of the transfer terminal proposed at Nigadi, but that sub-project has been on hold, awaiting approval for a higher Floor Area Ratio for the entire complex. However, the mission was informed that a decision was taken to initially build the roadways and platforms on the ground level (needed for efficient BRT operations) and building the upper floors at some later stage. It is also planned to build a terminal at Bhosari. The mission recommends that PCMC prepare tender documents for both terminals as a matter of urgency, and issue construction tenders by August 15. ITDP's July 16 report would outline the operational requirements of the two terminals.
- **BRT Stations Along NH4.** Corridor 1 will have a total of 36 stations; the construction of 16 has been contracted, and 4 additional ones are part of the Nashik Phata and Empire Estate interchange complexes. It was pointed out that all stations must have been completed to initiate BRT services, as a combination of new stations (on the right side of the roadway) and old stops (on the left side of the roadway) would render a bus service slow, inefficient and accident-prone. The mission thus recommends that PCMC initiate the process of preparing tender documents for the 16 remaining BRT stations as a matter of urgency, and issue construction tenders by August 15. ITDP's July 16 report would cover this aspect and also address the question how BRT services would operate at Nashik Phata and Empire Estate while the interchange construction is still ongoing.
- **Additional Works Required.** Some details of the physical segregation of the BRT busway and the mixed-traffic lanes are yet to be established. The optimal design solution (full segregation) may be complicated by such issues as (a) the expected high number of peak hour buses and the need to avoid bunching and congestion on a segregated busway, (b) the incorporation of BRT express services in the corridor, (c) the allowance required for mixed-traffic slip ramps between the high-speed NH4 highway and the service roads on either side, and (d) the best way to handle the conflict between the BRT bus movements and the high right-turning volumes at about 5 roundabouts and other major intersections along the corridor. ITDP's July 16 report would make recommendations on all aspects of the physical segregation of the busway and other (probably minor) physical works that may be required to implement the BRT along Corridor 1. The mission recommends that tenders for these works be issued by August 31.

25. **BRT Service Plan for Corridor 3 & 4:** The current draft of the BRT service plan does not include any bus services for Corridors 3 and 4. As these are new road connections, there are no existing bus routes that could be restructured, and thus transport demand data (including origins and destination) are needed. The draft ToR for this was shared with the previous mission for comment. Taking account of the comments received from the Project Management Consultants and the World Bank, PCMC invited proposals by publishing an all-India tender notice on June 8. It expects for the consultants to be selected by July 31, 2012.

26. **BRT Fare Collection:** With regard to fare collection/validation, the previous mission had been informed that even for the BRT services in Pimpri-Chinchwad this function would be carried out on-board by conductors, taking account of the long stretches that each BRT line would have to travel in mixed traffic (in Pune). Moreover, PMPML's contract with their e-ticketing vendor runs until 2015. While full on-board fare collection may make sense initially with the BRT pilot line on NH-4, earlier missions already expressed the view that this type of operation would be suboptimal when the BRT services also operating on Corridors 3 and 4 and on Aundh-Ravet road. The mission was informed of the decision taken by PMC, PCMC and PMPML to have off board fare collection on the BRT corridors. This

aspect should accordingly be included within the scope of work of the ITC Consultants proposed to be hired.

27. **BRT Private Operators:** PMPML advised that they had been able to contract private bus operators on a gross cost contract basis for the BRT and city wide bus service for only 100 buses as the price bids received were on the high side. The mission advised PCMC and PMPML to look into the aspect of terminals and depot infrastructure which was not proposed to be provided under the present contract, as that might be the primary reason for the high bids. The mission again reiterated its earlier suggestion for defining operating specifications, which will be different for the desired high-quality BRT services than for regular buses. PMPML agreed to take account of the BRT operating contracts used in Ahmedabad, which had been provided by ITDP, and review how best to ensure higher performance orientation on the BRT and also specialization in BRT operations among drivers.

28. **BRT Cell to be Set Up in PMPML:** The operation of a BRT implies a continuous control of bus schedules and a generally closer supervision of service quality than is common with conventional bus services. It was confirmed that a BRT Cell should be established within PMPML to perform these tasks, as had been discussed during previous missions. ITDP agreed to prepare a brief report by July 31, 2012, outlining the functions and composition of that BRT Cell.

29. **BRT Implementation Schedule:** Previous missions had extensive discussions with PCMC and PMPML on an overall implementation schedule which would identify the activities leading up to the launch of BRT services in the various corridors of Pimpri-Chinchwad. While the construction of road infrastructure is ongoing and BRT stations and transfer terminals will be built in 2012/2013, there are many other elements that need to be considered, such as: (a) additional buses will be delivered, (b) private bus operators will be contracted and its drivers trained in docking and other aspects of BRT operation, (c) a public information strategy developed, and (d) hopefully without much undue delay, ITS equipment will be procured, installed and tested. The BRT operations themselves require (e) agreement on a service plan which will be finalized after a study that is yet to be contracted (see above). Major risks in completing road infrastructure are possible delays in land acquisition. The mission reiterates its previous recommendation that PCMC complete a comprehensive BRT Implementation Schedule, covering the above aspects and any other activities that may be relevant in consultation with PMPML; it recommends that the implementation schedule for Corridor 1 be sent to PMU and the World Bank, for their information, by July 15, 2012 and the draft plans for remaining corridors by July 31. ITDP shared a draft plan for PCMC and PCMC may wish to finalise the same.

30. **Drawing on the Experience from Existing BRT Operations:** There are a lot of possible risks and pitfalls when implementing a BRT in any city, considering the many aspects that are innovative in nature. The World Bank had positive experiences in Colombia, when it supported the contracting (by cities about to introduce a BRT service) of planners and operators from cities that already had experience with similar services. The same approach could be helpful to PCMC and PMPML as they are finalizing the infrastructure and preparing operations of their high-standard BRT. The mission therefore suggests a similar approach to PCMC, that they may wish to contract specialists from successful BRT operations elsewhere to share their experience in the final stages of BRT implementation in Pimpri-Chinchwad.

31. **Project Management:** Earlier missions had expressed concern over the long response times of the PIU and delays in many action areas related to the project, including social and environment management. With the designation of Mr. Shrikant Savane as the nodal officer for the Project, this situation has somewhat improved. The mission agreed with PCMC that additional staff/NGO would be hired/ assigned for supporting the PIU in Transport Planning, RAP implementation and Environment management.

## **Environment Management**

32. Bank funded Interchanges. The mission visited the two bank-funded fly-over sites, and one road funded by PCMC through other sources. It reviewed progress in implementation of the EMP measures as agreed in previous missions and provision of safety measures both at construction sites and contractors' camps for the fly-overs. The mission noted that there has been some improvement in the conditions at the campsite for the Empire Estate fly-over for the labourer accommodation. However, several issues still need to be addressed by the contractor and confirmed by PCMC, relating to the safety provisions in the site, availability of clean fuel for cooking, etc. It was also agreed that measures relating to the safety of workers at work-site will be taken up as priority for the site. The contractor for the Empire Estate fly-over informed the mission that stone material is purchased, and not quarried. The mission requested that the PCMC share the permissions from the MPCB for the crushers that the contractor uses, once these are submitted by the contractor. It was agreed that the PCMC will inform the Bank about improvements made by the contractor by 30<sup>th</sup> June 2012 so that the briefing for the wrap-up can confirm current level of project performance on environmental management.

33. The mission noted that the fly-over contractors have begun removing the fill material from the Pawana river to ensure adequate waterway during the coming monsoon. While the Nashik-Phata contractor has already put a systematic plan in place, and now needs to remove only about 550 cu. m. of material which can be easily disposed off, under a down ramp, the Empire Estate contract needs to speed up the removal of material and arrange for its proper storage in the area close to the site. It was agreed that the PCMC will ensure that the material does not become a haven for vectors during the monsoon by using proper isolation and fumigation.

34. Plantation. The mission discussed modalities for tracking progress on plantation proposed under the project given the extensive program that PCMC already has in place. It also visited the Durga Tekri site where about 1900 saplings were planted, against a target of 5000, last year as part of the program of the PCMC. It has been agreed that the PCMC will use patches in this site to plant the compensatory plantation for the trees cut for the project and confirm the extent of survival for the duration of the project. This will begin from the next QPR.

35. The mission reiterated its request to have a designated environmental officer in the PCMC PIU to ensure that the project monitoring and reporting is streamlined.

36. Alignment Change in Corridor 4: The mission reminded PCMC that the stretch of road that may be improved in place of the proposed transfer of land from MIDC, that while the impacts will be limited, due consideration would need to be given to the increase in noise levels at the school located at the edge of the road. It was agreed that the PCMC will review the possibility of providing effective noise shield to the school without hindering road access or sunlight to the school.

### **Key Agreed Actions:**

- Submit Implementation Schedule for BRT Corr 1 / Corr 2-4 by June 30/ July 31
- Submit M&E Draft initialled contract by July 31
- Submit TER for P&O by September 15
- Submit TER for BRT Access/ Parking Policy by August 31
- ITS Consultant to be on board by August 31

- Corr 3&4 Service Plan Consultant on board by July 31
- Proposed strategy for improving the performance of the contractor for Empire Estate Flyover by July 31, 2012
- Architect on board for Stn Designs by June 30
- Finalise BRT Service Plan (Including Express Service and Terminals) by July 31
- Issue construction tenders for Transfer terminals & BRT Stations for Corridor 1 by August 15 and additional works by August 31
- Note on Bus Services to be submitted by ITDP by June 21, 2012 and a comprehensive BRT development plan by July 16, 2012.
- Strengthen PIU by July 31

## Annex 2-A

### Social Management

#### Pimpri-Chinchwad

1. As part of the World Bank assistance, Corridor 3 and 4 of BRT are being supported. The RAP for the land acquisition and resettlement impacts in these two corridors has been prepared and is currently being implemented.

2. **Land acquisition Progress.** The total land acquisition required for these two corridors is 53.61 hectares and out of this, so far only 62% of the land is acquired including those opted for TDR/FSI. Another 10% of area was taken through advance possession from the willing land owners pending the land acquisition process. Thus, 72% of the area is available for construction purposes. The remaining land is not available due to pending land acquisition, transfer of MIDC or military lands and litigations due to court cases. The summary of land acquisition details and progress is presented below.

No	Land acquisition Impacts	Nasikphata-Wakad Road	Kalewadi-Dehu-Alandi Road	Total
	<b>(a) Land acquisition process</b>			
1	<b>Land acquisition ( in Ha)</b>	<b>28.51 ( 100.0)</b>	<b>25.10 ( 100.0)</b>	<b>53.61 ( 100.0)</b>
2	Land acquisition completed through Award ( in Ha)	3.64 ( 12.76)	3.95( 15.74)	7.59 ( 14. 15)
3	Land acquisition completed through option of TDR/FSI ( in Ha)	14.42 ( 50.58%)	11.08 ( 44.15)	25.50 ( 47.57)
4	Land acquisition held up due to court cases ( in Ha)	1.02(3.57%)	0.22 ( 0.87)	1.24 ( 2.31)
5	Pending transfer of Military land ( in Ha)	1.44 ( 5.06%)	-----	1.44 ( 2.69)
6	Area where land owners given consent but LA is yet to be completed	6.98(24.48%)	3.39( 13.50)	10.37 ( 19.34)
7	Area under acquisition process	1.01 ( 3.55)	6.46 (25.73)	7.47(13.93)
	<b>(b) Compensation Payment</b>			
8	No. of land owners as per LA compensation Award	1,412	514	1,657
9	No of land owners served notice for receiving the compensation(Section12-2)	1,412 ( 100.0%)	514	1,657 ( 100.0%)
10	No of land owners received compensation	57 ( 4.03%)	248 (48.24%)	302 ( 18.22%)
11	No of land owners appealed for TDR/FSI so far	134	47	168
12	No. of land owners received TDR/FSI so far	133(99.25%)	47 ( 100.0%)	167 ( 99.40%)

3. **Entitlements to different Impact groups (Micro Plan).** The entitlement to different groups consisting of non-title holder residential, non- title holder commercial and tilt holder (residential and

Commercial) and the vulnerable families list is prepared, approved and disclosed. The cash allowances as per the plan will be paid prior to July 31, 2012. As regards those 257 families eligible for alternative houses, 163 families have given consent so far and their applications are being processed. The details of affected families by impact category is summarized below.

No	Impact category	Nasik Phata-Wakad Road	Kalewadi Phata Dhehu-Aland Road	Total
1	Residential ( TH)	45(6)	169(56)	214(62)
2	Commercial (TH)	15	53	68
3	Residential ( NTH)	11(4)	32 (8)	43(12)
4	Commercial (NTH)	45	27	72
	<b>TOTAL</b>	<b>116 (10)</b>	<b>281(64)</b>	<b>3 97(180)</b>

**Note:** The figures in the parentheses indicate the number of identified vulnerable families for additional support.

**4. Supplementary RAP for Nashik-Phata Bridge Portion.** The Bank advised PCMC to revise the supplementary RAP by incorporating the following measures due to recent demolitions of shops for bridge portion in Nashik-Phata road.

- Remedial measures for all affected people in the form of transitional allowances from the date of eviction (April 16) until they are offered alternative rehabilitation options and ex-gratia for losses suffered in the evictions. It is agreed that an amount equivalent 6 six months minimum wages (INR.30,000) will be proposed to each of the affected family;
- Propose suitable rehabilitation measures for affected land owners and shopkeepers. In this context, PCMC proposes to allot shops or cost or rental basis at the new shopping complex is proposed to be constructed at Kundan Nagar, close to the Nashik Phata Bridge. If this proposal materializes, the shopping complex is expected to be ready for allotment in about 2 years from June, 2012. In the interim, people can opt to receive alternative on rental basis in any of the shopping complex, where vacant shops are available. Alternatively, PCMC will offer all affected shopkeepers/land owners shops in any of the shopping complex where the alternative shops will be offered either on rental or cost basis. PCMC will arrange a visit to all shopping complexes shortly in order to enable the people to make a choice of their preference.
- All eligible R&R assistance (Micro plan) is to be proposed in line with R&R policy provisions to all affected people and offered and described in the RAP.
- As regards compensation for affected structures, PCMC will pay as per the court directives since the matter is being heard by the court.
- Land acquisition process, time table for its completion and payment of compensation or TDR needs to be described adequately (the LA process needs to be completed and compensation paid prior to be handing over of the land to the contractor);
- GRC composition approved recently should be described rather than the old composition;

**5. Encumbrance Removal Plan.** PCMC has submitted an encumbrance removal plan. This plan shows that t 4,468 meters length of road is not available to hand-over to the contractors in both corridor 3 and 4 due to various encumbrances. There is a delay of 18-33 months in handing over of these stretches to the contractors as per contract time schedules and this will have major cost and time implications. The major reasons identified for this delay are delayed land acquisition, court cases and transfer of lands from other Government agencies such as defense and MIDC. In view of the recent evictions of some of affected people without providing assistance, the mission advised PCMC to ensure that all applicable assistance and compensation is paid prior to serving the notices to vacate their affected land and

houses/shops. The details of encumbrance stretches and the stretches that are handed over to the contractors is summarized below.

**Status of Handover of Encumbrances stretches to contractors\***

No	Headings	Nasikphata-Wakad Road	Kalewadi-Dehu-Alandi Road	Total	Remarks
1	Length of road under BRT	7.88 Km	10.20 Kms	18.08 Kms	WB is financing 2.52 Kms
2	Length of road handed over to contractors	6.27 Kms (79.57%)	7.40 Kms (72.55%)	13.67 Kms (75.60%)	
3	Length of road not available for handing over to the contract due to encumbrances	1.61 Kms (20.43%)	2.86 Kms (27.45%)	4.41 Kms (24.40%)	478 meters out of 2520 meters(19%) is not available in WB financed packages

6. **Resettlement and rehabilitation.** So far 165 including 13 non- title holders out of 257 (64%) have come forward to avail the opportunity to apply for the houses under various housing schemes implemented by PCMC. The houses are under construction at various sites and once these are ready for allotment, all these people who have applied will be offered the alternative houses. None of the 140 affected commercial structure owners have come forward to avail the alternative shops offered at various sites on preferential basis.

7. **Consultations with affected land owners/shopkeepers.** The affected land owners are pursuing their concerns in the court regarding legal ownership of their shops situated along Nashik-Phata bridge portion. In the latest court order dated March 26, 2012, the court has directed the land owners to pursue with the State Government for a statutory remedy within two week of the order. The court order also mentioned that PCMC has assured to the court that they will not take any precipitative action against the land owners for a period of 3 weeks.

8. The mission met one land owner, their spokesperson and three tenant shopkeepers, who are affected by recent demolitions along Nashik-Phata bridge portion. The land owner mentioned that in response to court's advice, the land owners have written to Urban Development Department, Government of Maharashtra within the prescribed time frame by the court and a copy was provided to PCMC. However, PCMC did not take into account their petition and went ahead with demolition of shops as soon as three week period is over without giving them advance notice. The land owners are now pursuing this matter in the court. The land owners mentioned that they would like PCMC to consider their demand of constructing shops in the land beyond the area required for ramp portion, so that they can continue to rent out the shops and earn their livelihood. However, this proposal is not feasible for PCMC from the point of view of safety and other technical considerations to undertake any construction in the vacant portion beyond the ramp portion. The land owners also mentioned that they are not keen on any other vacant shops since they may not be locationally suitable and cannot be rented out.

9. The discussions with tenant shopkeepers reveal that almost all suffered losses ranging INR 10,000-20,000 due to lack of time to salvage their goods other materials in the old location at the time of demolitions. They have also mentioned that they were without any alternative shops for more than a month. Some of the shopkeepers whom the mission met have only started their businesses in the nearby rented shop very recently. As regards alternative shops, they may like to look at the various sites and terms and conditions of allotment before making the choices.

**10. Dated Action Plan.** The mission agreed with PCMC, the following dated action plan for implementing the key pending tasks.

**Date Action Plan for Land Action and Resettlement Implementation**

No	Actions	Responsibility	Target Date	Remarks
1	Submit revised Supplementary RAP	PCMC	15-Jul-12	Remedial measures for displaced shopkeepers should be incorporated satisfactorily
2	Complete the process of Transfer for Defense Land	PCMC	15-Jul-12	PCMC will deposit applicable money by June 31, 2012
2	Complete payment of cash allowances as per Micro Plan and Supplementary RAP	PCMC	16-Aug-12	Standing committee approval is pending for Micro plan
3	Allotment of alternative houses to 163 families who have opted alternative houses	PCMC	30-Sep-12	
4	Allotment of alternative houses to remaining 94 families who have opted alternative houses.	PCMC	31-Dec-12	
5	Resettlement of squatter families to new houses	PCMC	31-Oct-12/ 31-Mar-13	First batch of families will resettled buy Oct, 2012

**INDIA: GEF-World Bank-UNDP: Sustainable Urban Transport Program (SUTP)**

**Naya Raipur**

1. A World Bank mission visited Raipur on June 13 - 14, 2012 to discuss with the Naya Raipur Development Authority (NRDA) the implementation of the Naya Raipur component of the Sustainable Urban Transport Program (SUTP). It met the Chief Executive Officer of NRDA, Mr. Shyam Sundar Bajaj, his staff and their consultants; also present were representatives of the PMU, PMC and Embarq which is assisting NRDA with the BRT and urban planning proposals. The Mission also met and briefed Mr. Baijendrakumar, Principle Secretary Housing & Environment, Government of Chhattisgarh.

**Development of Cycle Tracks and Pedestrian Walkways**

2. Under SUTP, NRDA plans to build bikeways and footpaths along main roads and BRT corridors in Naya Raipur as part of the SUTP, within an overall budget of Rs. 37 crores. The consultants presented the progress achieved to-date. Most significantly since the last mission (March 2012), the proposed standard of NMT-ways is now estimated at Rs. 2.4 crores per km, less than half the previous estimate. On this basis, it is now proposed to build NMT-ways along 16 km of main thoroughfares.

3. As agreed in March, consideration of NMT-ways along the expressway between Raipur and Naya Raipur has been deleted, and the 16 km of NMT-ways are now all concentrated in the new town itself. The revised DPR which was submitted in early June recommends that NMT-ways would be built on both sides of selected main streets and consist uniformly of a 3 m wide cycle track, a 1.5 m wide green strip, and a 2.5 m wide footpath. The DPR does not present other combinations that might have been considered, such as placing NMT-ways only on one side of the main street, which (within the overall budget) would result in an NMT network twice as long as currently proposed. Nor does the DPR describe an analysis of alternative design options such as NMT-ways for combined bicycle and pedestrian use (about 4 meter width rather than the currently proposed 7 m width divided into three parallel strips).

4. There was insufficient time during this mission to arrive at a conclusion that would be acceptable to NRDA, their consultants and the Bank. Nevertheless, there was enough discussion, in which the mission's concerns could be explained. These include:

- The NMT DPR will need to be reworked as it is lacking a number of critical analysis details. At the same time highly technical information, taken directly from international resources and referenced, has been included. This should be placed in an Annex.
- It is not clear why a detailed demand study was done and how the results were used to prioritize and/or size the Project's NMT investments. As the previous Mission noted, a detailed demand analysis was really not necessary for either purpose; however, given that it is done, modeling details should be placed in an annex and the results utilized in the alternatives analyses called for below.
- The DPR should contain an evaluation of alternatives, not only of pavement but also geometric design options, and include evaluation criteria such as the extension of the NMT network. In other words, a greater length of NMT-ways of lower width should be weighed against a relatively short length (such as 16 km) of greater width (such as the current 14 m).
- The location and cross section of NMT-ways depends on several factors such as the role of the main road (i.e. high-speed arterial vs. lower speed distributor) and the expected demand for walking and cycling. It is unlikely that the best NMT network would have the same cross section throughout.

- The proposed NMT designs should consider the entire width of the arterial, from building line to building line. In some cases the main roadway has already been constructed, and the buildings will not come up for many years – placing an NMT-way next to the existing roadway would appear quite sensible here. In other cases, where buildings (and service roads) can be expected for the relatively near future, pedestrians would presumably walk near those buildings and not next to the main roadway that might be 20 m away. Also, the correct NMT-way design would be different for arterials that are 40 meters wide from those that are 124 m wide.
- Another variable that should be considered is the possible staging of NMT-ways. For example, a relatively narrow (maybe 4 m) footpath-cum-cycleway could be built in Phase 1 on one side of the main roadway. This could be followed 5 to 10 years later by the addition of a similar NMT-way on the other side of the main roadway. At yet a later stage, the NMT-ways could be doubled in width, thereby permitting a separation of cycleway and footpath.
- Another concern raised by the Bank in recent correspondence is the issue whether the many new roads being built in Naya Raipur have a footpath on one side, or perhaps on both. The mission understands that some roads have a narrow sidewalk which is used to place street light poles (thus perhaps blocking the path for pedestrians who then have to walk on the road).
- An overarching concern is that the limited funds available for NMT-ways should be spent wisely, and be seen as a positive element of Naya Raipur’s development. It may not be sensible to have some high-grade NMT ways (with special illumination) built in a few locations, to serve a moderate flow of cyclists and pedestrians, while at the same time there may be hundreds of km of road without any facilities for pedestrians.
- The following approach maybe adopted in conducting the alternatives analysis:
  - Dimensions defining alternatives should include:
    - Cross-section:
    - Facilities on both sides of street or only one
    - Separate cycle track or combined with walkway
    - Position of cycle track/sidewalk in cross section with reference to pavement edges, buildings and plantings
    - Paving material
    - PCC
    - Flexible pavement
    - Phasing
  - Decision criteria could include:
    - Costs
    - Centerline coverage within the available budget and consistency with development plan phasing
    - Street crossing and other safety concerns
    - Aesthetic and consistency with other design themes and criteria
    - Risk
    - Any resettlement issues
    - Level of service, etc.

The methodology used, results and conclusions should be included in the DPR (as part of the Annex).

5. It had been agreed during the March mission that the consultants’ contract should be amended to incorporate some additional tasks such as providing advice regarding NMT movements and facilities within the Capital Complex, and NMT within a specified residential sector of Naya Raipur. The technical and financial aspects would be agreed between the consultants and NRDA who would then submit the

required No-Objection request to the PMC. In this context, the Bank team commented that bicycle parking at the Capital Complex could be much closer to buildings than currently envisaged, and that it was important to ensure that well-designed curb cuts or ramps be provided for persons with disabilities, and also for bicycles.

6. To sum up, the mission recommends that the consultants should elaborate on their work, with a special emphasis on developing an NMT plan that (a) fits into the estimated budget and (b) provides a reasonable service to the people of the growing city. Also, the consultants' contract should be amended to incorporate some NMT aspects not included in the original Terms of Reference. The mission recommends that a new interim report including alternative designs, strip maps, and material analysis would be submitted by June 30, 2012, taking account of the concerns expressed in this aide-memoire. An updated DPR would then be submitted by July 31, 2012, including designs and other results of the consultancy except the construction drawings and tender documents which would be produced after the DPR has been approved, and by September 1.

### **Bus Rapid Transit (BRT) Lite**

7. Three BRT corridors have been considered:

- Corridor 1: Naipur Railway Station – NH6 – Capitol Complex in Naya Raipur (24.7 km)
- Corridor 2: Kabir Nagar (Raipur) – NH 43 – Capitol Complex in Naya Raipur (37.5 km)
- Corridor 3: In median of the main axis of Naya Raipur, between NH6 and NH43 (17.8 km)

8. It had been agreed in November 2011 that priority will be given to Corridor 1, aiming at a high quality of physical facilities and BRT service frequencies. It was asked that special emphasis be placed on the good functional design and attractive public space development at and around the two major terminals in Raipur: (a) Raipur Railway Station and (b) existing State Secretariat. As an interim, initial measure, Corridor 2 would be served by a conventional bus route linking Raipur and Naya Raipur via Highway 43.

9. NRDA suggested and the Mission concurred that during phase I, an interim, internal Naya Raipur public transit bus service connecting the Capitol Complex and various other occupied sectors should operate in Corridor 3. Naturally, frequencies and stopping patterns would be commensurate with demand. This could either be BRT or local bus. If BRT, BRT buses free during the mid day period that would otherwise be parked in Naya Raipur could be used. If this “early action” internal Naya Raipur BRT service is desired, some BRT station and segregated transitway development would be carried out in Phase 1 per direction from NRDA. Either way, the NRDA noted the need to have public transport service and related facilities at the Northern entrance to Naya Raipur at National Highway 6 and at the southern entrance at National Highway 43. This would facilitate access to Naya Raipur by passengers on intercity bus services plying those two highways to/from, Raipur.

10. **Interim Bus Services:** It is expected that BRT “Lite” service will begin in 2014 upon completion of SUTP-financed facilities, but State Government will be functioning in Naya Raipur very soon, requiring an interim bus service to begin earlier. During the intervening period, Interim Bus Services will be provided between the two cities, along the alignments of both Corridors 1 and 2. NRDA informed the mission that they had to cancel the tender owing to a single high bid. Since the launch of the Capital Complex is deferred until November 2012, NRDA now proposes to retender the service operations. Another option that they plan to explore is contracting the newly acquired NURM buses from Raipur which maynot be using the entire fleet of 100 buses they have now received. NRDA shall finalise its plan by July 31.

11. **BRT Lite between Raipur and Naya Raipur:** The Mission noted that it is important to achieve high-quality public transport connectivity as early as possible lest travelers between Raipur and Naya Raipur and within Naya Raipur establish a pattern of using less sustainable alternative modes (cars, motor cycles, three-wheelers, tempos, and other informal public transport services).

Accordingly, Phase I BRT services should be:

1. Quick
2. Frequent
3. Reliable
4. As direct as possible, with a minimum of transfers

They should create and maintain a high-quality image, among other things by having distinct, well-maintained and clean vehicles, which are branded and easily identified, safe and secure, attractive and easily accessible stations/pick-up points.

12. **Service Plan/Vehicle Integration.** Some uncertainty seems to remain on how vehicles and service plans should be integrated. For vehicles that will be used for BRT Lite services (corridor I), having doors on both sides, right side enabling level boarding from high platform stations and a door on the left side with step enabling boarding from low platform or curb stations provides perfect flexibility. This having been said, it should be noted that maximizing seating and or standing space is imperative for routes which serve the longest trips and go non-stop between high platform BRT stations (Railway station, old secretariat, new capital complex) and do not serve low platform or curb stations. This means that a retractable (or removable) plate covering access stairs on the left side of vehicles should be provided to increase standing space for buses in this application.

13. **Docking.** The DPR uses the term “docking” to refer to the move by BRT vehicles into high platform stations and their positioning within roughly 8 Cm of the platform edge. It should be noted that though mechanical or electronic devices are used to facilitate docking in places like Cleveland and Rouen, respectively, this is not necessary. Drivers in Ahmedabad and Bogota, for example, do commendable jobs of docking BRT vehicles within an acceptable gap of BRT station platform edges without any aids other than pavement markings and driver training.

14. **Position of Transitway in Roadway Medians.** An item which caused some concern for the Mission is the location of median stations in the sections of roadway where the median is significantly wider than is proposed for station platforms. There are a number of options for addressing this issue, ranging from bringing the transitway lanes into single, standard size platforms located on the centerline of the median, a relatively costly proposition because of all the extra pavement, to splitting the median platform stations into two halves, with a small plaza/park (or retail area) between them. The options for dealing with this issue should be analyzed in terms of criteria including cost, safety, ease of fare collection, access, etc.

15. **Station Design.** The station design themes seem to be coming together very nicely. The Mission had two small observations;

- The holding areas between the station pedestrian crossing and the respective intersection should probably not be longer than necessary to accommodate 2 vehicles in addition to the one boarding/alighting passengers. The 3 positions proposed by the architect seem somewhat excessive given the expected service levels.
- The proposed station template incorporates a significant amount of solid concrete wall space; Would a number of strategic “windows,” formed high enough up to avoid safety issues, permit more light and air and reduce costs without letting in too much Monsoon-rain?

**16. Depot Design** The number of proposed bus bays, pit and lift equipped, seems fine; however, if cutting one or even two pits would save construction money without hampering operations, it should be considered.

**17. BRT Terminal at the Railway Station:** The mission was informed that the Railway authorities had not formally reverted on the proposal submitted by NRDA. The Mission expressed concern at the continuing delay in this matter and also raised the matter with the Pr. Secretary, Housing & Environment, GoC. It has been agreed to take up the matter with the Railways immediately. The Mission along with NRDA officials & Arya's team visited the proposed site. The site is close to the platform and large enough to accommodate the proposed bays for at least 3 BRT and 8 city buses. The site also provides for access from the Bus bays to the main street via a small passage which is also proposed to be upgraded as part of the project.

**18.** It was agreed to proceed with the preparation of detailed BoQs and bidding documents providing for the Railway Station along with the Depot, bus stations and terminal at Central Secretariat. This could closer to finalization of tenders be either excluded from the bid documents or retained depending upon the progress in the discussions with Railways.

**19. Traffic Safety Audit:** There are many potential accident hazards, both along NH6 where traffic speeds are relatively high, and in Raipur near the two terminals where pedestrians and general traffic intermingle. The previous mission recommended that an independent traffic safety audit be carried out and Embarq agreed to assist with this activity. This subject was not discussed during the current mission, but remains an important activity to be carried out.

**20. Update of DPR:** The final DPR was shared with the Mission and found to be broadly in order. The few remaining comments on financial and economic analysis and aspects of service plan, docking etc. mentioned earlier in the AM should be incorporated at the earliest.

**21. Detailed Designs for BRT Infrastructure.** Detailed designs were reviewed during the mission and found okay barring minor comments on station design and depot shared in this AM. It was agreed that the BoQs and bidding documents will be prepared and submitted to the PMU and the Bank no later than July 15.

### **Technical Assistance and Capacity Building**

**22. TA on Transit Oriented Development (ToD).** One objective of ToD is to minimize over-all motorized travel and promote transit, pedestrian walkway and bicycle use. Another objective is to improve the over-all quality of life for people living and working in areas adjacent to public transport facilities in terms of convenience (e.g., for working women), noise, local pollution, safety and security. A casual review of the proposed master plan for NR suggests that there is room for improvement to make it more pedestrian, bicycle and public transport friendly. The ToD consultants presented on the international experience and their review of Naya Raipur. Embarq which has also been working on a sector in Naya Raipur also presented their work. It was agreed that the draft review of the development controls and plans and recommendations would be submitted by August 2012. This would then be followed by the study tour in September 2012 followed by the charrete in October 2012, once the NRDA and state officials have had a chance to review international experience.

24. **Regional Mobility Plan.** NRDA is keen to develop a Regional Transportation Plan for the Greater Raipur Area including the urban centres of Raipur, Naya Raipur, Durg and Bhilai. It was agreed that the RFP would be issued to shortlisted consultants by July 15.

25. **Project Management Consultants for ITS.** NRDA plans to appoint consultants for assisting with the design, procurement and implementation of the public transport ITS. The RFP has been issued and it is agreed that the TER would be submitted by July 31, 2012 and draft initialed contract submitted by September 1, 2012.

26. **Monitoring & Evaluation Study.** The procurement would be completed soon and contract signed by July 31.

27. **Project Management Consultants for Depot, Terminals and Shelters.** The ToR has been finalized and EoI published. The shortlist and draft RFP should be submitted by July 31.

28. **Establishment of UMTA:** A critical requirement for such situations is a suitable institution for overseeing the overall transport arrangements in the region. The state plans to create an Urban Mass Transit Agency (UMTA) for the Greater Raipur metropolitan area, including the cities of Raipur, Naya Raipur, Durg and Bhilai all of which are in close proximity with significant intercity trips and work on its detailing has started (under the Australian Trust Fund). An Approach Paper outlining the structure and powers of the Greater Raipur Area UMTA has consulted and finalised. The Mission raised the issue of delays in the constitution of the UMTA and how this is resulting in offline coordination by NRDA in integrating its services with Raipur, coordinating the terminal/ pick up point location within the Railway station and now the required coordination to contract buses from Raipur. The matter was discussed with PS, Housing and Environment, who assured the Mission that a committee could be constituted to initiate the coordination under the Commissioner Raipur as an interim measure.

### **Environment Management.**

29. *BRT Component.* The mission was advised that the EIA/EMP would be submitted by June 30, 2012, now that the design aspects of DPR were finalised. The outstanding issue of the Railway Station could be treated by considering the proposed location of the site.

30. *NMT Component.* The mission noted that the proposals under consideration for the project provided much scope for analyzing the impacts of different materials on environment and also for enhancing safety and pedestrian use of facilities. It highlighted the need to document this in the environmental analysis to be carried out for each sub-component.

### **Social Management.**

31. The submitted draft RAP was reviewed and detailed comments provided to NRDA. It was agreed that the draft final RAP would be submitted to the PMU and Bank by July 15, 2012.

**Key Agreed Actions: To be updated**

- Finalise Bidding Documents for depot, pick-up points and shelters by July 15
- Finalise Revised schematics for depot, pick-up points and shelters by June 18
- Finalise TOD Study Recommendations by August 16
- Submit NMT – Alternate Design Options & Costing by June 30
- Submit Final NMT DPR by July 31
- Submit NMT Detailed Designs + BOQ + Draft Bid Documents by September 30
- Submit EIA/ EMP by June 30
- Submit SIA/RAP by June 30
- Submit M&E Draft Contract by June 30
- Finalise PMC for ITS TER by July 31
- Resolve Construction Supervision Consultancy (CSC)-RFP issue by August 7
- Submit Regional Mobility Plan TER by August 31
- Strengthen PIU by July 31

## Annex 4

### **INDIA: GEF-World Bank-UNDP: Sustainable Urban Transport Program (SUTP)**

#### Indore

1. A World Bank mission met with AICTSL officials on June 12, 2012 in Indore to discuss the project progress in regard to the Indore component of the GEF-Sustainable Urban Transport Program (SUTP). The mission met Mr. Gautam Singh, CEO, AICTSL, AICTSL staff, officials from Indore Municipal Corporation and Indore Development Authority, EMBARQ and ITS Project management consultants IBI Group along with PMU and PMC. The Mission also met with the MD, AICTSL and Municipal Commissioner Indore, Mr. Yogendra Sharma.
2. **ITS Component.** Indore plans to use the GEF-SUTP funds for installing an ITS system on their BRTS. 3 BRT corridors were being built in the first phase covering a length of 36.7 kms. There would be a 2<sup>nd</sup> phase with another 3 corridors. A project management consultant (PMC) for ITS, IBI Group, has been appointed using project funds to develop detailed design, assist with vendor procurement and finally oversee the implementation of the ITS component including Automatic Fare Collection Systems and Traffic Signal Priority.
3. **Status of AB Road BRT Corridor.** The AB Road corridor is 95% complete. The only remaining sections pertain to the service lane and NMT improvements held up on account of the land acquisition relating to 3 religious structures. It is felt by the authorities that the matter will be resolved soon and in any case they will be in a position to launch the BRT even without this being fully in place.
4. Construction of 22 BRT Stations has been contracted out to two contractors for speedy implementation and the mission was informed that 25% of the work has been completed. It is expected that the construction will take upto December 2012 to complete. One suggestion by the mission for the transitway stations where construction has not begun is that the bus stopping positions on either side of station platforms not be precisely opposite each other. Offsetting them would provide even more room for waiting and/or movement by, respectively, boarding and alighting passengers. Also, the bus stopping point on the side of the center platform stations where buses are heading away from the intersection, should be positioned farther from the intersection than the stopping point for buses heading in the direction toward the intersection. This provides extra room to help avoid buses “spilling back” into the intersection when the traffic lights turn red during busy peak periods.
5. Indore has 104 semi-low floor buses running in the city. AICTSL has been sanctioned 125 buses by the Government of India under the JnNURM. About 50 of these buses are for the BRTS and the contract for the same has been awarded. They propose to use high floor, both side door buses for the BRTS corridors. Prototype approval for the additional buses is expected by June 30, 2012 followed by delivery of buses from December 15, 2012, starting with 32 buses. The BRT buses will be air conditioned.
6. AICTSL mentioned that all routes currently overlapping on the BRT corridor are being parceled off so that there is only a single operator on the BRT corridor. The operator is proposed to be contracted on Gross Cost Contract basis and once formal approval is in place from AICTSL Board the contracting can be initiated. New infrastructure for maintenance of the buses is also being created to improve attractiveness for private operators.

7. On ITS a final design is in place. However, further action is constrained as the issue of counterpart NURM funds is still pending resolution. Meanwhile, AICTSL informed the mission that it was keen to include passenger information system (PIS) and automatic vehicle location system (AVLS) as part of the ITS, as their old system had limited functionality. The mission advised AICTSL to carefully review the need for the new system. The mission recommended that the preparation of bid documents should not be stalled and submitted for review of Bank as per agreed timelines.

8. *Project Scheduling.* A comprehensive **implementation plan**, including a “Gant Charted” schedule has been prepared. It is now obvious that ITS systems will become the constraining factor for the BRT project. Procurement of the vendor is expected to take about 4 months and they in turn will require 8-9 months to complete equipment procurement and installation. This will therefore take at least until July-August 2013 to conclude, assuming the procurement for the vendor is launched right away. Whereas, with the second batch of buses being delivered in February 2013, the BRT system could be launched by March 2013.

9. *Cost Estimates and Revised DPR for NURM Sanction.* It appears that only one of the three corridors has confirmed funding support and in advanced stages of implementation. The timelines for the other two corridors are unclear as also the sources of funding. Second, as the NURM funds are fully committed and there has been a delay in the submission of the ITS Project to MoUD there are concerns about its counterpart funding. Third, while the eligibility of Indore is for 50% NURM funding the project cost table erroneously provided for 80% NURM funding resulting in a need for a much higher share of counterpart funding from state and city governments. MoUD has suggested the possibility of allocating unutilized NURM funds from other projects of the Government of Madhya Pradesh or any other state government. In view of the certainty of implementation of only one BRT corridor and constraints on availability of counterpart funding the discussions are focusing on funding for ITS for that one corridor only. Discussions have been ongoing between MoUD and state / city officials on finding a reasonable solution since March 2011 and the mission is concerned about the continuing delays in resolution of the matter. The IP rating for the project is accordingly being downgraded to ‘*Moderately Unsatisfactory*’.

10. **Procurement.** Discussions were also held with AICTSL on the progress of the consultancies and issues were clarified for the ICT procurement.

11. *Informal Sector.* The BRT corridor is currently being serviced by small Tata Magic vehicles. The mission was informed that it had been decided to re-assign these cabs to feeder routes so as not to cannibalise the BRT ridership. The mission cautioned that a more nuanced strategy should be followed by the city administration as the designed capacity of the BRT could cater to only a part of the corridor ridership (roughly 30% of the total corridor ridership) and with the removal of the magic vehicles there might emerge an acute transport shortage resulting in opposition and backlash against the BRT from the users. Therefore, the matter should be properly studied and the strategy for relocation of the tata magic vehicles crafted accordingly.

12. *Financial Analysis.* EMBARQ on behalf of AICTSL had shared its simple financial analysis of the bus operations to ensure break even of its operations in the previous mission. Fare levels for the BRT are proposed to be kept at the current fare levels, and with this there is likely to be some deficit. The mission again recommends that AICTSL also undertake a sensitivity of the financial analysis to various parameters such as fare levels, ridership levels, cost escalations, to have a better understanding of the viability of operations and also have some arrangements in place to take care of possible deficits. 13.

The Mission reiterated its earlier recommendation for completion of the analysis. It was agreed that this would be shared by August 31.

14. *Monitoring & Evaluation.* The Mission was informed that the Baseline Data for the M&E component has been completed by IBI Group. The baseline M & E report shall be submitted to the PMU and the Bank by July 31. AICTSL informed that the surveys for city wide mode shares were being included in IBI Groups scope of work. The Citizen Report Card is proposed to be contracted separately.

15. **Technical Assistance Activities.** The status of the TA activities agreed with the Bank was reviewed. The following actions were agreed and timelines for these are indicated below:

- The BRT station design and traffic intersections design consultancy is complete.
- The Mission cleared the CQS method of selection for Communications and public outreach and it was agreed that the draft initialed contract would be shared by Aug 15, 2012.
- The TER for BRT accessibility plan would be submitted by August 30, 2012.

16. **Implementation Arrangements.** The mission expressed concern over the patchy staffing within AICTSL for the GEF Project as well as for bus operations. The proposal for hiring an ITS staff has been cleared. However, Mission advised AICTSL to identify experienced experts, including Transport Planner, to support AICTSL.

**Key Agreed Actions:**

- Resolve counterpart funding issue by August 31
- Resolve PIS/ AVLS issue by July 31
- Submit draft bid documents for Package 1/Package 2 by July 15/ July 31
- Finalise arrangements for remaining M&E surveys by June 30
- Submit baseline M&E report by July 31
- Submit TER for Accessibility Plan by August 31
- Finalise draft initialled contracts for Promotions & Outreach by August 15
- Ensure additional staff for AICTSL - Transport Planner by September 30 and ITS by August 1
- Submit sensitivity analysis of the financial analysis by August 31, 2012

## Annex 5

### **INDIA: GEF-World Bank-UNDP: Sustainable Urban Transport Program (SUTP)**

#### Mysore

1. A World Bank mission met with the Karnataka State Road Transport Corporation (KSRTC) officials in Delhi on June 18, 2012. The mission met the Chief Engineer, KSRTC, and Project Director, KSRTC, Mr. Mallikaarjuna, and other KSRTC officials and ITS vendor CMC LTd along with the PMU and Project Management Consultants (Mott MacDonald).

#### **GEF-SUTP Funded Project**

2. Project interventions in the city under GEF-SUTP are aimed at addressing the issues of slow movement of public transport due to heterogeneous traffic conditions and increase of private vehicle ownership. Proposed project components include the introduction of Intelligent Transport Systems including Automatic Vehicle Location Information System, Passenger information Systems and a Central Control Centre for improved bus tracking and real time user information.

3. Mysore city accounts for 417 bus fleet and it is acquiring new buses for fleet renewal through JnNURM funding including 30 new Volvo buses. The Project plans to cover 500 buses, 105 bus stops, 6 bus terminals and 45 platforms in Mysore.

4. *ITS Implementation.* The procurement for the ITS system was concluded in June 2011 and the pilot launched in September 2011. The PMC for ITS is on board and working with the ITS vendor, CMC and KSRTC to implement the Project. Good progress is being made. The revised date for completion of project implementation is August 31, 2012.

5. The PMC and Vendor made a presentation to the Mission on the issues faced during implementation. Aspects such as power requirements, control room screen, PIS readability have had to be revisited. Testing has been rigorous and this has taken time as several times the vendor equipment has failed the tests. The mission advised KSRTC to not hurry through these aspects as the quality of the system could be compromised. This is a new system being launched and the learning's from this will inform other cities going forward. It was agreed to hold a presentation on this for the SUTP cities in the next event.

6. In regard to the MIS Reports generated from the system, the Mission advised KSRTC to create a proper hierarchy within their organization structure for ensuring timely action on the findings of the reports and escalation above in cases of delay or no-action, for the system to be truly effective.

7. **TA Activities under the Project.** The M&E Consultants are on board and concluded the user satisfaction survey. However, during the Mission was concerned to note that collection of baseline surveys had not been completed despite repeated reminders. The consultants have been strongly advised to complete baseline surveys before completion of installations latest by July 15, 2012. It was agreed that the User Satisfaction Survey report would be shared by July 31, and the full baseline M&E report no later than August 31.

8. The EoI shortlisting is complete. KSRTC shall submit the TER by Sept 30.

#### **Key Agreed Actions: to be updated**

- Launch of ITS project by September 30
- All surveys for baseline to be conducted before the launch by July 15

- M&E Draft Report (User Satisfaction) by July 31
- Baseline report with all surveys by August 31
- Submit Comprehensive Services and Operations Analysis TER by September 30

## Annex 6

### **New City Proposals – Hubli-Dharwad**

1. A meeting was held on June 11, 2012, 2012 in Hubli – Dharwad to discuss the latest progress in the preparation of a possible Hubli-Dharwad BRT project to be incorporated in SUTP. The meeting was attended by the Commissioner of DULT, K. Manjula; representatives of NWKRTC and KRDCCL; CEPT; the PMU, the PMC and the World Bank.
2. **BRT Proposal:** The Directorate of Urban Land Transport, Government of Karnataka has submitted a proposal for improving bus services in the Hubli and Dharwad twin cities. The proposal includes the implementation of a 22.3 km BRT line, consisting of the 11.8 km long corridor between Hubli and Dharwad and extensions into the central districts of the two cities.
3. Given the geography of Hubli and Dharwad and the importance of their economic, health care, educational and social role in the surrounding region, it is clear that better public transport connections tying the twin cities together are in order. The volume of public transport passengers between the two cities is already enormous and a high capacity mass transit system could cater to the demand more effectively.
4. **Detailed Feasibility Report:** The Detailed Feasibility Report (DFR) for the project addresses design issues satisfactorily and has adequately covered Banks main comments on previous versions. Final comments have been provided on the economic and financial analysis and once addressed, the DPR can be treated as final.

#### **Review of Preliminary Street and BRT Designs:**

5. The mission and a member of the project management Consultants reviewed the preliminary street and BRT designs with CEPT's team leader. The following lists the items that were discussed, most of them addressing issues of pedestrian convenience and safety:
  - It is planned to fence the BRT busway along its entire length. However, it is proposed to insert pedestrian crossings every 200-250 meters to reduce the barrier effect created, a design principle with which this mission fully agrees. These pedestrian crossings will be signalized, but many pedestrians will not have completed the 25-30 m long walk from one side to the other when the traffic signal changes. It was agreed that, at the crossing locations, the strip segregating the busway from the mixed traffic lanes will be at least 1.50 m (better 2 m) wide to provide a refuge area for crossing pedestrians.
  - At mid-block and station crossings, speed bumps have been proposed ahead of the crosswalks to slow bus and mixed traffic. There was general agreement on the speed bumps across mixed-traffic lanes but, after some discussion, it was decided that no such speed bumps should be placed across the busway, as all BRT bus drivers will undergo special training and because the bumps would be particularly unattractive for bus passengers.
  - In the section with a 45 meter wide Right of Way (about 12 km long), the cross section includes a 4 meter wide median between the opposing busways. This permits offset pedestrian crossings (i.e. the standard of the original Pelican Crossings in the UK) which are safer than leading pedestrians straight across. The mission recommends that off-set pedestrian crossings be built at all mid-block locations where the median width permits this design.
  - In the sections where the RoW is only 30-35 m wide, several intersection designs were noted where on one side of the crossing road 4 meters are reserved in the center to provide access to a nearby BRT station, while on the other side the median is only about 1 m wide. It was

agreed (as a general design principle, subject to special requirements at particular intersections) that in these cases there would be a signalized pedestrian crossing only on the side with the 4-m median, and none on the other side.

- At Bairi Devi Koppa station, it is proposed to place a standard at-grade crossing at one side of the BRT station, and a foot overbridge (FOB) on the other. As there will be a traffic signal protecting passengers using the at-grade crossing, the mission feels that the FOB would not be used as planned and recommends replacing it with another signalized at-grade crossing, which is the standard at the other BRT stations of this type.
- There was some discussion about the street layout at the Saraipur Lake station. The mission recommends that a simplified street layout be considered, which would obviate the need for a 3-stage traffic signal. Possible design modifications were also discussed for the junction at Unkal Lake to minimize delays to BRT buses.
- The main road connects with relatively minor side streets that do not cross the central busway reserve. They are unlikely to carry major traffic volumes, even if they are 7 or 10 meters wide. The mission feels that vehicles (especially motorcycles) turning left from the main road will do so with little regard to pedestrians crossing the side street. It therefore recommends that, as a general principle, the crosswalks across the side street be raised, thereby creating the effect of a continuous sidewalks and a raised platform for side-street traffic. This would also obviate the need for crosswalk ramps for persons in wheelchairs.
- There are a number of complex, multiple – legged intersections in the cores of both Hubli and Dharwad on the proposed BRT alignment. These include Jubilee Circle in Dharwad and Chenamma Square in Hubli. Contributing to the complexity of these locations is the presence of significant modal interchange terminals/stations nearby which will have significant BRT and local bus flows as well as pedestrians. Though it is not critical of anything in particular, the Mission believes that an additional look at pedestrian safety and traffic engineering at these locations would be desirable.

6. At this stage, strip maps with preliminary designs are available for the 19 km long section between Hosur Circle and Jubilee Circle. Not yet completed are the designs in the more densely built-up areas of Dharwad and Hubli (about 3.5 km in total length), which are of particular importance as it is here where possible traffic congestion and slow BRT operations are most likely to occur, due to higher travel demand and the irregular street pattern in those areas. In addition to the BRT corridor itself, street improvements will be made around the terminus stations to provide attractive “last-mile” connectivity for BRT passengers walking to/from these stations.

7. The mission looks forward to review the designs of those central districts during its next visit and hopes that at least one full day can be budgeted for that task, including observation of peak hour traffic characteristics in both downtown Hubli and Dharwad.

## 8. **Cost Estimates & Funding.** The Project Cost and Funding Plan was shared and discussed.

No	Particulars	Cost Rs. crores	GOK	World Bank	GEF	Financing %
1	Trunk corridor : (Hosur cross to Hubli CBT & Jubilee circle to Dharwad CBT)	18.45		18.45		100%
2	VUP	13.00	13.00			0%
3	Foot over bridges	24.50		24.50		100%
4	Bus stations	23.45		23.45		100%

5	Terminals & Depots (BRT)	31.42		31.42	100%
6	Interchanges	8.80		8.80	100%
7	BRTS Corridor (Hosur Cross to Jubilee circle)	72.00	72.00		0%
8	Lighting of corridor	8.00	8.00		0%
9	ITS Applications (CBT to CBT)	30.05		30.05	100%
10	ATCS	7.00		7.00	100%
11	Terminals and Depots (Feeder services)	62.28		62.28	100%
12	NMT facilities	9.00		9.00	100%
13	Rolling stock	85.10	85.10		0%
14	Technical assistance			<b>9.98</b>	
15	<b>Total Base Cost</b>	<b>393.05</b>	<b>178.1</b>	<b>214.95</b>	
16	<b>Total with 15% contingencies</b>	<b>452.01</b>	<b>204.82</b>	<b>247.19</b>	
17	<b>Total in USD, Million</b>	<b>(86.10)</b>	<b>(39.23)</b>	<b>(47.08)</b>	<b>(1.9)</b>
18	Land acquisition & Rehabilitation cost	240.00	240.00		
19	<b>Total with Land Acquisition &amp; Rehabilitation cost</b>	<b>692.01</b>	<b>444.82</b>	<b>247.19</b>	<b>9.98</b>

9. The mission reviewed the cost estimates with counterparts and it was agreed that the total loan amount should add upto exactly \$47.3 mn. It was also discussed, that for the technical assistance activities the counterpart share in terms of state share as well and any grants proposed to be accessed from MoUD should also be built in and included in the cost table.

10. **Hubli-Dharwad BRT Co. Ltd.** The mission was informed that the BRT SPV in the name of Hubli-Dharwad BRTS Company Ltd. had been registered under the Companies Act. The staffing of the SPV was discussed in detail. Mission noted that an environment specialist should also be included in the staffing in addition to the social safeguards specialist. The need for bringing on board on a priority key staff such as Managing Director, Finance and Procurement incharge was discussed. The mission was informed that DULT planed to advertise for the positions and would do so no later than July 15. It will bring on board key staff over the next 3-4 months.

11. **HD SPV and Transit Oriented Development, TOD.** One of the advantages of having an SPV responsible for implementing and then overseeing BRT in Hubli Dharwad is the ability of the SPV to focus on more than just daily operations and service provision. In North American and European cities with rapid transit, it is normal for a special unit within the transit authority to be created for the explicit purpose of managing the authority's "surplus" real estate and promoting transit-oriented development around stations and terminals.

12. This promotion can take a number of forms. First, Authority-owned real estate could be developed by the authority alone or under a PPP arrangement with a private development company partner. Second, the unit within the Authority would take the lead in working with city planners and the development community to promote public and non-motorized oriented development around or even on top of stations and terminals as part of the master planning and site planning review processes.

13. With this in mind, it might be desirable for the City to provide its equity to the SPV in the form of land in lieu of cash. The advantage of such an approach is that the land could not only be used as right of way for the construction of infrastructure and facilities, but it could also be used in the ways noted above

to produce an ongoing income stream. This would save money on construction and provide a dedicated source of funds for Authority activities.

14. **Agreements between SPV and NWKRTC.** The mission discussed the formalization of the relationship between the SPV and the bus company i.e. NWKRTC. DULT informed the mission that they propose to have two contracts, (i) operations contract (ii) infrastructure agreement between the two organizations. It was agreed that the draft agreements would be shared with PMU and the Bank by September 2012.

15. **Technical Assistance.** DULT and NWKRTC shared with the Mission the final list of Consultancy Services to be taken up as part of the project:

- i. Consultancy for M&E for BRTS
- ii. Project Management Consultancy for ITS
- iii. Consultancy for Communication & Outreach
- iv. Project Management Consultants for BRTS
- v. Consultancy for Land Use and Transport Integration Plan
- vi. Parking Action Plan for Hubli-Dharwad

16. The mission advised that funds should also be kept aside for capacity building and training of SPV. Draft ToRs have already been shared for some of these activities with DULT. It was agreed that the procurement for (i), (iii) and (iv) would be initiated at the earliest and no later than June 30.

17. **Procurement.** The mission reviewed the procurement plan in detail and provided comments. It was discussed that the packaging of the civil works contracts should be revisited as having too many small contracts would pose a challenge for the new SPV. Concerns were raised regarding the coordination involved in managing multiple sites. However, the mission pointed out, that the contractor was perhaps better equipped in managing the sites than the SPV or the Supervision Consultants to be brought on board. Also, having reasonable sized packages was important for ensuring larger contractors and better quality control.

18. Discussions were held with the Directorate of Urban Land Transport in reference with the requirements of e-procurement procedure of the Bank. The Mission also shared a draft bidding document for NCB works with the Directorate. The Directorate was requested to adapt it for the e Portal of Karnataka State. The documents once modified will be reviewed by the Bank for use in the Hubli – Dharwad BRT Corridor.

19. **Project Implementation Schedule.** The Mission was happy to note that a comprehensive implementation schedule had been prepared for the BRT. Based on the schedule, the project was expected to be completed in three years with the BRT launch proposed in the Oct-Nov 2014, and the final bus terminal works expected to be completed by mid 2015. The contract for road works on the BRT corridor has already been awarded and the work has been initiated. Once the land acquisition on the corridor is completed, the corridor is proposed to be expanded to 8 lanes between the two cities and outside city limits. The mission advised DULT and the consultants to finalise the final designs of packages such as NMT feeder improvements within the city, terminals and depots where space exists etc. and initiate the procurement in order to optimize on the time.

20. **Environment Management.** The mission reviewed the preparation of the proposed BRTS project in Hubli with the DULT officials, and other stakeholders such as the KRDCCL, their consultants,

NWKRTC officials and also briefly visited the proposed trunk corridor site. It discussed its comments on EA documentation and the next steps in project preparation.

21. The mission was informed that the SPV Board had agreed to have a position of Environmental Engineer in its key staff, and it currently envisaged that this person would likely be for the duration of project implementation. The mission welcomed the development and suggested that the decision on whether to continue engagement of such a professional during project operation should be made closer to when implementation is complete. The mission was also informed that the advertisement for filling up this and other posts would be made by 15th July 2012.

22. During the site visit, the mission noted that the contractor has just begun work in a few stretches – this is being executed through KRDCCL and attempt is being made to provide safe passage in the stretches where road is being dug up for rehabilitation. KRDCCL confirmed that the draft EMP has already been shared with the contractor. The mission urged the DULT to keep close watch on the performance of the contractor on road safety and other related aspects as the implementation picks up speed. It has been agreed that the weekly meeting of the contractors, KRDCCL, and the urban design specialist and his team working for DULT will review environmental management. Periodic reports would be prepared for the same in the formats already included in the EMP.

23. Following site visits, several issues that needed to be properly addressed in the EIA and EMPs were highlighted. These include the facilities that are to be constructed for the project, beyond the BRTS corridor, which seem to be missed out in the project baseline and impact prediction. It also reminded the DULT team regarding the need to review the provisions made at the Rayapur lake – to ensure that there is minimal loss of storage volume due to the proposed widening of the embankment. It was agreed that the investigation on the suitability of digging an equivalent volume would be completed and included in the EA documents. The provision of noise barriers using plantation should be thoroughly investigated since land may be too scarce and corresponding density of plantation required may be infeasible in the available area. It may be useful to analyze alternative sound absorbent materials other than concrete to effectively bring down noise levels at sensitive receptors, without using up too much land.

24. The mission welcomed the SPV Board decision to use plantation around Hubli-Dharwad as a signal activity to show-case its commitment and suggested that this can be used to foster a healthy collaboration with Forest Department, who have an Eco-Park on the edge of the existing road. The recent decision to have 2 tree parks in Hublic could also be leveraged to earmark sites for the development of such tree plantation, which would be additional to the mitigation to be undertaken by the Forest Department.

**25. Social Safeguards.** The preparation of RAP for land acquisition and resettlement impacts in the proposed BRT in Hubli-Dharwar is in final stages. The magnitude of land acquisition in the project is 24 hectares of private land, 5.5 hectares of Government land, impacting 814 households and 8 community proprietries. Out of these 237 are considering as major impacts losing their shelter or livelihood or both. Out of these 237 major impacts, 101 (43%) are title holders, 87 are tenants (37%) and the remaining 49 are non-title holders losing either houses or petty shops.

26. The Task Team has provided two rounds of comments on the draft RAP and the outstanding comments related to entitlements were discussed during this mission. The team also visited the proposed road and noticed that the construction related to widening of the existing road between Hubli-Dharwad to 4 lanes is in progress. The following is the summary of discussions and field visit observations.

- a) The entire land acquisition process will be initiated simultaneously using the Karnataka State Highway Act provisions. The land acquisition is proposed to be acquired for 44 meter width. The on-going construction will be limited to 30 meters and once the land acquisition is completed, the widening of additional mixed traffic lanes will be taken up. The road stretches where land acquisition and resettlement is involved in case of 30 meters will be handed-over to the contractor only when the land acquisition process and payment of R&R assistance is completed;
- b) The mission clarified that that the key gaps in the current version of entitlements includes the assistance to some of non- titleholder category PAPs, the quantum of cash assistance in line with KSHIP policy provisions as applicable for 2012-13, adequate livelihood assistance especially to the tenants and relocation of affected worship places on the Government lands. The GoK informed that the minimum compensation under consent award will be 1.5 time of the latest Guideline values;
- c) As regards some of the allowances and partial impacts to structures in case of land owners, GOK plans to include in the consent award since those amounts are very small and not very attractive to land owners. The possibility of giving additional FSI in case of partially affected structures will also be discussed during the consent award process. These need to be adequately reflected in the RAP and clarified to the land owners as part of consent award process;
- d) As regards assistance to the licensed petty shopkeepers, HDMC is considering the GoK's request for the possibility of providing the alternative shops;
- e) The videography to record the affected structures along the road will be completed shortly to document the baseline situation and also deal with any grievances related to impacts to structures.
- f) The consultations on the draft RAP and Entitlements will be held in four locations in Hubli - Dharwar once the Bank's endorsement is received and the outcome of those consultations will be reflected in the final RAP. The revised RAP will be submitted to the Bank by end of June 30, 2012; the draft RAP will also be disclosed in SPV, DULT and other relevant websites ahead of consultations.
- g) The final draft RAP will adequately cover the process of land acquisition using Karnataka Highway act, providing impacts separately for 30 and 44 meters, details of types of lands acquired, revised time table and budget, and the above motioned points.

The GOK will advertise safeguard specialists on SPV Team no later than July 15, 2012

4. **27. Government Processing.** The Mission was informed that the processing is complete and necessary documents along with the certificate of debt sustainability have been sent to DEA. The Bank will initiate formal restructuring upon receipt of request from DEA.

#### **Key Agreed Actions – to be updated**

- Submit Final DPR by June 30 (Delayed)
- Submit EIA – EMP / RAP by June 30 (Submitted)
- Submit Procurement & Implementation Plan by June 30 (submitted)
- Submit TORs for PMC, M&E and Communications Outreach by June 30 (2/3 of draft TORs received)
- Finalise Draft Bidding Documents – Ph 1 by July 31
- Advertise for SPV Staff by July 15

- EoI for Consultancies by August 1
- Draft Agreements with NWKRTC by September 15

## Annex 7

### Financial Management

A desk review of adequacy of existing financial management arrangements was made for the project on June 21 2012. This involved discussions with the FM counterpart at PMU along with review of documents pertaining to financial projections, internal audit reports etc. The Mission concluded that the improvements in FM arrangements are being sustained, however the internal audit arrangements needs to be strengthened.

1. **Budgeting**: It was informed by PMU that all the PIU's have an adequate budgetary provision in their state budget for FY 12-13. The Bank team has requested PMU to provide for a copy of state budget for each PIU by July 15 2012. In case of Indore PIU, the counterpart funding remains to be a matter of concern. The budgetary provision towards the GoI share of JNNURM needs to be provided once the matter is finalized between PIU and MoUD.
2. **Accounting**: The accounts for the project are maintained in TALLY software (except KSRTC where it is maintained in Oracle ). Requisite training has already been provided by PMU to the respective PIU's. It was apprised that there is a need for capacity building and handholding at Naya Raipur. The PMU has in particular made an attempt to facilitate the PIU during IUFR preparation. The progress will be monitored during next mission.
3. **External Audit**: The mission team emphasized the need for early finalization of accounts and its timely submission to auditors for their review and issuance of audit report. The PIU wise progress on submission of accounts to AG for audit a shared with mission is stated below.

S. No.	PIU's	Status of external audit report
1	Mysore	Audit in progress
2	Naya Raipur	Accounts submitted to AG
3	Indore	Accounts submitted to AG
4	PMU – MoUD	Accounts yet to be submitted to AG
5	Pimpri	Accounts yet to be submitted to AG

PMU has been advised to provide Bank a copy of the letter submitting PIU's annual financial statements to the auditors by July 15 2012. It has also been highlighted that in case the audit reports do not adhere to the agreed terms of reference, Bank will be constrained to reject the reports. PMU is requested to circulate the agreed terms of reference to the PIU's to ensure its compliance. It was also apprised that in case, it is anticipated that there will be any delay in submitting the project's audited financial statements to the Bank by September 30 2012, PMU is requested to advise Bank soon as possible so that the matter may be discussed and requisite assistance may be provided, wherever possible.

4. **Internal Audit**: The Bank team was apprised that the internal audit for the quarter ending March 2012 is complete and the reports will be duly shared with the Bank by June 30 2012. The audit committee last convened on June 4 2012 to consider the critical observation raised by auditors in their report for the quarter ending December 2011. Discussions were also held at the extent of coverage and reporting made by auditors wherein mission team expressed their dissatisfaction over the issues raised by auditors. It is observed that although financial transaction wrt IUFR and the related book entries are dealt with in the audit report, there is

a need to express a professional opinion on the internal control mechanism existent for project. This may include the aspects of contract management, requisite staffing, commenting on physical progress vis a vis financial progress, comments on financial projections, adequacy of budgetary estimates etc. The progress on reporting will be monitored in the next audit report for quarter ending June 2012.

**5. Financial Progress:**

The PIU wise financial progress is as under. For detailed calculations kindly refer Annexure 1.

PIA	NRDA	PCMC	KSRTC	AICTSL	MoUD
Financial Progress %	14.71%	22.68%	21.75%	2.40%	0.58%

Disbursement: As on June 22, 2012, against IBRD an amount of USD 16.148 million (15.35 %) (including Designated Advance of USD 7 million) stands disbursed. For GEF, an amount of USD 2.682 million (13.19 %) (including designated advance of USD 2 million) stands disbursed. Given that this is the second year of project, the disbursements are yet to gain momentum and are an area of concern. With a proposal for inducting Hubli, as one of the implementing agency it is expected that the disbursements will improve in the next FY. It is also expected that in Naya Raipur that the pace of disbursements will improve as the procurement of major works will be finalized in FY 12-13.

**6. Reporting:** The submission of IUFRR is timely. The half yearly IUFRR for March 2012 stands disbursed. The next IUFRR submission for the half year ended September 2012 is due by November 15 2012.

**7. Discussions on Hubli-Dharwad:**

As informed the SPV is stands incorporated. It has been requested to furnish the relevant documents pertaining to incorporation at the earliest but no later than June 30 2012 to Bank. The FM assessment of the SPV is pending and can be made after the deputation/appointment of relevant counterpart at the SPV. PMU has been requested to advice Bank on the current status of FM questionnaire shared with the project during our last mission in March 12.

**Project Rating:**

Project rating : Financial Management	
Pimpri	MS
Naya Raipur	MS
Pune	--
Mysore	S
Indore	MS
PMU – MoUD	MS
<b>Overall Project</b>	MS

Action points	By whom	By when
Copy of State budget provisioning PIU's share for FY 12-13	PMU	July 15 2012
Submission of internal audit report for quarter ending Mar 12 and minutes of audit committee.	PMU	June 30 2012
Copy of letter submitting annual financial statements by PIU's to the auditors	PMU	July 15 2012
Duly filed FM questionnaire for Hubli-Dharwad	PMU	July 15 2012

Annexure 1 : Position of total cost, receipts and expenditure till date

Amount in INR/ Million

	Karnataka - Mysore			Chattisgarh - Naya Raipur			Madhya Pradesh - Indore			Maharastra - PimpriChinchwad			MoUD- PMU		
Funding Agency	Total cost	Receipts	Exp. till Mar 12	Total cost	Receipts	Exp. till Mar 12	Total cost	Receipts	Exp. till Mar 12	Total cost	Receipts	Exp. till Mar 12	Total cost	Receipts	Exp. till Mar 12
Gol	124.77	47.04	13.49	344.00	0	1.90	292.80	0	0	1749.00	633.05	525.85	33.60	2.16	0.19
State Govt.	21.50	6.95	18.84	37.00	7.10	-	27.50	22.50	0	852.10	262.75	262.92	-	-	-
PIA	65.87	8.11	0	650.73	264.59	256.36	67.70	5.02	3.40	2273.98	392.57	357.13	0	0	0
IBRD (Loan)	-	-	-	669.00	-	-	-	-	-	2097.70	783.35	454.63	-	-	-
GEF (Grant)	91.20	44.61	33.54	91.20	16.07	5.20	91.20	18.97	8.09	91.20	23.08	1.87	340.80	42.23	1.97
<b>Total</b>	<b>303.34</b>	<b>106.81</b>	<b>65.87</b>	<b>1791.93</b>	<b>287.76</b>	<b>263.46</b>	<b>479.20</b>	<b>46.49</b>	<b>11.49</b>	<b>7063.98</b>	<b>2094.79</b>	<b>1602.40</b>	<b>374.80</b>	<b>44.39</b>	<b>2.16</b>
Financial progress			21.75			14.70%			2.40			22.68%			0.58%

\*Expenditure reported is net of retention money and includes the mobilization advance to contractor.