

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

### Fifth Implementation Support Mission (March 12-23, 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 met with Mysore and Hubli-Dharwad project officials in Bangalore. 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. 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
- **Naya Raipur:** Review Detailed Project Report (DPR) and BRT Service Plan; concept designs for infrastructure facilities; draft DPR and concept designs for NMT project; SIA and EIA; status of TA activities
- **Indore:** Discuss status of NURM funding for ITS project; Project Implementation Schedule; Contracting Strategy; TA activities;
- **Pimpri-Chinchwad:** Review (i) project progress; (ii) ITS for BRT (iii) Technical Assistance, (iv) status of BRT Service Plan (vi) Project Implementation Schedule; (v) Social & Environment matters
- **Mysore** – Project update
- **Hubli-Dharwad** - Review preparation progress - DPR, Projects Costs & Financing Plan; Institutional arrangements; RAP and EIA/EMP
- Review outstanding FM and Procurement matters.

2. The mission shared the key findings with the Project Director, Mr. S.K. Lohia and the Project Management Unit (PMU) in a wrap meeting on March 23, the mission also de-briefed DEA and CMU at the Portfolio Review held in Chennai on April 5, 2012.

3. The summary of Mission findings includes the following:

- Component IB progressing slowly, need for faster pace.
- DEA restructuring request awaited pending debt sustainability form from Government of Karnataka.
- Social safeguard issues i.e. land acquisition, finalisation of supplementary RAP, disclosure and implementation of microplans, and actions identified in the jointly agreed BRT implementation schedule require priority attention in Pimpri.

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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) and Gerhard Menckhoff (Public Transport Specialist – Consultant).

- Need for maintaining progress in Naya Raipur to finalise DPR, prepare detailed designs and bid documents for BRT and NMT infrastructure.
- Issue of counterpart funds in Indore critical and requiring early resolution.
- Mysore ITS full implementation in progress and baseline data collection for project monitoring and evaluation to be expedited.
- Hubli-Dharwad project preparation on track, state government submission to DEA to be expedited.

## 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	MU
		Procurement	MS	MS
		Financial Management	MS	MS
Disbursed Amount GEF	US\$ 2.68 mn	Problem Flags	One	One
IBRD	US\$ 13.38 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

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	Apr 30	MoUD/ GoK/ DEA	
Organise Procurement Workshop	Jun 30	PMU	
Report on PIU/ PMC staffing	Jun 1	PMU	
Submit QPR and IUFR for quarter ending Mar 31	Apr 15	PMU, Pimpri/ Naya Raipur / Indore/ Mysore	
Copy of State budget provisioning PIU's share for FY 12-13	Apr 30	PMU	
Submission of minutes of audit committee and IA report	Apr 30	PMU	
Copy of letter submitting annual financial statements by PIU's to the auditors	May 31	PMU	
Duly filed FM questionnaire for Hubli-Dharwad	May 31	PMU	
Expedite procurement of Component 1B activities:		PMU	
- Issue RFP and submit TER for activities 1-3, 5	Apr 15/ Jun 30		
- Draft contract for Research Facility 4	Apr 30		
- Finalise ToR and publish EoI # 7-9	Apr 30		
- Prepare ToRs for new activities			
- National Campaign on Sustainable Transport, Traffic and Transport	Apr 30		

<b>Actions to be Completed</b>	<b>By when</b>	<b>By whom</b>	<b>Status</b>
Study and Parking policy Masterplan (PC1B 13) - ToR for other new activities	May 31		
Submit status update on key agreed actions	Apr 15, May 15, Jun 8	PMU	
Submit BRT Implementation Plan Submit EoI Shortlist & draft RFP for 2 TAs/TER Submit TER for M&E, Outreach Plan ITS Expert for ITS Design & Procurement on board Study on Corr 3&4 Surveys & Service Plan initiated Corr 3&4 BRT station contractor on board Disclose microplans and initiate disbursement of assistance Constitute Grievance Redressal Committee Submit Encumbrance Removal Plan Finalise supplementary RAP Update BRT Service Plan	Apr 15 Apr 15/Jun 30 May 15 Apr 30 May 15 Jun 30 Apr 15 Mar 31 Mar 31 Apr 30 Jun 1	Pimpri-Chinchwad	Delayed Delayed
Submit updated DPR / Project Implementation Schedule Submit NMT concept designs Submit final NMT DPR Submit detailed designs for depot, pick up points & shelters & bidding doc Submit revised EIA Submit final SIA/RAP Submit draft contract for ToD Study Submit TER of M&E Study Submit EoI shortlist for PMC for ITS/TER Submit draft ToR and EoI for CSC	Apr 15 May 7 Jun 7 Jun 1 Apr 30 Apr 30 Apr 30 May 15 Mar 31/Jun 30 Apr 15	Naya Raipur	Submitted
Resolve counterpart funding issue Submit BRT Implementation Schedule Finalise ITS contracting strategy and submit draft bid documents for Pkg 1 / Pkg 2 Finalise arrangements for remaining M&E surveys & submit draft report Submit TER for TA activities Ensure additional staff for AICTSL	Apr 30 Mar 21 Mar 21/ Apr 15/ May 15 Mar 31/ May 31 Jun 30 May 31	Indore	Submitted PP Submitted Pending
Conclude ITS Implementation Conclude M&E baseline survey Submit EoI shortlist for bus operations and service analysis/ TER Submit Revised Project Implementation Schedule	May 31 Apr 30 Apr 15/ Jun 30 Apr 15	Mysore	
Submit final DPR including financial and economic analysis Submit cost estimates and broad financing pattern for the project Submit Procurement Plan	Apr 30 Mar 31 Apr 15	Hubli-Dharwad	Submitted

<b>Actions to be Completed</b>	<b>By when</b>	<b>By whom</b>	<b>Status</b>
Submit draft EIA and RAP	Apr 30		
Submit Project Implementation Plan	Apr 30		
Confirm constitution of BRT SPV	Apr 30		
Complete necessary internal approvals and DEA submissions	Apr 30		
Submit detailed designs & bidding documents for terminals & depots, NMT	May 31		

#### **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 reforms 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 5 of the 9 activities identified under Component 1B.

7. In regard to Component 2 on the City Demonstration Projects, the Phase 1 cities (Pimpri-Chinchwad, Mysore) are on track with their first year procurement concluded or in final stages. In Indore, while the PMC is on board the issue of counterpart funding is under review by MoUD, Government of Madhya Pradesh and Indore city agencies. Among Phase 2 cities, the progress in Naya Raipur is reasonable with greater clarity on overall project design and service plan, coming on board of the consultant for preparation of detailed designs for both public transport and non motorized transport infrastructure and progress of design preparation. Hubli-Dharwad, the new city proposed to be inducted into SUTP, following the cancellation of the Pune Project, has now submitted its commitment letter to MoUD and also obtained state Cabinet approval for the Project. The debt sustainability certificate is now pending from the Government of Karnataka.

#### **Component 1B**

Implementation Progress: **Moderately Satisfactory**

8. The capacity building component comprises two sub-components - Sub-component 1A being implemented through the UNDP and component 1B which is implemented through the World Bank. Being a composite project, the Bank reviewed and provided comments and general guidance on both components.

There are three main activities under component 1A and their current status is as follows:

**Strengthening of the Institute of Urban Transport** – the report of consultants appointed to develop a business plan for the Institute has been submitted and the Institute has already started taking action on some of the activities. They have taken up a series of training events, on financing, institutional development and NMT as the first set of actions. More are planned. Their main problems seem to be in getting adequate participants and trainers for these activities. They were advised to seek the support of the Training Division of the Government of India . The training division oversees several training institutes in India and can be of immense help. Besides, it would be good to have a firm annual calendar for such training so that ad hoc events are avoided. It has been the experience that ad hoc events, especially if planned at short notice, do not attract participation.

**Preparation of training modules** – several training modules are being developed and a consortium of consultants has already been appointed for this. They have so far submitted inception reports and an outline of the main contents of each module. The Mission advised that the training modules should be thought of as a set of instructions to the trainer rather than as a set of instructions to the trainee. Accordingly, training modules should have a trainers instruction set to accompany each module.

**Preparation of toolkits** – several toolkits are also being prepared and consultants have been appointed for these as well. The consultants are generally academic institutions expected to have expertise in the relevant topics. The toolkits under preparation are on Land use transport integration and Density of urban growth (CEPT ), ITS and Traffic Management (SPA), Public transport and pedestrian accessibility (IITD), Urban Travel demand modeling (CEPT), Financing and financial analysis (CEPT), Traffic analysis and performance measurement (Warangal), Environmental analysis (TERI), Transport demand management (TERI), Road safety and safety audits (IITD), Urban Road capacity and LOS analysis (Warangal), Driving code (an NGO), Social impact analysis (SPA).

#### **Status of Activities under Component IB**

<b>Sl No.</b>	<b>Activity</b>	<b>Tentative Amount (Rs)</b>	<b>Status – to be updated</b>
1	Development of a structure and an operations manual for UMTA; Business Plan for Urban Transport Fund	200,00,000	EOI shortlist and draft RFP approved by the World Bank. However, there are some comments from the Ministry of Urban Development that are being incorporated and will be submitted to the Ministry soon.
2	Development of a standard architecture and plan for ITS and Traffic Management Center	200,00,000	Status same as (1) above
3	Development of a model NMT action plan, bike sharing plan and TOD Guidelines	100,00,000	Status same as (1) above
4	Development of a Research Program	30,00,000 + 570,00,000	The study proposal from CEPT is under review.
5	GHG Emissions reduction assessment	100,00,000	Status same as (1) above
6	Leaders Program	550,00,000	CEPT, a Centre of Excellence, has shared the revised concept and indicative cost estimates with the PMU and Bank. These are under discussion. The Training expected to be launched in India - Jul-Aug 2012
7	Impact Evaluation Study for		ToRs finalized and EoI under review

	the Bus Procurement under JnNURM		
8	Model Contract Agreements with Private Bus Operators & Guidelines for City Bus Services		ToR under finalisation
9	Preparation of GEF5 Project		ToR under preparation
10	Balance	18,50,00,000	
	TOTAL	36,00,00,000	

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

- National campaign on sustainable transport – in order to encourage a shift towards sustainable modes, a national campaign would be a good idea. However, for this it would be essential to appoint a marketing and media consultant and not just focus of getting media clips. Mere media clips, without a campaign strategy means we run the risk of publicity material that is developed but not used.
- 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.

9. 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.

Meanwhile, 13 officials from city and state governments were sponsored by MoUD for participation in the Leaders Program in Urban Transport Planning organized jointly by LTA and World Bank in January 2012. A debriefing of the officials was also held by MoUD subsequently and positive feedback was received on the training and its utility. The same training is proposed to be launched in India this year to develop capacity of practitioners in the sector.

**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	MS
<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 made a 60% 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 8% 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. Several TA activities under the GEF grant are under procurement.

(ii) *Naya Raipur:* The DPR is expected to be finalized shortly with important decisions on the three corridor service levels and phasing concluded. The concept designs for terminals/ pick up points, depot and bus shelters are now to be developed into detailed designs and bidding documents prepared. The concept and approach to the NMT DPR along with initial concept designs have been prepared. Meanwhile, the procurement of TA activities i.e. Transit-oriented-Development study, M&E and that for Regional Mobility Plan and ITS PMC is 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. 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 critical issues such as NURM funding for the project are resolved expeditiously this would affect implementation progress.

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

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

10. 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. As agreed during the meeting, the cancelled funds from Pune Project are proposed to be allocated to the new candidate city Hubli-Dharwad which plans to implement a BRT project. A formal request to this effect is awaited from DEA to initiate the restructuring. The mission understands that the commitment letter from the city has been submitted to MoUD and the state is currently processing the debt sustainability certificate for submission to DEA. The reallocation of funds will be done once a formal request for restructuring is received. Once Hubli-Dharwad is on board, it is expected that some of the contracts can be awarded over the next 6-9 months.
- *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 already 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. PCMC shall share the land acquisition status in the pre-specified format and an encumbrance removal plan to enable easy tracking of the main issue areas at the earliest. The finalization of an independent Grievance Redressal Committee, disclosure of the approved Microplans and disbursement of resettlement assistance should now be expedited. Supplementary RAP for the Nashik Phata Flyover has been pending for sometime and it has been agreed that this shall be finalized and submitted by May 31.
- *Need for Coordination between Pimpri and Indore BRT Stakeholders.* The mission was pleased to see a BRT implementation schedule for Corridors 3 & 4 in Pimpri as well as for Corridor 1 in Indore integrating the delivery of the various components culminating into a possible launch date for the corridors under consideration. In Pimpri, the first BRT Corridor has been ready for some time now while in Corridor 3 & 4 the road infrastructure is under construction, the delivery of 80 buses has been received, the stations are yet to be constructed, the ITS equipment is still to be procured, BRT service plan yet to be finalized and BRT bus operators to be brought on board. This involves not only coordination within PCMC but also with Pune Municipal Corporation and PMPML, the bus company servicing the region. The same issue of coordination is important in the case of Indore among Indore Municipal Corporation, Indore Development Authority and AICTSL. Land acquisition along with ongoing sewerage works is still to be completed on some sections of the corridor, while station construction has been initiated this is likely to take another six to eight months to complete. Meanwhile, the ITS vendor needs to be on board and equipment available for installation once the stations are ready and bus operators contracted and trained in BRT operations. Both agencies must ensure adherence to the agreed schedule.
- *Inadequacy of Counterpart Funds in Indore.* The mission was informed that the issue of NURM counterpart funds for Indore BRT ITS project was under review of both the state and central governments. With 50% of the ITS component funds expected from MoUD this has serious implications for the Project unless resolved quickly. The Mission was advised that the matter would be resolved soon in a meeting to review the availability of unutilized NURM funds for allocation and take a final view on the matter.



- *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. Though the response of Railways has been positive so far, the approval to the location and design of the Pick-up point needs to be procured in a timely manner so as not to adversely affect project delivery.
- *PIU / PMU Capacity Strengthening.* The capacity of the cities in urban transport planning, safeguards, and procurement is weak and without significant handholding from the PMU/ PMC as well as the Bank serious delays are inevitable. The matter of induction of support staff to PIUs was discussed at length with Naya Raipur and Indore PIUs and agreements made on PIU strengthening. The PMU is encouraged to closely track the staffing of PIU's and follow up with them on the agreed actions. The PMC, supporting the PMU, at the same time, needs to strengthen resourcing on safeguards and procurement to be able to provide adequate support to the PIAs.

## VII. Safeguards – Environment and Social Management

<b>Project Rating: Safeguards</b>	
Pimpri	MU
Naya Raipur	S
Pune	-
Mysore	-
Indore	-
<b>Overall Project</b>	<b>MU</b>

11. **Environment Management.** The project performance is currently rated as Moderately Satisfactory as there has been some progress since the last mission. However, there are issues that may require the attention at the city level and follow-up from the PMU.

*Pimpri-Chinchwad:* Some progress has been made with regard to reporting of environmental management items across contracts – both for the fly-over structures and road corridors. The mission particularly noted that the contractor for the Empire Estate Fly-over needs to improve management of the campsite and streamline their public interface. For the fly-over at Empire estate it was further confirmed that the provision of the noise barriers also covers the ramps and that this will be executed at the time of construction. The mission was also informed about the recognition of the safety related performance of the team for Nashik-Phata Fly-over. This is a welcome development and the mission urges the PCMC engineers to ensure such impressive performance across the corridors under the project. It was further agreed that salient information about this achievement would be circulated through the next SUTP Newsletter. For the possible change of alignment to use an existing road stretch instead of transfer of land from MIDC, it has been agreed that a rapid assessment of potential impacts, such as increased noise at a

local school along the road, and their management will be carried out and shared with the Bank as soon as practicable. PCMC also agreed to share the details of tree plantation and transplantation already carried out and proposed to be carried out in order to compensate for trees required to be cut for the improvement along both corridors. In addition, the mission was also informed that the school along Nashik-Phata to Wakad corridor is still to be shifted. Therefore, the performance of the city is rated as Moderately Satisfactory. Annex 2 provides details including timelines for actions agreed during the mission.

*Hubli Dharwad:* The mission reviewed the 1<sup>st</sup> draft of the EIA and EMP for non-road activities as well as the EMP for the road widening component during meetings in Bengaluru. The mission urged KRDC and DULT to confirm inclusion of relevant portions of the EMP in the revised scope of work of the contractor. It was further agreed that the contractor selected for road works and KRDC officials would participate in an orientation/training session in collaboration with the PIU of the KSHIP2 project. In addition, the mission provided broad comments on EIA covering, among other items, consultations in the project area, alternative material/configuration analysis in various BRTS elements, and design of noise barriers. Comments from PMC hired by NPMU are due by 23<sup>rd</sup> March 2012. Since Hubli-Dharwad is already one of the candidate cities for the new Planning Commission of India's program on benchmarking of Urban Services, which include air quality as a key indicator, the project will use information from that effort rather than duplicate it. Importance of timely and broad-based consultations on ESMF provisions and the EA documents so that this can also be reflected in the revised versions was emphasized. The mission also agreed with DULT plans to have discussions in Hubli and Dharwad to invite views on the draft documents. The mission also highlighted the need for the proposed SPV to have environmental expertise in place, especially because the road component will move ahead independently of the remaining components. Also see details in the Annex 6.

*Mysore:* The mission was informed that a consultant has been hired for the certification of the EMS in the workshop at Mysore to ISO 14001. It was agreed that KSRTC will try to finish the process of certification in advance of the next annual meet for the cities.

*Naya Raipur:* EIA should be finalized after the designs are frozen. It was agreed that the NRDA will keep the documentation ready to be able to submit the same within a week of the designs being finalized. The mission visited the new proposed site for BRT interchange with the Railway station. The site is close to the current two-wheeler parking and has several trees and houses, in the proposed area identified by the Railways' officials. It advised NRDA and PMC to ensure that the EIA reflect the current ground conditions, identify the impacts and management measures such as possibility of transplantation of trees in line with the ESMF, and suitably incorporate these in the management plan proposed. For the proposal of interchange with intercity buses at the ends of NH6 and NH43 near Naya Raipur, the mission advised NRDA to ensure safety of the users as crossing of the entire NH carriageway may be required to avail of the BRT services. In view of the above, the project performance on environmental safeguards management is rated as moderately satisfactory. Further details are provided in Annex 3.

12. **Social Management.** The Mission visited Pimpri-Chinchwad, Naya Raipur and held discussions on Hubli Dharwad in Bangalore.

*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 contractors due to various encumbrances. In case of the World Bank financed packages, 478 meters out of 2520 meters (19%) is yet to be handed over.*

The key tasks pending from social safeguards point of view in Pimpri-Chinchwad are: (i) Approval and disclosure of individual entitlements to the project affected people after incorporating the members of independent Grievance Redress committee; (ii) finalization of supplementary RAP for additional impacts in Nasik-Wakad road after incorporating suitable rehabilitation measures for affected shopkeepers and describing the land acquisition process and time table; (iii) take necessary measures for early implementation of the above plans; and (iv) complete the pending land acquisition and other land related matters. In addition, PCMC needs to submit the revised land acquisition progress report and encumbrances removal plan based on the guidance provided by the Bank team during the mission. These two statements will become reference for further follow-up on mitigation of those impacts. The PCMC informed the Bank Team that they have no plans to use the GEF funds for strengthening the social safeguards capacity and feel that present capacity is adequate to manage the social impacts.

The social safeguards implementation continues to be “*Moderately unsatisfactory*”, since the actions agreed during the mission to update the rating are not yet fully completed. These include : (i) Approval, disclosure and implementation of R&R assistance; (ii) put in place an independent Grievances Redress Committee to deal with any grievances related to eligibility and payment of R&R assistance; and (iii) deal with other land acquisition and R&R implementation matters. In addition, it was learnt that the compensation for structures is being paid at *depreciated value* which is not consistent with ESMF provisions adopted for the project and described in the RAP. In order to avoid further down grading the safeguards rating, the PCMC needs to complete the above mentioned tasks and its progress in implementation of the tasks in those plans. The details of social safeguards impacts and agreed dated action plan is provided in **Annex 2A**.

*Naya Raipur*: The Mission noted that the RAP did not fully incorporate the comments shared previously and agreed that it would be updated including for the final pick-up point locations once those are frozen by April 30.

*Proposed BRT in Hubli-Dharwad*. The magnitude of land acquisition in this proposed BRT is about 29.5 hectares including 5.5 hectares of Government land. This will affect about 800 households. The RAP for land acquisition and resettlement impacts is in advance stages. There are few entitlements to some impact groups including the minimum compensation under consent award which maybe revisited. The Bank Team’s comments and views on these short falls were discussed and clarified during the mission. The revised draft shall address those shortfalls and other comments provided by the Bank Team. The details of social safeguards impacts and agreed dated action plan is provided in **Annex 6**.

## **VIII. Procurement, Expenditures and Disbursement Plans**

13. **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.

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. PMC will issue the record of deliberations in the Workshop and will share the presentation with the participants. Given the success of the workshop, it was decided to hold such Workshops bi-annually and can include a range of contract management issues.

<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>

15. **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>

The disbursement projections shall be revisited and finalized at the time of proposed Project Restructuring.

## **IX. Project Management**

19. *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 a junior 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.

20. *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.

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

23. The next mission will be taken up 11-20 June 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. C. G. Anand, 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 KRTCL
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 small World Bank mission, accompanied by staff of the PMU and PMC, visited Pimpri-Chinchwad on November 8-9 to review safeguard issues affecting the implementation of the proposed BRT system. A full mission visit took place on 12-13 March, 2012 to discuss with the Municipal Corporation (PCMC) the implementation of the Pimpri-Chinchwad component of the Sustainable Urban Transport Program (SUTP). It met the Commissioner of PCMC, Mr. Asheesh Sharma, his staff and their consultants; also present were staff of ITDP which is assisting PCMC with the BRT Project. On March 13, the Mission met with Mr. R.L. Joshi, CMD and Mr. Satish Kulkarni, Joint Managing Director of the bus company PMPML and some of his staff.

**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-Rawed 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 visited the two bus funded packages on alignments of Corridors 3 and 4 where construction has been ongoing since some time. 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.

<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	60.00	<b>60.7</b>
3-2	57.11	17.15	30.0
3-3	28.87	18.80	<b>65.1</b>
4-1	24.10	15.62	<b>64.8</b>
4-2	19.88	0.99	5
4-3 Empire Estate Grade Separator	99.42	8.23	8.3
4-4	-	-	-
4-5	37.07	14.40	38.8

The mission was pleased to note the progress of works (60%) at the Nashik Phata flyover and that the shifting of the transmission line by the Railways has also been contracted. With this the contractor should be able to move ahead and the only remaining bottleneck would be the pending land acquisition for the two ramps and loop lines.

The progress on the other contract for Empire estate intersection continues to be slow at 8% after almost a year and the Mission expressed its concern in this regard.

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 has not been awarded so far owing to land acquisition issues with MIDC. 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.

7. **BRT Stations:** The Mission was informed that PCMC proposes to proceed with BRT stations with a width of 4m on Corridor 3 and 4. On Corridor 2 these would be 5m wide to cover the median vacated by Transmission lines. Finally, on corridor 1 these would be narrower as there would be two stations on either side.

10. There is a proposal to use similar designs for both the Pune and Pimpri BRT stations, however, a final decision on this is pending. PCMC would be proceeding with the contracting of the stations for corridors 3 and 4 by June 30, 2012, in order to provide sufficient time for station construction. For Corridor 1, PCMC is reviewing the need for 22 additional stations on NH4 and will take a decision on their construction accordingly. PCMC mentioned that they may prefer to launch Corridor 3/ 4 ahead of Corridor 1 as those were entirely within their purview as opposed to Corridor 1 & 2, where a large part of the corridor fell within PMC limits. The Mission advised PCMC to retain focus on Corridor 1 as that was the arterial corridor connecting Pimpri to Pune with significant traffic volumes and scope for significant travel time savings for commuters between the two cities.

12. **BRT ITS.** PCMC and PMPML informed the Mission that they would be inviting fresh tenders for ITS vendor once a formal decision was taken in the PMPML Board on the previous tender whose bid validity had expired. PCMC on the request of PMPML is proceeding with the procurement of an ITS consultant to advise on the technical specifications and also assist with bid process and evaluation. PCMC proposes to bring such a consultant on board no later than April 30, 2012. The mission reiterated the urgency to move forward on the ITS component. PCMC / PMPML confirmed that they would also be



hiring a Project Management Consultant for ITS to oversee the implementation of the system once the vendor was on board.

14. **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.

15. The procurement of the four studies agreed with PCMC has been initiated. The EoI shortlist for these is under preparation. The following timelines were agreed:

- (a) Parking Policy and Master-plan: Shortlist and draft RFP submitted by April 7 and TER submitted by June 30
- (b) BRT Outreach & Promotion Plan: TER submitted by May 15
- (c) BRT Passenger Access Improvement to Public Transport & Master-plan on BRT Corridor: Shortlist and draft RFP submitted by April 7 and TER submitted by June 30
- (d) Monitoring and Evaluation: TER submitted by May 15.

16. 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.

17. There are many 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 suggested a similar approach to the Commissioner and others in 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.

19. **Bus Layouts and 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 need to be inter-connected. 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.

20. *BRT Service Plan.* ITDP has been preparing a route rationalization plan for the two cities and PMPML plans to proceed with it with minor modifications. This is expected to be approved for adoption by the PMPML Board shortly. The mission expressed the view that the service plan should consider express BRT services, on Corridor 1 where the corridor length and projected bus frequency would appear to amply justify express buses. ITDP agreed to review the possibility of introducing express services on the corridor and submitting their report no later than April 30, 2012, in view of the tight timelines, so PMPML has sufficient time to review the suggestions and take a view on the same. The main highlights of the mission discussions and the aspects to be reviewed are provided below.

**BRT Service Plan for Corridor 1:** As had been suggested before, a key element of initiating the BRT services is the elaboration of and agreement on a bus service plan for the corridor. ITDP has done much

valuable work by developing a bus route restructuring plan for Pune / Pimpri-Chinchwad, and it is understood that PMPML agrees with the technical work. Taking account of that metropolitan-wide plan, a specific bus service plan should be developed for Corridor 1 in Pimpri-Chinchwad. Also, options should be evaluated for operating those BRT services which are expected to start operation in the first semester of 2013.

- *Basic BRT route and possible express services* – 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 16 stopping locations on each side (i.e. 32 stations). The preliminary peak demand estimate is for about 6000 passengers per hour per direction in 2014, equivalent to 75 fully loaded 12-meter buses. This would require an average frequency of a bus every 48 seconds; this is too high for a one-lane busway and would lead to severe bunching and a low service quality during peak hours. To overcome this problem, it had been suggested to run express BRT buses along this corridor, in addition to the standard all-stop BRT buses; not only would the expresses reduce substantially the travel time for the passengers using them, but they would also avoid the bunching risk. The service plan for the basic BRT corridor should confirm (or otherwise) the need for express buses, identify the express stations and recommend the operating characteristics of the Express services (possibly running in mixed traffic, with docking at the express BRT stations – there could also be other options). For both express and all-stop services, the service plan should establish operational characteristics such as frequencies, commercial speed and other parameters for bus scheduling both in the peak and off-peak.
- *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 Bhakti Shakti. The exact alignment of these complimentary routes need to be established, as well as operational parameters such as frequencies, commercial speed and other parameters for bus scheduling both in the peak and off-peak. Functional designs have been prepared of roadways and platform locations of the transfer terminal, 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 consideration is being given to initially build the roadways and platforms on the ground level (needed for efficient BRT operations) and building the upper floor at some later stage. It would be desirable to initiate the tendering and building that the ground level of the Bhakti Shakti terminal as soon as possible.
- *Feeder routes* - From the Bhakti Shakti terminal, feeder buses would radiate into the surrounding area, 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 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.
- *Busway segregation and functional improvements of about five intersections::* The physical segregation of the BRT busway and the mixed-traffic lanes is yet to be established. The optimal design solution is complicated by such issues as (a) the expected high number of peak hour buses and the need to avoid bunching and congestion on the segregated busway, (b) the incorporation of BRT express services in the corridor, provided this is confirmed to be desirable, (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 roundabouts and other major intersections. To analyze these issues, and it is recommended that a competent traffic engineering firm could be contracted.

21. **BRT Service Plan for Corridor 3 & 4.** The current draft of the BRT service plan also 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. PCMC with the help of ITDP have confirmed that the CRISIL study of 2008 did not generate these types of data and they will be procuring a consultant to conduct the surveys and develop the service plan for those two corridors. The draft ToR for this was shared during the Mission for comment. It was agreed that PCMC would initiate procurement and bring on board the consultants for this activity by May 15.

22. **BRT Fare Collection.** With regard to fare collection/validation, the mission was 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 lines would have to travel in mixed traffic (primarily in Pune). While full on-board fare collection may make sense initially with the BRT pilot line on NH-4, the previous mission already expressed that this type of operation would be suboptimal when the BRT services start operating on Corridors 3 and 4 and on Aundh-Ravet road. PMPML also shared that their e-ticketing vendor contract was valid until 2015. It was agreed that recommendations on the introduction of off-board fare collection in Pimpri-Chinchwad, including an estimate of the cost and operational implications of having fare control at the BRT stations rather than inside the bus, would be a useful study.

23. **BRT Private Operators.** PMPML will be issuing tenders to contract private bus operators on a gross cost contract basis for the BRT and city wide bus service. The mission discussed with PMPML the need 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.

24. **BRT Implementation Schedule.** The Mission had extensive discussions with PCMC and PMPML on a BRT Implementation schedule for Corridor 3 and 4 identifying the key milestones leading up to the BRT launch in the city by early 2014. While the road infrastructure on the Corridors is ongoing, 150 buses expected to be available by April 2012, the BRT station construction is proposed to be contracted out by June 2012 and the service plan finalization only after the consultants are on board and concluded O-D surveys, contracting of private bus operators and contracting and implementation of ITS equipment are pending. The ITS and preparation of Service Plan will need to be expedited in order to meet proposed timelines. The other major risk is delays in completion of road infrastructure owing to delays in land acquisition. In the case of Corridor I, it is evident that bus station construction and ITS are the main items likely to delay BRT service launch. It was agreed that PCMC shall share the updated BRT Project Implementation Schedule for 3 & 4 corridors based on the discussions during the mission by March 31 (including such operational aspects as the contracting of BRT bus services, training of bus drivers, implementation of operational controls through ITS, public information campaigns etc).

25. **Project Management.** The Mission has been expressing concern over the long response times of the PIU and delays in many action areas agreed in previous missions. The Mission noted some improvement with Mr. Shrikant Savane being designated the nodal officer for the Project. The Mission was informed that a retired officer had also been identified for supporting the PIU.

## **Environment Management**

24. The mission met with PCMC officials, their PMC hired for oversight under the project, contractor teams executing the fly-overs and visited the sites for the two fly-overs as well as the part of the road where re-alignment is proposed to avoid MIDC land.

25. Nashik-Phata Flyover: The mission noted that the Nashik-Phata flyover site has been awarded a Gold Award for safety measures and congratulated all the involved team members for this achievement. It also highlighted the need to develop a comprehensive plan for removal of debris from Pawana river bed and its proper disposal. It was agreed that the Contractor would prepare this and share it with the PMC by 31<sup>st</sup> March 2012. It was agreed that once finalized PCMC will communicate the same to the Bank through the next QPR.

26. Empire Estate Flyover: The mission observed that the agreement reached on the improvements to the residential areas in the camp site were still not fully implemented. The safety personnel working on the construction yards and in the work site in line with the EMP should be a prime consideration during the execution phase. It was agreed that this would be taken up on priority and photographs documenting the improvements will be shared with the PCMC and Bank teams by 31<sup>st</sup> March 2012. The mission also discussed how to communicate the information regarding the construction planning better to match the site conditions and constraints. The mission was also informed that, as agreed during the last mission, the consultant has reviewed the practicality and the design now includes the noise barriers on the ramps that allow access to the flyover. The mission advised that during its next visit to site it would like to visit the off-site facilities, if any, of the contractor.

27. Alignment Change in Corridor 4: The mission visited the stretch of road that may be improved in place of the proposed transfer of land from MIDC. It noted 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.

28. PCMC led activities: PCMC informed the mission that as part of its on-going activities, it has undertaken substantial plantation activities as well as transplantation of trees from the corridors under SUTP also. The mission requested PCMC to share the details of the transplantation and plantation as part of the next QPR so that this key EMP measure is tracked to its successful conclusion.

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

- Submit BRT Implementation Plan by April 15
- Shortlist and draft RFP for Parking Policy and Master-plan to be submitted by April 15 and TER submitted by June 30
- Shortlist and draft RFP for BRT Passenger Access Improvement to Public Transport & Master-plan on BRT Corridor to be submitted by April 15 and TER submitted by June 30
- Submit TER for M&E, BRT Outreach and Promotion Plan by May 15
- Ensure that ITS Expert for ITS Design & Procurement is on board by April 30
- Initiate study on Corridor 3&4 Surveys & Service Plan by May 15
- Ensure that Corridor 3&4 BRT station contractor is on board by June 30
- Report on feasibility of introducing express services on the corridor to be submitted by April 30
- Update BRT Service Plan by June 1
- Disclose microplans and initiate disbursement of assistance by April 15
- Constitute Grievance Redressal Committee by March 31

- Submit Encumbrance Removal Plan by March 31
- Submission of Land acquisition progress report as of September, 2011, in the revised format by March 31
- Finalise supplementary RAP by April 30
- Preparation of comprehensive plan for removal of debris from Pawana river bed and its proper disposal by March 31
- Photographs documenting improvements to the residential areas in the camp site and construction sites to be shared by March 31

**Social Management**

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. The land acquisition in this project is challenging in view of complex situations such as involvement of defence, MIDC and railway lands, non availability of ownership records and construction of shops and houses in the private lands reserved for roads in the Development plan, involvement of resumption of public lands occupied by squatters/ encroachers, etc. The total land acquisition involved in this project is 46.65 hectares and out of this, so far only 62% of the land is acquired and some land owners have given consent for handing over of another 17% of area pending the land acquisition. Thus, 79% of the area is available for construction and the balance is not available due to pending land acquisition, transfer of MIDC or military lands and litigations due to court cases. In case of MIDC land, PCMC is considering modifying the alignment to avoid the transfer of this land due to difficulties in transferring this land.

2. **Land acquisition Progress.** The draft progress report on land acquisition was provided to the mission which has some discrepancies which were discussed with PCMC. It was agreed that the revised report will be submitted to the Bank shortly which becomes reference for further follow-up. PCMC should use this report to monitor the progress and take appropriate steps to speed up the land acquisition. 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	Land acquisition ( in Ha)	27.03	19.62	46.65
2	Land acquisition completed through Award ( in Ha)	3.64 ( 13.47)	4.68 ( 23.85%)	8.32 ( 17.83%)
3	Land acquisition completed through option of TDR/FSI ( in Ha)	14.42 ( 53.35%)	6.45( 32.87%)	20.87(44.73%)
4	Land acquisition held up due to court cases ( in Ha)	1.02(3.77%)	0.23 ( 1.17%)	1.25(3.21%)
5	Pending transfer of Military land ( in Ha)	1.44 ( 5.33%)	0.00	1.44 ( 3.09%)
6	Area where land owners given consent but LA is yet to be completed	6.98(25.82%)	1.09 ( 5.55%)	8.07 ( 17.30%)
7	Area under acquisition process	2.82 ( 10.43)	7.23 ( 36.85%)	10.05 ( 21.54%)
	<b>(b) Compensation Payment</b>			
8	No. of land owners as per LA compensation Award	1,412	245	1,657
9	No of land owners served notice for receiving the compensation(Section 12-2)	1,412 ( 100.0%)	245	1,657 ( 100.0%)
10	No of land owners received compensation	57 ( 4.03%)	245 ( 100.0%)	302 ( 18.22%)
11	No of land owners appealed for TDR/FSI so far	134	34	168
12	No. of land owners received TDR/FSI so far	133(99.25%)	34 ( 100.0%)	167 ( 99.40%)

**Note:** Due to discrepancies in the land acquisition, the total related to land acquisition is more than 100%

**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) whose land acquisition is completed as of December, 2011 and the vulnerable families list is prepared. The Bank team reviewed the draft report on this and advised PCMC (i) to finalize the GRC composition to include only those members who are not directly involved with the implementation and (ii) have the microplans approved by the component authority, disclose and initiate the payment of cash assistance and other support proposed in the micro plan. The Bank team clarified in response to PCMC's query that all the allowances and assistance proposed in the Micro Plan is consistent with the ESMF adopted for the project and the budget for this is already provided in the RAP adopted for this project in October, 2010 at the time of project appraisal. The affected families identified for various entitlements 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>

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

**4. Supplementary RAP for Nashik-Phata Bridge Portion.** This supplementary RAP related to those 144 squatter families living in the transit houses and 33 shopkeeper keepers living along the Kasarwadi railway. The Bank Team clarified that this draft RAP does not yet adequately describe the proposed economic rehabilitation measures to the affected shopkeepers and the land acquisition process. It was again emphasized that in view of the special characteristics of the affected shopkeepers, it is best for PCMC to resolve the alternative rehabilitation measures through consultations and sign documents to reflect the agreement reached during the consultations. It was also informed that the legal status of the structures of landowner have been approved by the court . The Bank Team clarified that in line with the Bank's operational policy provisions, all the affected structures of owners need to be provided compensation/ex-gratia for the affected proprietries. The PCMC is yet to videograph the affected properties and the Bank team once again reiterated the need for videography of the affected properties of the shopkeepers to deal with any grievances that may arise in the future. Once the alternatives rehabilitation measures are adequately described in the RAP, it need to be submitted to the Bank for review and endorsement and information on this, PCMC should approve, disclose and implement accordingly.

**5. Encumbrance Removal Plan.** During the last mission in November, 2011, the Bank team discussed the need for coordination between the civil works and land acquisition and resettlement implementation. In this context the encumbrance removal plan was discussed and a format was provided to prepare such a plan. A partially prepared draft report on this was shared during the mission consisting of the list of encumbrances for both the corridors. The proposed mitigation plan to deal with these encumbrances has not yet been incorporated. The mission discussed this draft report and advised them on how to propose the mitigation measures. The summary of encumbrance and status of handing over of the lands to the contractors is provided 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 (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%)	2.80 Kms (27.45%)	4.41 Kms (24.40%)	478 meters out of 2520 meters(19%) is not available in WB financed packages

\***Nashik Phata-Wakad:** Chainages- 842-1120;1650-1920;1920-2240;5120-5470; 7420-7640,7700-7820 and 7780-7880 are not available for handing over to the contracts

\***Kalewadi-Phata-Dehu Alandi Road:** Chainage- 860-940;1600-1980;2160-2200;2340-2480;2480-3000; 3800-4000;4940-5100;5100-5160; 5780-6480;8670-8700; 8930-8970;9630-10,000; 10,100-10,200 are not available to hand over to the contractors.

6. As per the encumbrance removal plan, 4.41 Kms out of 18.08 Kms (24%) area is yet to be handed over to the contractors due to various encumbrances. In case of World Bank financed packages out 478 meters out of 2520 meters (19%) is yet to be handed over. The encumbrances mostly include the pending land acquisition, pending court cases, transfer of Government lands and need for shifting the grave yards. A total of 20 stretches varying between 30 meter to 700meters are not currently available for handing over to the contractors. *The delay in handing over of these stretches to the contractors varies between 30 months in 11 cases and 14 months in other 9 cases. This delay will have serious implications for cost and time over run, if urgent solutions are not found.*

7. **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.

8. **Dated Action Plan.** The mission reviewed the dated action plan agreed during the previous mission and its status and revised target dates is provided below.

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

No	Actions	Responsibility	Target Date	Current Status	Revised Target Date
1	Preparation of Encumbrances removal plan	PCMC	30-Nov-11	Part Done	31-Mar-12
2	Summit Land acquisition progress report as of September, 2011, in the revised format	PCMC	30-Nov-11	Done with some discrepancies	31-Mar-12 (Updated and revised report)
3	Finalize and Disclose the Individual Entitlements	PCMC	20-Oct-11	Part Done	15-Apr-12
4	Notification of Grievance Redress Committee (GRC)	PCMC	20-Oct-11	Not Done	31-Mar-12
5	Strengthening of PIU Capacity	PCMC	20-Oct-11	Dropped	NA
6	Time table for pending Land acquisition	PCMC	20-Oct-11	Dropped	PCMC expressed that its not possible to prepare the time table
7	Submission of Supplementary RAP for additional impacts in Nashik-Phata bridge portion.	PCMC	31-Oct-11	Part Done	ASAP



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

**Naya Raipur**

1. A World Bank mission visited Raipur on March 16-17, 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. One meeting, regarding the design of the BRT terminal at Raipur Railway Station, was also attended by a representative of Indian Railways. A follow-up meeting was held on March 21 in the Bank's Delhi office, which was attended by NRDA's Chief Engineer and representatives of the PMC and NMT consultants.

**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. It was asked that they should elaborate on their initial work, with a special emphasis on developing an NMT plan that fits into the estimated budget. Also, it was agreed that their contract should be amended to incorporate some NMT aspects not included in the original Terms of Reference.

3. With regard to the proposed NMT investments, it was felt that the design standards as currently defined were on the high side, thus not leaving much financial space to build many NMT facilities within the initial SUTP Phase I.

4. Roundabouts: On March 21, the mission and the consultant had a good discussion on designs for roundabouts within Naya Raipur along BRT corridors. In some ways it was a theoretical discussion because in Phase I, there will be limited places where there are large roundabouts at busy intersections on a high frequency BRT line. It was agreed that in the short and long term, roundabouts at intersections with minimal traffic could be designed **without** BRT directly passing straight through the roundabout and without signals to facilitate that move.

However, large, busy intersections with BRT moving straight through, should incorporate a large roundabout per the consultant's original concept but with a straight through, dimetral transitway for buses protected by signals that would facilitate both BRT and pedestrians.

This having been said, the NRDA suggested and the mission concurred that a design template be prepared for major, busy intersections per the agreed eventual configuration, but showing phased implementation. The initial phase would include aspects of the eventual roundabout such as raised pedestrian crossings and channelizations, but without the roundabout itself. It would also include traffic signals incorporating protected turning and pedestrian phases. It was agreed that the consultants would:

- Define alternative pavement design options and estimate costs per square meter of surface
  - NMT-paths for combined bicycle and pedestrian use (about 4 meter width rather than 3 meter bikepaths plus 5 meter footpaths)
  - Concrete versus pre-cast pavers in sand, asphalt etc.

- Provide a plan for bike parking at all BRT stations and terminals both in Raipur and Naya Raipur and design them in such a way that they contribute to the branding of both NM and BRT.
- Omit consideration of NMT paths along the expressway between Raipur and Naya Raipur, but include them on all BRT corridors in Naya Raipur
- Provide a design for the critical round-about at the entrance to the Capitol Complex including a pedestrian signal
- Prepare design templates for large roundabouts at busy intersections that could be implemented in phases per the discussion above.
- Submit an interim report by May 7, 2012, covering the pavement cost analysis and all other components of the NMT investment program (prioritized to stay within the Rs. 37 crores budget). To gain time, that report could be sent simultaneously to NRDA, the PMC and the World Bank, for their review and comments.
- Submit a final DPR by June 7, 2012, including final designs and other results of the consultancy except the construction drawings and tender documents which would be produced after the DPR has been approved.

5. It was agreed to amend the consultants' contract to incorporate additional tasks such as providing advice regarding NMT movements and facilities within the Capitol Complex, 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 by April 30, 2012. In this context, the Bank team commented that bicycle parking at the Capitol 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.

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

6. Three BRT corridors have been considered:

- Corridor 1: Raipur 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)

7. 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.

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.

8.. **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 propose to contract private bus operators for the intervening period of two years until the BRT Lite services are launched. The tenders for these Interim Services have been issued and proposals are due by March 31, 2012. It is planned to contract these services for one year, starting in April 2012 (when the State Secretariat is expected to shift to the Capital Complex). Subject to satisfactory performance, that contract could be extended in 2013 until the new BRT services start operation.

8. **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 and branded and easily identified, safe and secure, attractive and easily accessible stations/pick-up points.

9. Keeping these objectives in mind, the previous mission agreed in November 2011 that the BRT would focus on a single corridor, rather than watering down the service quality by providing two BRT corridors between Raipur and Naya Raipur. With the assistance of Embarq, NRDA has been elaborating the details of the planned BRT service. The only major difference since November is the deletion of a transfer station / pick-up point at the Agricultural College, for lack of land availability; under the circumstance, the mission agrees with that decision.

10. **BRT Terminals in Raipur:** During the March Mission, extensive discussions were held with NRDA, and representatives of the Railways, Embarq and Arya Consultants about the location and size of the proposed **BRT terminal at the railway station**. The layout presented was felt to be inadequate, in large part because of insufficient bays for city bus services which currently occupy at least 6 positions at the station for layover during the day. It was agreed to delete the foot over bridge connecting to the Railway platforms and coming down on the platform of the BRT/Local Bus terminal. It would occupy a lot of space and be difficult to use for persons with disabilities; moreover it would probably not be used by the bus passengers in view of the limited flow of BRT vehicles between the BRT/local bus platform and the Railway Station.

Following a site visit, it was concluded that an alternative terminal site plan at a location shifted about 100 meters to the south of the one proposed at the Railway Station at the start of the Mission would be superior. It would be sufficiently close to the station entries and provide the required bays for at least 3 BRT and 8 city buses. This conclusion is yet to be confirmed and formalized with the Railways, taking account of the large two-wheeler parking area which would need to be relocated under the revised plan.

This having been said, the Mission noted that it would be desirable for the terminals at Raipur to incorporate brand elements and design themes consistent with those of the entire BRT system so that travelers would know that they would be accessing Naya Raipur though boarding in Raipur.

The Mission felt that the bus circulation patterns in the proposed intermodal terminal layout presented at the March 21 meeting in New Delhi were excellent. This having been said, installing a signal at the main Railway Station entrance at the extreme north end of the Railway Station Complex would facilitate **all** traffic movements in the area, make it easier for pedestrians to access the station from the other side of Station Road and make it easier for BRT and local bus services to turn at that point in either direction.

11. The major design issues for the BRT terminal at the **current State Government Secretariat in Raipur** are pedestrian access from the surrounding area, particularly Raipur City Bus Service Stops, facilitating one-way bus movements into and out of the terminal and providing sufficient internal clearances for buses to maneuver without undue backing and turning. The suggestion for having wider pedestrian access and shifted to one side is being incorporated. The mission agrees in principle with layout provided and would like to stress that no parking should be provided in that area for cars or other vehicles other than BRT and local buses.

12. In addition to functional access and storage of BRT and local buses, emphasis should be placed on high-quality public space development of the terminals and their environs, with the objective of creating a pleasant pedestrian environment – attractive to reaching BRT buses bound for Naya Raipur. It was already agreed in November 2011 that NRDA's architectural consultants (Arya) elaborate designs along these lines; Embarq is willing to assist in this work if required.

13. **BRT facilities in Naya Raipur:** To establish an effective public transport system in the medium and long term, it is desirable to plan for a BRT axis along the length of the new city – i.e. Corridor 3. It is also sensible to build now the initial phases of a BRT patio and workshop in Naya Raipur.

The **BRT Depot** designs were reviewed and found to be broadly fine. The mission advised NRDA to (i) review the high cost of the depot; (ii) the size and design of the administrative complex for ITS control and (iii) the need for 6 hydraulic jacks at the start of operations and the possibility of substituting some of these with power jacks. NRDA shall finalise these aspects by March 31.

14. The mission reviewed the typical BRT station design prepared by Arya consultants and agrees that it is attractive and would contribute to the branding of the new BRT system. It suggests that the cross section of the station access should be a single ramp, rather than being half ramp and half staircase, with a maximum slope of 8% or roughly 1 to 12. It agrees with the concept that the platform doors connecting with bus be staggered but suggests that access to buses pointed in the direction toward nearby junction should be behind that used by buses going in the opposite direction.

15. The same basic station design could be used for the Terminal at the Capital Complex, except that it would also serve conventional buses (on the right side of the platform) besides the BRT buses (on the left side of the platform). These terminals should be as close as possible to office buildings and be connected with them by attractive and covered passageways. In addition there would be – somewhat removed from the platforms themselves – bus layover spaces and sanitary facilities for the drivers and conductors.

16. **Design of BRT Buses:** The buses will be about 12 m long, have a floor height of about 900 mm and have two separate doors on each side. The door on each side should be some distance apart to make circulation within crowded buses easier. On the right side of the buses, the floor height would be aligned with BRT station platforms, which are about 900 mm above the roadway to permit no-gap, level boarding/alighting. On the left side of the buses, there would be steps to connect with low-platform stops on sidewalks or otherwise.

When operating on a completed BRT route where all stations are high platform, the left doors would remain closed and a cover plate placed over the stairwell to gain extra space within the bus.

Given the long trip length between Naya Raipur and Raipur, the interior should be configured for comfortable standing and a large proportion of the available space devoted to seats, and some vehicles could be air conditioned.

17. **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.

18. **Update of DPR:** The DPR should be updated to reflect the changes that were agreed in November and confirmed now regarding the BRT project. It should include an economic and financial analysis, in accordance with the Bank's appraisal requirements. This mission recommends that the DPR, including the relatively minor changes agreed recently, be sent to the Bank by April 15.

19. **Detailed Designs for BRT Infrastructure.** Based on the discussions during the mission the concept designs were finalized. It was agreed that the consultants shall proceed with these to prepared detailed designs and bidding documents which shall be submitted by June 1.

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

1. **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 TER has been cleared by the Bank. It was agreed that the draft initialed contract would be submitted to the PMU and the Bank by April 30, 2011 and contract signing shortly after.

2. **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. The ToR has been finalised and the EoI published.

3. **Project Management Consultants for ITS.** NRDA plans to appoint consultants for assisting with the design, procurement and implementation of the public transport ITS. The EoI has been published and it is agreed that the EoI shortlist along with draft RFP would be furnished to the PMU and Bank by March 31, 2012. The TER would be submitted by June 30, 2012.

4. **Monitoring & Evaluation Study.** The RFP has been issued and proposals expected by end of the month. It was agreed that the TER shall be submitted by May 15, 2012.

5. **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 been agreed and confirmed. The Mission was informed that while a Government Order is proposed to be issued in the short term for the constitution of the UMTA, the intent is to legislate the UMTA and this will be done subsequently. The GO is under process and expected to be issued by June 30, 2012. The GEF funds available for capacity building could be used to strengthen the UMTA appropriately once it is constituted.

**Environment Management.** The mission participated in discussions with NRDA officials, consultants hired by NRDA for the NMT component and visited the sites for interchanges with Railways at Raipur as well as with intercity buses close to Naya Raipur. The discussion focused on the finalization of the EIA for the BRT component with special reference to the new locations where facilities are being considered.

6. *BRT Component.* The mission visited the site where an interchange with the Railways is proposed in the Railway land in Raipur. The mission noted the presence of several trees and houses in the area where the current two-wheeler parking, which is the location proposed for the interchange. These may have to be removed for which the mission advised the NRDA to ensure that the provisions of ESMF were applied to manage the impacts. It also suggested that the consultants should examine the possibility of transplanting some of the trees that may be impacted. In case of interchanges at Naya Raipur, the key issue will be safety of the people who may need to cross the NH6 or NH43 to board the BRTS or the inter-city buses depending on the direction of travel. This would need to be suitably incorporated in the design of these elements. In each case, the mission recommended that the EIA should be finalized after the final decisions on design are made. It was agreed that NRDA will keep the documentation ready and submit the EA documents for review by the Bank within one week of finalization of designs and suitable incorporation of environmental aspects within the relevant project documents.

7. *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.** NRDA has been progressing on R&R and is in the process of finalizing the Resettlement Action Plan reflecting revised sub project schemes.

8. *Finalisation of RAP:* NRDA has revised the draft report and discussed during the mission period. The RAP, however, has not yet been finalized in view of changes in location of terminals/ pick up points. It has been agreed that the NRDA will revise the RAP incorporating all the changes in the sub projects and their social impacts and with revised mitigation plans and costs. The revised draft RAP will be shared with the Bank before April end 2012.

9. *Reported changes in Terminal/ Pick up Point Locations:* The two proposed terminals near Agriculture University land and at Dumtarai have been dropped from the project. The two locations (pick up points) identified and discussed in previous missions, one near Railway station and the other at Old Secretariat, have been shall remain. Site identifications for these two sub projects has been completed. The civil works for the proposed pick up points / terminals mainly includes constructing platforms with bus bays for BRTS buses and for regular buses. Land availability and ownership details and limited social impact assessment for these two sub projects will have to be conducted. It is agreed that the NRDA will do these assessments and include in the revised SIA and RAP accordingly by April 30.

**Key Agreed Actions: To be updated**

- Submit updated DPR by April 15
- Submit Project Implementation Schedule by April 15
- Finalise change request regarding NMT facilities with consultants by April 30
- Submit interim report on pavement cost analysis and all other components of the NMT investment program by May 7
- NRDA to finalize aspects of BRT Depot concept designs by March 31
- Submit draft final NMT DPR by June 7 including final designs and other results
- Submit detailed designs for depot, pick up points & shelters & bidding document by June 1
- Submit revised EIA by April 30
- Submit final SIA/RAP by April 30
- Submit draft contract for Transit Oriented Development (ToD) Study by April 30
- Submit TER of M&E Study by May 15
- Submit EoI shortlist for PMC for ITS by March 31, and TER to be submitted by June 30
- Submit draft ToR and EoI for CSC by April 15
- GO for establishment of UMTA to be issued by June 30

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

**Indore**

1. A World Bank mission met with AICTSL officials on March 19, 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.
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 undertake needs assessment, detailed design and finally oversee the implementation of the ITS component including Automatic Fare Collection Systems and Traffic Signal Priority.
3. *Cost Estimates and Revised DPR for NURM Sanction.* The new cost estimates indicate a cost of approximately Rs. 41 crores for ITS for all three corridors similar to the earlier estimate. However, 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. The Mission understands that the matter may be resolved in the next NURM meeting expected in April.
4. **Contracting Strategy.** Since the ITS subcomponents remain broadly the same, the consultants have finalized the contracting strategy for the ITS procurement. This was shared with the Mission and the mission advised AICTSL to resubmit the procurement plan based on this revised strategy. It was agreed that the bidding documents for package 1 and 2 would be submitted by April 15 and May 15 respectively.
5. **Status of AB Road BRT Corridor.** Service plan for the BRT is being prepared by Embarq and a brief presentation was made to the Mission on this. 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. Indore has 104 semi-low floor buses running in the city. They have been sanctioned another 125 buses by the Government of India under the JnNURM. About 50 buses would be needed for the BRTS and the contract for the same has now been awarded. They propose to use high floor, both side door buses for the BRTS corridors. New infrastructure for maintenance of the buses is also being created. Road infrastructure construction is close to completion but for some land acquisition issues holding up further work and pending sewerage and water supply projects also under implementation along the same corridor. Construction of 22 BRT Stations has been contracted out to two contractors for speedy



implementation and the mission was informed that the contract will take 6-8 months to complete. Contracting of private bus operators is yet to commence and proposed on a gross cost model.

The BRT service plan developed by the consultant for the Corridor appears to be consistent with current and expected future travel patterns. It is also consistent with BRT practice whereby services should be based on demand patterns and minimize indirection of travel and transferring. Care should be exercised to ensure that BRT buses that leaves/enter the transitway in the middle of the first BRT corridor can do so safely and without compromising the performance of the general traffic stream on either side of the transitway.

The Mission observed construction of BRT transitway stations on AB Road and the Municipality is to be commended for their design and the quality of construction. 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.

The final design point is that the ramp slope of the BRT stations being constructed appear to be over 12% or approximately 1/8. The Bank’s BRT Station Accessibility Guidelines suggest a maximum of 8%, preferably less than 5% to facilitate access/egress by disabled travelers, especially those in wheelchairs.

*Project Scheduling.* A comprehensive **implementation plan**, including a “Gant Charted” schedule has been prepared and discussed during the mission in the presence of other stakeholders. This is important as there are multiple stakeholders involved and AICTSL cannot launch the BRT service without the timely completion of the BRT corridors by IMC and IDA. The road infrastructure for the corridor needs to be completed (presumably by August 2012); the bus stations will take another 6-8 months to complete; bus delivery is expected by Oct 2012. Bus operator procurement is expected by June 2012. Once stations are ready only then can the off board ITS equipment be installed. It is now clear that the procurement of the ITS vendor is on the critical path since not only are bid documents to be finalized, but also the vendor procured, ITS designs finalized and equipment procured by the time of station construction completion. The revised implementation plan in agreement with IMC and IDA will be submitted to the PMU and the Bank by March 21, 2012.

6. *Financial Analysis.* EMBARQ on behalf of AICTSL shared its simple financial analysis of the bus operations to ensure break even of its operations. 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 recommended 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. It was agreed that this would be shared by March 31.

7. *Monitoring & Evaluation.* The Mission was happy to see that AICTSL has instructed IBI Group to proceed with collection of data for the baseline, and intent to contract the primary city wide surveys on mode shares and satisfaction surveys with a variation order to their contract. It was agreed that this would be finalized by AICTSL at the earliest (March 31) so that the baseline M&E surveys and data collection could be completed in advance of the BRT launch next year. It was agreed that the baseline M&E Report shall be submitted by May 31.

8. **Technical Assistance Activities.** Indore has identified and agreed with the Bank several TA activities. These agreed actions and timelines for these are indicated below:

- The BRT station design and traffic intersections design consultancy is ongoing.
- The EoI shortlist and draft RFP for Communications and public outreach has been received and *it was discussed that* AICTSL would formally approach the Bank for changing the contracting method to CQS owing to limited number of agencies in India with requisite experience and the medium size of the consultancy. This would be shared with the PMU and Bank by March 31, 2011.
- The EoI shortlist and draft RFP for BRT accessibility plan would be submitted no later than March 31.

9. **Implementation Arrangements.** The mission was pleased to note the induction of an Asst Project Manager into AICTSL. They informed that they had also identified an ITS expert and would identifying a Transport Planner to support AICTSL. Induction of additional staff is expected to be completed by May 31.

**Key Agreed Actions:**

- Resolve counterpart funding issue by April 30
- Submit BRT Implementation Schedule by March 21
- Bus stations to be completed by Oct-Dec 2012
- Bus delivery by October 2012
- Bus operator procurement expected by June 2012
- Finalise ITS contracting strategy and submit revised Procurement Plan by March 21 and submit draft bid documents for Package 1/2 by April 15/May 15
- Finalise arrangements for remaining M&E surveys by March 31 and submit draft report by May 31
- RFP issued for Communications Plan and BRT accessibility study by March 31; Submit TER for TA activities by June 30
- Sensitivity analysis on the financials to be submitted by March 31
- Ensure additional staff for AICTSL by May 31

**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 March 14, 2012, in Bangalore. The mission met the Director (Vigilence), KSRTC, and Project Director, KSRTC, Mr C.G. Anand, and other KSRTC officials, ITS vendor CMC LTd and ITS PMC IBI Group 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 Procurement.* The procurement for the ITS system was concluded in June 2011 and the pilot launched in September 2011. The PMC for ITS is also 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 May 31, 2012.

**Discussions on Automated Scheduling.** One of the issues that was covered was the possible integration of the Bank-supported ITS system and an improved, automated approach to public transport service scheduling and dispatching. All over the World, such approaches have been used to save operating costs and/or increase service and capacity for the same available resources. KSRTC buses are currently scheduled and dispatched manually. Buses and drivers are assigned to specific schedules using the simple rule that they serve a single route all day. They must complete a certain number of round trips based on the time estimated to make a single one roundtrip. The number of round trips attainable in a given day is based on manually collected route service time data. Historically, this data is not collected as often as it should be because the collection process is time consuming and costly.

Variations in route service times are even more difficult to determine. This can lead to over-assignment of buses to a given route because of uncertainty about schedule deviations. Run time data is also not often collected by time of day, meaning a bus “scheduled” for an off peak run is expected to take the same time as in peak periods, and vice versa. This means that either too many buses are made available in the off peak, too few in the peak or both.

An amount of time, known as “schedule recovery time” must be built into schedules to make up for service time variations during a given period due to accidents, unexpected congestion, breakdowns, etc. Where there is uncertainty about this variation, prudent service planning errs on the side of assuming a high number for schedule recovery time. This can also result in extra, unnecessary buses being assigned to some, particularly frequent routes and too much under utilized service or too much unnecessary layover.

Under assignment of buses can also happen. As congestion increases, travel times go up and more buses are needed to provide the same capacity. Infrequent manual data collection and analysis and schedule preparation precludes a rapid response to this type of change in the field.

The ITS system being proposed offers the opportunity to make a significant, positive change in this scheduling approach. First, since all buses in service will be tracked in real time, average service times and deviations around the average by time of day, day of week and even season can be easily compiled for all routes as frequently as desired. These could be used to rapidly develop new schedules that are better matched to conditions on the ground both in terms of average route service times and deviations around them. The availability of this information could also permit the development of vehicle and driver assignments that minimize unproductive layover time by allowing “interlining” whereby a single bus/driver can be assigned to more than one route. The ability to manually schedule with interlining is very, very difficult because of the almost infinite variety of combinations and permutations of routes that would need to be evaluated for different times of day, days of week, etc.

There are now proprietary scheduling software packages that can take the requisite route service time data produced and archived (stored) by public transport ITS systems and use it to optimize schedules and vehicle/driver assignments. This software, in use for years in Europe and North America, has proven enormously useful in making public transport systems more efficient. Not only can it produce more efficient schedules and work assignments, but, combined with passenger boarding data, it can also be used to help public transport service planners better match supply and demand making service more effective in carrying passengers as well.

The down side is that it can be expensive to procure and implement, which is one of the possible reasons that even the largest and most sophisticated public transport companies in India have been reluctant to adopt it. As one of the more technically advanced, better run public transport companies in India, KSRTC has shown some interest in adopting this type of software and the paradigm shift that goes with it; however, KSRTC management needs assistance in addressing the obvious risks associated with the expenditure of the amount of money needed for the entire change.

The Mission advised Mysore PIU to submit their proposal along with cost estimates for the PMU and Banks review.

5. **TA Activities under the Project.** The M&E Consultants are expected to be on board soon. The Mission strongly advised KSRTC to ensure that baseline data was collected prior to implementation of the Project. KSRTC agreed to have the surveys completed by April 30, 2012.

6. The detailed ToRs for the comprehensive PT study have been finalized and the EoI shortlisting ongoing. KSRTC shall submit the EoI shortlist and draft RFP by April 15 and TER by June 30.

**Key Agreed Actions: to be updated**

- Conclude ITS Implementation by May 31
- Conclude M&E baseline survey by April 30
- Submit EoI shortlist for bus operations and service analysis by April 15 and TER by June 30
- Submit Revised Project Implementation Schedule by April 15

## New City Proposals – Hubli-Dharwad

1. A meeting was held on March 14-15, 2012 in Bangalore 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; Mr. Hemaraju, MD NWKRTC and representatives of NWKRTC; Prof. Shivanand Swamy and other professionals of 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.

**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. There is, however, one remaining issue dealing with the project's financial and economic analyses. Over-all, the Mission commends the DULT and its consultants for the comprehensiveness and quality of its financial and economic analyses. The Mission concurs with the basic conclusions of both analyses, but is somewhat uncomfortable with the relative magnitude of the demand forecasts with and without BRT. The latest DPR documentation shows the BRT corridor ridership as twice as high as the base, counterfactual case for a 2034 forecast year, with much higher growth rates extending beyond the initial several years post the 2014 opening.

The Mission believes that this is possible, but it may be at the optimistic end of expectations. BRT experience elsewhere, suggests that in corridors where public transport is already the dominant mode and is likely to remain so, early increases in corridor ridership would be less than 50% at the end of the first three years of operation. In BRT's early years, the latest DPR forecast is actually conservative, no doubt reflecting the fact that even without a BRT transitway, the capacity of the highway is being doubled in the critical non-core section. This should lead to significant increases in bus and general traffic performance even in the counterfactual case during this period; however, over time, there will definitely be a deterioration in bus mode shares for the counterfactual case where increasing numbers of buses operate in increasingly congested mixed traffic; however, but a 100% difference by 2034 seems high.

Accordingly, the Mission suggests that a sensitivity analysis be preformed for both the economic and financial analyses with a new scenario incorporating a less optimistic set of assumptions on both ridership/revenue and costs, especially operating and maintenance because of uncertainty in fuel costs and efficiency. It is likely that BRT ridership could be 25% less in the forecast year and fuel costs 25% higher and the internal rate of return easily exceeding a 12% threshold.

**Busy Intersections.** 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.

4. **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>	

**Hubli-Dharwad BRT Co. Ltd.** The mission was informed that the BRT SPV formation had been cleared as part of the Cabinet approval to the Project and with the name of the SPV finalized as Hubli Dharwad BRT Company, the process of registration would commence. It was indicated that this would at best take a week to conclude and no later than March 31. It will then bring on board key staff over the next 3-4 months.

**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.

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.

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.

**5. Technical Assistance.** DULT and NWKRTC agreed to undertake the following technical assistance activities under the GEF Grant

- (i) Supervision Consultants for civil works
- (ii) BRT Communications Plans
- (iii) Parking Masterplan
- (iv) City Bus Route Rationalization Study
- (v) Monitoring & Evaluation and
- (vi) Social and Environment Experts for overseeing implementation
- (vii) Integrated transport and land use masterplanning for the city.

Draft ToRs have already been shared for some of these activities with DULT. It was agreed that the procurement for (i), (v) and (vi) would be initiated at the earliest. ToRs along with EoIs for these activities shall be shared by April 30.

**4. Procurement.** A presentation was made on the proposed BRT corridor of Hubli Dharwad which included the concept of procurement packaging, capacity at the SPV and the way forward to expeditiously execute the corridor in the remaining two and half years. It is noted that construction of corridor and few support consultancies are covered under GoK's own alternate funding arrangements. Such procurement may be excluded from the Procurement Plan for the Bank funded project but should be included in the Project Implementation Plan. Considering interdependency of the executions of contracts under parallel funding for completion of the BRT project, the Bank would also monitor the progress of awarding those contracts. Land acquisition will be involved in many packages. Where encumbrance free land is available procurement such cases should be initiated for procurement to take advantage of lead time and to avoid bunching. The schedule in the plan should reflect availability of land and other input. The format of the Procurement Plan for Works and Consultancies was shared during the mission. NCB bidding documents for Works (W2) will be provided by PMC.

Based on the presentation, two consultancies (i) involving hiring of safeguard experts to support the PIU in implementation phase, and (ii) supervision consultant for monitoring the construction works should be immediately procured. Since value of the first consultancy will be very small, the Mission advised that these could be procured using Procurement Method of "Consultants Qualification" where qualification and experience of atleast three firms are to be considered. A list of such firms could be taken from other bank funded projects in Karnataka. Since SPV is yet to be staffed, PIU could take assistance from other projects or nominate staff within PIU during the transition phase. Bank would provide guidance as required to handle the procurement.

Contract packaging is the responsibility of the Borrower. The concept developed by the Consultant (CEPT, Ahmedabad) appointed by PIU was discussed and many suggestions emerged at the Presentation. Splitting the execution into too many packages would increase the transaction cost many fold and also cost of supervision. There would be too many interfaces and delay in one contract may have cascading delays. Thus there should be optimum number of packages commensurate with the

capacity at SPV and also contractors capacity. It was agreed that packing will be reviewed by PIU. The concerns such as excessive subcontracting, interim mile stones linking with stage wise LD etc could be addressed while developing the bidding documents.

Going by current thresholds in India, a civil works above US\$10 Million will require ICB; all packages in the preliminary plan are well below this and would follow NCB procedure. The prior review threshold will be set in the Procurement Plan but will be above US\$2 Million. However, irrespective of prior review threshold, Bank would review few contracts so that PIU is geared up.

It is not cleared from the Presentation how the cost of the packages have been worked out in the Preliminary Plan when BOQ is not ready and if any established schedule of rates are adopted. It would be advisable to know the assumptions made so that cost could be updated quickly at the bidding stage.

Mission requested for the time frame when the SPV will be operational with staffing in place and delegation for procurement decisions are firmed up. A procurement capacity assessment will be made by Bank and suitable risk mitigation measures will be discussed and agreed. Mission noted that PIU had deputed one Engineer for the recent work shop held in Delhi. Mission advised further training of SPV staff should be arranged.

**Project Implementation Schedule.** The Mission discussed the need for a clear implementation plan for the project identifying the interplay with between activities so proper scheduling and sequencing could be ensured along with timely delivery of the BRT. This would also help the PIU plan parallel procurement of packages which were unlinked, for example, off corridor activities such as terminals, depots, NMT, need not wait for road works to be completed. It was agreed that such a plan would be prepared and submitted by April 30.

**5. Environment Management.** The mission participated in deliberations with DULT, their consultant team, and KRDCCL officials in Bengaluru regarding the next steps for the possible inclusion of the BRTS project under SUTP.

EA Documentation: The discussion was based on the 1<sup>st</sup> draft of the EIA and EMPs for the depot related facilities and road related infrastructure. The mission provided overall comments on the EIA and EMP with a view to ensure that the documentation is in line with the provisions of the ESMF. It was also agreed that the PMC assisting the NPMU will also provide its comments on the EA documents by 23<sup>rd</sup> March 2012. The mission emphasized the need for clear documentation of the community consultations regarding environmental aspects, including strategy for communications during project implementation, proper analysis of the alternative material, lay-out design and specification of equipment with regard to their environmental impacts, and particularly on noise barriers. In terms of processing, the mission highlighted the need for public consultation on a draft version and endorsement of finalized ESMF as well as EIA and EMP. The DULT's proposed way forward with consultations in Hubli and Dharwad are in line with this. The mission was informed that Hubli-Dharwad is now a part of the pilot project by Planning Commission of India which is benchmarking Urban Services. Ambient Air Quality is an important consideration in this exercise and funds from GoI will be used for the purpose. Since this activity will proceed simultaneously with preparation/implementation of SUTP activities, the mission noted that there will be no separate consideration of ambient air quality related component for Bank support.

Road Infrastructure Improvement: The mission met with KRDCCL officials to discuss the way forward to ensure that the development of the road infrastructure is in line with the provisions of the ESMF. The EMP for road development was modified in line with the comments provided by the Bank previously and would now be shared with the Contractor to be entrusted the execution of the finalized design. It was



further agreed that in order to facilitate implementation of the EMP, the experience of the KPWD who are implementing the KSHIP2 project will be advantageously used, including the orientation/training of the KRDC staff and selected contractor. This will be finalized by 30<sup>th</sup> April 2012. In addition, the mission also highlighted the importance of getting dedicated staff to oversee implementation of environmental management measures during road construction as this activity will start much ahead of the other developments like depot/workshops.

**6. Social Safeguards.** The preparation of RAP for land acquisition and resettlement impacts in the proposed BRT in Hubli-Dharwar is in advance stage. 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. The mission was informed that follow-up consultations with the various impact groups will be initiated once the draft RAP is finalized and the entitlements matrix is agreed with the Bank. As a process of dissemination of RAP and entitlements, GoK is planned to organize the workshops both in Hubli and Dharwar where the details of RAP and entitlements will be presented followed by disclosures in SPV, DOLR and other relevant websites. The Bank Team clarified revised draft RAP after incorporating the Bank Team's comments satisfactorily will be submitted to the Regional Safeguards Office for formal review and endorsement. Following this, GOK (Principle Secretary, Urban Development) will approve the RAP and issue a Government Order.

9. The Bank Team has provided comments on the earlier version, which is being addressed. In response to the presentation made by GoK on the status of RAP, the Bank Team highlighted the gaps in the proposed entitlements for different impact categories. These include fixing of minimum compensation @ 150% of guideline values under consent award which is endorsed by GoK for the ongoing Highway project and other transitional allowances to various impact categories including the adequate economic rehabilitation measures for the affected shopkeepers and the reconstruction of affected community prosperities such as workshop places in the Government lands. As regards the compensation for structures, GOK clarified other mission that they are plan to negotiate these structure values with structures owners using the structures valuation as per PWD schedule rates as the minimum compensation. To speed up the land acquisition process, the GoK is also considering the use of land acquisition procedures available under Karnataka State Highway Act. The Bank team clarified that the payment of compensation prior to taking over of land is the key principle which need to follow irrespective of which ever land acquisition act is used to acquire the private lands. It was agreed that the revised RAP would be submitted by April 30. The Bank Team also discussed the need for early advertisement of Social safeguards Specialists to be brought into SPV to manage the environment and social impacts.

**5. Government Processing.** The Mission was informed that once the project DPR along with BRT SPV formation is approved by the Cabinet and a commitment letter had been sent to MoUD and the certificate of debt sustainability will be sent to DEA shortly. This is expected by the end of March 2012. The Mission was also informed that the SPV name had been approved and the application for its registration under the Company's Act would be submitted.

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

- Submit final DPR including sensitivity analysis in financial and economic analysis by April 30
- Submit cost estimates and broad financing pattern for the project by March 31

- Submit Procurement Plan by April 15
- Submit draft EIA and RAP by April 30
- Submit Project Implementation Plan by April 30
- Submit detailed designs and bidding documents for off corridor infrastructure by May 31
- Confirm constitution of BRT SPV by April 30, key manpower for SPV in place by July 31
- PMC assisting the PMU to provide its comments on the EA documents by March 23
- Way forward for development of road infrastructure to be finalized with KRDC officials by April 30
- Complete necessary internal approvals and DEA submissions by April 30

## Financial Management

The mission reviewed the adequacy of existing financial management arrangements and discussed in detail with PMU the internal and external audit reporting mechanism. The mission visited the office of PCMC and KSRTC<sup>2</sup> along with PMU.

1. **Budgeting:** It was informed by PMU that all the PIU's have made/proposed for 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 April 30 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. Mission team observed that the PIU's are preparing the IUFRR and other reports with minimal guidance from PMU.
3. **External Audit:** The audit report for FY 10-11 for all the PIU's have been submitted to the Bank. It was highlighted by way of audit review letter that the audit reports for Indore and Naya Raipur were not as per the terms of reference (ToR ) agreed with AG. However, in view the materiality of the expenditure incurred by the PIU's and in consideration that this is the first audit report, the Bank accepted the audit report submitted. The PMU has been requested to ensure that the subsequent audit reports are issued as per the agreed ToR failing which the reports would be considered unacceptable.

**Audit report for FY 11-12:** Mission team emphasized the need for early finalization of accounts and its timely submission to auditors for their review and issuance of audit report. PMU is required to co ordinate with all PIU's to ensure that AFS is submitted to the respective AG office before May 2012 and provide a copy of the same to the Bank. 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 December 2011 is complete. The reports will be compiled and put forth the audit committee in the month of April 2012. PMU should submit the report along with the minutes of the audit committee meeting to the Bank by April 30 2012. The internal auditors have been requested to provide their specific comments towards contract management related issues in their next report covering the quarter ending March 2012.
5. **Fund availability as on December 2011:** The present fund availability at various PIU is annexed below.

Particulars	Amount in million						
	Naya Raipur		Pimpri Chinchwad		Mysore	Indore	MoUD
	IBRD	GEF	IBRD	GEF	GEF	GEF	GEF
Initial Advance disbursed by Bank (USD/mn)	0.00	0.23	7.00	0.46	0.23	0.23	0.85
Initial Advance received by PIU (INR /mn)	0.00	10.87	328.65	21.74	10.77	10.87	40.26
Further reimbursement by Bank through IUFRR-till Sep 11.*	0.00	2.21	300.22	1.93	29.09	3.04	0

<sup>2</sup> Discussions pertaining to proposed PIU- Hubli Dharwad were also held at the office of KSRTC.

Funds received from other sources (GoI , State share, PIA share)	270.69	0	913.63	0	40.3	5.02	2.16
Project Expenditure incurred till Sep 11	248.62	3.45	1,023.29	1.48	37.23	5.52	0
Expenditure in q.e. Dec 11-Bank funded <sup>3</sup>	-	0.24	48.65	0.58	-	1.80	0.19
Expenditure in q.e. Dec 11-Non Bank funded	3.08	0.24	169.07	0.57	9.57	0.35	1.97
Fund availability with PIU (as at Dec 2011)	18.99	9.16	301.49	21.04	33.36	11.26	40.26

\*Includes claims in pipeline for HY Sep 11-reimbursed by Bank yet to be received by PIU.

As enumerated above, the PIU's have sufficient funds to meet their project related commitments. The Bank team informed the PMU that since the project follows a half yearly reimbursement cycle, due care should be taken by the PMU to ensure that expenditure is properly reflected in the books of accounts and is timely claimed from Bank.

#### **6. Financial Progress:**

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

Particulars	Mysore	Naya Raipur	Indore	Pimpri Chinchwad
Financial progress till Dec 11	15.43%	14.27%	1.60%	17.61%

Disbursement: As on March 19 2012, against IBRD an amount of USD 13.38 million (12.72 %) (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.

**7. Reporting:** The submission of IUFRR is timely. The half yearly IUFRR for September 2011 stands disbursed. The next IUFRR submission for the half year ended March 2012 is due by May 15 2012.

#### **Discussions on Hubli-Dharwad:**

The proceedings of Government of Karnataka (GoK) dated January 20 2012 on bus rapid transport system (BRTS) between Hubli and Dharwad cities provides state government approval towards:

- Implementation of project at an estimated cost of INR 4520 million.
- Availing an assistance of USD 47 million as loan and USD 1.9 million as grant.
- Acquisition of land required for the project.
- Payment of compensation to land losers and payment of rehabilitation cost
- Setting up a special purpose vehicle (SPV) under Companies Act for implementation of the project with
  - Authorized share capital of INR 200 million, 70% of which will be contributed by GoK and balance shared between Hubli Dharwad Municipal Corporation (HDMC), Hubli Dharwad Urban Development Authority (HDUDA), and North West Karnataka Road Transport Corporation (NWKRTC).
  - The structure of Board of Directors (headed by Commissioner, Directorate of Urban Land Transport) and organizational structure of Company has been specified.

During the present mission, the Bank team was updated that the SPV is in its preparation phase and is likely to get registered as company within a fortnight (ie by March 30 2012).

During this mission, the Bank team shared with the officials representing Hubli, the broad contours of financial management i.e. Budgeting, Accounting, Auditing, Internal controls mechanism, Staffing. During discussion, the questionnaire for FM assessment was also shared. Since the Company is in its

<sup>3</sup> The expenditure for December 2011 will be included in half yearly claim covering the period Oct 11 –Mar 12.

incorporation stage and the FM personnel is yet to be deputed/ hired, it was agreed that the duly filed questionnaire will be submitted by May 31 2012. Once the company is incorporated the Bank would carry the FM assessment and agree on an action plan to be carried out by the company.

The costing proposed under GEF is USD 1.9 million and under IBRD is as follows:

S.No.	Particulars	Project Cost (INR/ million)	GoK	IBRD
1.	Works	1916.20	850.00	1066.20
2.	Goods	2014.30	931.00	1083.30
3.	Contingency (15%)	589.57	267.15	322.43
	Total	4520.07	2048.15	2471.93

### **Discussions on KSRTC:**

Discussions were held with FM counterparts and mission noted that the FM arrangements are sustained. The RE for FY 11-12 is INR 164.21 million as against BE of INR 208.09 million. The budget provisioning for FY 12- 13 has been requested to the extent of INR 47.67 million. It was apprised to the mission that the PIU is not facing any concern in terms of timeliness of receipt of funds.

KSRTC requested the team to consider additional allocation of INR 20 million for activities pertaining to 'monitoring and evaluation' which is being evaluated by the team.

### **Discussions on Pimpri Chinchwad:**

The Mission examined the status of FM actions agreed during the last mission in November 2011 and noted that the improvements in FM arrangements are sustained and continuous efforts are being made by PCMC to meet Bank's FM requirements.

Staffing: On staffing at PCMC, the Bank team had highlighted during the previous mission that the FM nodal person (Mr. Karanjpe) is due for superannuation in 2012. Additionally the accounts personnel (deputy accountant/ head clerk) trained on project related FM aspects are also due for transfers. It was reiterated that key personnel should be maintained or else appointment/ deputation of suitable person be made for sustaining effective FM arrangements at PIU.

Budget: Due to elections, the municipal corporation budget has not been approved by State government. This is now under process. The approved copy of budget will be provided to Bank by April 30 2012. It was also apprised that the RE for FY 10-11 stood at INR 1064.20 million as against BE of INR 2583.30 million. The proposed budget for FY 12-13 is INR 1090 million.

Contract Progress: As per the draft internal audit report majority of contracts are running behind schedule and are facing issues due to land acquisition. To ensure that the project objectives are met, it is important that contract for the entire package (and not merely the bank funded contracts) is completed as per schedule.

### **1. Kalewadi Phata to Dehu Alandi Road Pune**

Package No	Name of work	Bank funded / Non bank funded	Name of Contractor	Contract start date	Contract end date	Remarks
I	Kalewadi Phata to MM school	Non Bank funded	M/S Jitendra Singh	Aug 25 2009	Feb 24 2011	Revised end date: Dec 31 2011. Project delayed. Land acquisition issues in some parts
II	MM school to Pawana River	Non Bank funded	M/S PBA infrastructures Ltd	Dec 4 2010	Jun 13 2012	Major part held due to issues of land acquisition.
III	Empire Estate Flyover	Bank funded	M/S Gammon India Ltd	Apr 6 2011	Oct 5 2013	Work in progress.
IV	Auto cluster to KSB chowk	Non Bank funded	Tender yet to be invited			

V	KSB chock to Dehu Alandi	Non Bank funded	M/S Thakur Infraprojects Pvt Ltd	Aug 25 2009	Feb 24 2011	Project delayed. Land acquisition issues in some parts.
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## 2. Nashik Phata to Wakad

Package No	Name of work	Bank funded / Non bank funded	Name of Contractor	Contract start date	Contract end date	Remarks
I	Nasik Phata Flyover	Bank funded	M/S B.G. Shirke Construction Pvt. Ltd	July 12 2010	Jan 11 2013	Work in progress.
II	Kaspati Vasti	Non Bank funded	M/S Jai Kumar	Aug 25 2009	Feb 24 2011	Ext under consideration. Project delayed. Land acquisition issues in some parts.
III	Kaspati Vasti to Wakad	Non Bank funded	M/S Ajwani Infrastructure Pvt Ltd	Aug 25 2009	Feb 24 2011	Revised end date: Dec 31 2011. Project delayed. Land acquisition issues in some parts.

### **Project Rating:**

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

<b>Action points</b>	<b>By whom</b>	<b>By when</b>
Copy of State budget provisioning PIU's share for FY 12-13	PMU	April 30 2012
Submission of minutes of audit committee and IA report	PMU	April 30 2012
Copy of letter submitting annual financial statements by PIU's to the auditors	PMU	May 31 2012
Duly filed FM questionnaire for Hubli-Dharwad	PMU	May 31 2012

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

**Amount in INR/ Million**

Funding Agency	Karnataka - Mysore			Chattisgarh - Naya Raipur			Madhya Pradesh - Indore			Maharashtra - PimpriChinchwad		
	Total cost	Receipts	Exp. till Dec 11	Total cost	Receipts	Exp. till Dec 11	Total cost	Receipts	Exp. till Dec 11	Total cost	Receipts	Exp. till Dec 11
GoI	124.77	29.41	13.39	344.00	0.11	0.76	292.80	0	0	1749.00	426.02	411.29
State Govt.	21.50	3.67	4.62	37.00	7.10	-	27.50	0	0	852.10	213.01	205.64
PIA	65.87	7.22	-	650.73	259.68	252.90	67.70	5.02	2.83	2273.98	274.29	276.88
IBRD (Loan)	0	-	-	669.00	-	-	0	0	0	2097.70	628.87	348.52
GEF (Grant)	91.20	39.86	28.79	91.20	14.64	1.96	91.20	13.91	4.84	91.20	23.67	1.32
<b>Total</b>	<b>303.34</b>	<b>80.15</b>	<b>46.80</b>	<b>1791.93</b>	<b>281.53</b>	<b>255.62</b>	<b>479.20</b>	<b>18.93</b>	<b>7.67</b>	<b>7063.98</b>	<b>1566.17</b>	<b>1243.64</b>
Financial progress			<b>15.43%</b>			<b>14.27%</b>			<b>1.60%</b>			<b>17.61%</b>

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