

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

Second Implementation Support Mission (February 1-15, 2011)

Aide Memoire

I. Introduction

1. A World Bank mission¹ 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 Naya Raipur, Pune, Pimpri-Chinchwad (SUTP) and met with Indore and Mysore PIUs in Delhi (GEF-SUTP). During the field visits, 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 is to review the overall implementation progress of the project and effectiveness of implementation arrangements including:

- Review the progress on the Capacity Building Component
- **Pimpri-Chinchwad:** Review (i) project progress; (ii) passenger access designs and site visit, (iii) Technical Assistance, (iv) Nashik Phata site visit, (v) BRT Service Plan (vi) Social & Environment matters
- **Naya Raipur:** Review Project Detailed Progress Report (DPR); BRT Service Plan; Depot/Terminal/ Bus Shelter Designs; SIA and EIA; status of TA activities
- **Pune:** Review (i) project progress; (ii) discuss way forward;
- **Mysore and Indore** – Project update
- **Hubli-Dharwad** - Review project proposals and undertake site visits
- **Jaipur / Jodhpur / Kota** – Review project proposals with Government of Rajasthan
- Review outstanding FM and Procurement matters.

2. In addition to sharing the mission findings with the Project Management Unit (PMU), the mission also de-briefed Mr. Nilaya Mitash, Director (DEA), on March 3, 2011.

3. The summary of Mission findings includes the following:

- Progress in Pimpri-Chinchwad, Mysore and Indore on track
- Inadequate progress in Pune and clear timeline of March 15, 2011, for reverting with any further proposals, failing which cancellation of funds to be considered.
- Need to expedite DPR finalization and detailed designs for key infrastructure in Naya Raipur prior to implementation.
- Priority attention to pending safeguard issues in Pimpri-Chinchwad
- Need for a review of existing systems and processes by the PMU for improving response times and track city progress on agreed actions.

¹The mission consisted of Nupur Gupta (Task Leader), Om Prakash Agarwal (Sr. Urban Transport Specialist), Sujit Das (Sr. Transport Engineer), Gaurav Joshi (Environment Specialist), Debabrata Chakraborti (Sr. Procurement Specialist), S. Krishnamurthy (Financial Management Specialist), Neha Dhoundiyal (Financial Management Analyst), Puneet Kapoor (FM-Consultant) Venkata Rao Bayana (Social Dev. Specialist – Consultant), Sam Zimmerman (Public Transport Specialist – Consultant) and Krishnan Srinivasan (Governance Specialist – Consultant).

- Continuing delay in provisioning for Indore Project in state budget and entrustment of audit to CAG for PMU in MoUD.
- Review of proposals from Government of Karnataka and Rajasthan for participation in SUTP and next steps agreed.

II. Key Project Data

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

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
	Ensure budget provision in FY10-11 in State Budget	Mar 31	Indore/ MP
	Finalise procurement plans	Mar 31	Pimpri/ Naya Raipur Indore/ Mysore
	Revision of the M&E Chapter of Operations Manual	Mar 31	PMU
	Implementation Arrangements and date finalized for Young Leaders Program	Apr 30	PMU
	Finalize Audit arrangement with CAG	Mar 31	PMU
	Organise Annual Review Event	May	MoUD/ PMU
	Strengthening Project Management	Mar 31	MoUD/ PMU
	Submit QPR and IUFRR for quarter ending Dec 31	Feb 15	PMU, Pimpri/ Naya Raipur / Indore/ Mysore
	Initiate procurement of Component 1B activities	Mar 31	PMU
	Population of content on SUTP website	Apr 30	PMU
	Submit status update on key agreed actions	Mar 7, Apr 7, May 7	PMU
	Submit designs and EIA/SIA for passenger interchanges	Apr 30	Pimpri-Chinchwad
	Submit proposal for utilisation of funds	Apr 30	
	Share BRT Implementation Schedule	Mar 31	
	Submit draft final EIA	Feb 28	
	Finalise microplans	Mar 15	
	Complete land acquisition	Apr 30	
	Complete disbursement of assistance to THs	Apr 30	
	Project Disclosure on PCMC website	Mar 31	
	Initiate procurement of M&E	Mar 31	
	Submit ToRs for TA activities	Mar 31	
	Submit final Proposals for SUTP and or restructuring/ cancellation proposal	Mar 31	Pune
	Submit updated DPR	Mar 15	Naya Raipur
	Submit Project Implementation Schedule	Mar 15	
	Submit TER for NMT DPR	Apr 30	

	Actions to be Completed	By when	By whom
	Submit proposal for Designs for Bus Depot, terminals & shelters	Feb 28	
	Submit designs for depot, terminals & shelters	May 31	
	Submit revised EIA / SIA/ RAP	Mar 15	
	Submit draft RFP for ToD Study	Apr 15	
	Submit draft EoI for Regional Mobility Study	Mar 31	
	Submit Cost Analysis	Feb 28	Indore
	Submit Final Designs Report	Apr 30	
	Submit Implementation Schedule	Mar 31	
	Submit draft ToRs for BRT Accessibility	Feb 15	
	Submit revised M&E report	Feb 15	
	Ensure additional staff for AICTSL	Mar 31	
	Submit draft RFP for ITS PMC	Feb. 15	Mysore
	Submit EoI for M&E	Feb 18	
	Submit draft final ToRs for bus operations and service analysis	Mar 31	
	Submit Revised Project Implementation Schedule	Feb 18	

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). As the project age is less than a year, it is early to assess satisfaction with the PDO. However, given the progress towards preparation and implementation of sustainable urban transport projects in the project cities 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 is proceeding well with the ToRs for Component 1B finalised for four of the five activities and procurement to be initiated shortly.

7. In regard to Component 2 on the City Demonstration Projects, the Phase 1 cities (Pimpri-Chinchwad, Mysore, and Indore) are on track with their first year procurement concluded or in final stages. Among Phase 2 cities, the progress in Naya Raipur has slowed however NRDA is making efforts to expedite DPR finalization and detailed designs. Pune, on the other hand, continues to be a poor performer. No concrete proposals could be shortlisted for the Public Transport Component even after almost a year and a half of discussions. On the Non Motorised Transport Component, PMC will revert on the likelihood of taking up projects in addition to passenger access improvements at four locations. *Therefore, the Mission proposes to downgrade the risk ratings for Component 2 to moderately satisfactory.*

Component 1B

Implementation Progress: **Satisfactory**

8. On Component 1B, the Bank held discussions with PMU/ PMC on the agreed activities to be undertaken under the sub-component. The status of each activity is indicated below.

Sl No.	Activity	Tentative Amount (Rs)	Status
1	Development of a structure and an operations manual for UMTA; Business Plan for Urban Transport Fund	200,00,000	ToR finalized and procurement to be initiated
2	Development of a standard architecture and plan for ITS and Traffic Management Center	200,00,000	ToR finalized and procurement to be initiated
3	Development of a model NMT action plan, bike sharing plan and TOD Guidelines	100,00,000	ToR finalized and procurement to be initiated
4	Development of a Research Program	30,00,000 + 570,00,000	ToR finalized and procurement to be initiated. This study would use about Rs. 30,00,000. An amount of Rs 570,00,000 has been allocated as initial amount to pay for the actual research
5	GHG Emissions reduction assessment	100,00,000	Draft TOR shared and under discussion
6	Young Leaders Program	550,00,000	A formal concept and indicative cost estimates have been shared with the PMU and they will revert with detailed costing and timeline for launching the program in conjunction with CEPT who as a Centre of Excellence is proposed to implement it.
7	(Proposed) Comprehensive Public Transport Plan for Jodhpur	1,50,00,000	Draft ToRs to be shared by Government of Rajasthan for the proposed activity
8	New items to be decided	17,00,00,000	
	TOTAL	36,00,00,000	

9. The progress on this component is rated as satisfactory. It was agreed that the procurement for activities #1-4 to be initiated at the earliest and no later than Feb 28, 2011. The ToR for #5 to be finalized and procurement initiated by March 31, 2011, and implementation arrangements put in place and date for Young Leaders Program Launch finalized by 30 April 2011. PMU agreed that as part of the subhead 'preparation and implementation support to cities for sustainable urban transport projects' under Component 1B the preparatory study for Jodhpur city could be considered and will be put up for approval.

Component 2: City Demonstration Projects
Implementation Progress: **Moderately Satisfactory**

Project Rating: Implementation Progress	
Pimpri	S
Naya Raipur	S
Pune	MU
Mysore	S
Indore	S
Overall Project	MS

(i) *Pimpri-Chinchwad*: The city is making good progress on project implementation. The first contract for the Nashik-Phata Flyover which was awarded last year has made a 16% financial progress (compared to a target of 20%), and the contract for the second major grade separator at Empire Estate along the Kalewadi to Dehu-Alandi Road BRT Corridor is in final stages of contract award. Sites for proposed improvements for passenger access to the BRT stations have been approved for further preparation. Several TA activities have been identified and agreed to be initiated under the GEF grant.

(ii) *Naya Raipur*: The updated BRT Services Plan was shared and found to be broadly in order. However, the DPR finalization and preparation of detailed designs for terminals, depots and bus shelters are delayed and NRDA is taking prompt action to make up for the delay. The procurement for Transit-oriented-Development study and the Regional Mobility Plan is likely to commence shortly.

(iii) *Pune*: The lack of progress in Pune is a cause of serious concern to the Mission. While the PMC finally obtained approval from its Governing Council for the 8 underpasses for improved passenger access to BRT stations and skywalks, the mission was informed that it was only possible to proceed with 4 of the 8 locations for underpasses and that the skywalk projects had already been bid out on PPP basis by the PMC. In the absence of reasonable progress, the progress rating is downgraded to moderately unsatisfactory. Unless acceptable proposals are presented and actions taken towards their implementation and / or the project is cancelled / restructured the overall project rating will not change.

(iv) *Mysore*: KSRTC submitted its bid evaluation report for ITS equipment for review and no objection during the Mission. The procurement of the Project Management Consultants is somewhat behind schedule and must be expedited. The procurement of Monitoring and Evaluation Consultants has also been initiated.

(v) *Indore*: The Project Management Consultants for the ITS component are assisting AICTSL in the preparation of detailed design for ITS components.

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:

- *Lack of progress in Pune*. The Mission was informed that PMC has finally obtained its Governing Councils approval for the following projects (i) 8 underpasses for improved passenger access to BRT stations; (ii) skywalks; (iii) motorway tunnels; and (iv) a flyover. The mission clarified that the latter two proposals were not in line with the principles of SUTP. PMC informed the mission that (i) only 4 of the 8 underpasses could be undertaken as either flyover or underpass works had been initiated on the remaining intersections and (ii) the skywalks had already been tendered out on PPP basis. Proceeding with merely 4 underpasses without considering a more comprehensive treatment of passenger access on the entire BRT corridor would be contrary to the principles of SUTP. The overall project rating has as a result been downgraded to Moderately Satisfactory. PMC shall revert on any further proposals for the project by March 31, 2011, and show satisfactory progress in implementation of the same for the project rating of 'Satisfactory' to be reinstated, failing which the funds shall have to be cancelled or reallocated before a 'Satisfactory' rating for SUTP shall be possible.

- *PIU / PMU Capacity Strengthening.* The capacity of the cities in urban transport planning, safeguards, FM and procurement is weak and they will require significant handholding from the PMU/ PMC as well as the Bank in addition to strengthening their own PIUs. Several iterations and long delays in finalization of documents and completion of key actions were observed. The Mission discussed various options with the PMU/ PMC for improving response times and better managing the handholding process and the PMU will revert to the Bank on the same by April 30, 2011.
- *Delays in the Finalisation of the Environment Impact Assessment (EIA) and other safeguard matters in Pimpri-Chinchwad.* The continuing delays over the last several missions in finalizing the EIA is a matter of deep concern. PCMC shall submit the final draft for Banks review no later than February 28, 2011. The slow implementation of the RAP in terms of preparation of micro plans and disbursement of compensation to titleholders also needs to be addressed expeditiously.
- *Inadequacy of Financial Management Arrangements.* As per the legal requirement each PIU including MoUD should have made budgetary provision with respect to project cost in FY2010-11 within reasonable time. Substantial time (nearly 9 months) has elapsed since the project effectiveness (May 3, 2010) with no budget provisioning even in the second supplementary. The mission expressed its concern over long pendency of this issue and advised the project that Bank will be constrained for withholding disbursements beyond March 31, 2011 to the PIU pending resolution on provisioning of budget. The entrustment of audit needs to be obtained for the PMU at MoUD. It was agreed that PMU will ensure that the same is obtained by March 31, 2011 so that the project audit is included by the Accountant General in its annual audit plan for the next year.

VII. Safeguards – Environment and Social Management

Project Rating: Safeguards	
Pimpri	MU
Naya Raipur	S
Pune	-
Mysore	S
Indore	S
Overall Project	MS

11. **Environment Management.** The mission visited Pimpri-Chinchwad during the mission and met with the implementing agency officials in Pimpri-Chinchwad and Naya Raipur, National PMU and its PMC, and other stakeholders such as the consultants hired by the implementing cities and reviewed the respective sub-projects.

(i) *Pimpri – Chinchwad:* The mission expressed its deep concern and discussed again the changes and additions that are required for the finalization of the EIA which have been under discussions for last several missions with PCMC officials and PMU-PMC. It also discussed and has agreed that the EIA will be available for Bank review by February 28, 2011. The mission urges all concerned to attend to this as a priority action since the disclosure of this document is a very important milestone.

The mission also reviewed with the PCMC officials a draft format prepared by the PMU-PMC to monitor the progress on environmental management across the various contracts for the two BRT corridors. The mission urged PCMC and PMU to ensure that this information started reaching the Bank team from the March 2011 QPR. During the site visit to the Contractors' camp and work-site, the mission was pleased to note that the areas of improvement identified on the Contractors' site at the Bank funded grade separator were all attended. It also suggested that the PMU- PMC start developing a compendium of good practices using this and such other initiatives as they develop during SUTP implementation. The mission also visited temporary accommodation site for the project affected persons. It noted that the necessary services like electricity, water supply, and sanitation were being provided in the site. It urged the PCMC officers to ensure that the initial teething troubles such as water-supply, provision of segregated toilets for ladies and gents, etc. were taken care of.

(ii) *Naya Raipur*: The EA documentation for Raipur is in advanced stage of completion. The mission advised that the final version should be quickly submitted for review after adding material on the analysis of alternatives, and consultations with persons near the depots. It was agreed that this would be completed by March 15, 2011.

12. **Social Management.** The Mission noted the progress on social management issues.

(i) *Pimpri – Chinchwad*: The overall progress on the R&R aspects is moderately satisfactory. The RAP for two BRTS corridors is finalized and disclosed both on Bank and PCMC web sites and 157 residential squatters have been relocated into transit relocation camps. PCMC however is lagging behind on the implementation of the RAP. The coordination between Town Planning and Slum Improvement Departments requires improvement for effective results.

The following have been agreed (a) PCMC will shift the transit camp PAPs into permanent houses in the year 2012; (b) PCMC will pursue with the Land (Revenue) Department and expedite the acquisition before end April 2011; (c) PCMC will finalize the draft micro plans before end March 15, 2011 and implement the RAP; (d) Complete R&R activities for the titleholders' whose lands have already been acquired before end April 2011; (e) Prepare supplementary RAP for Nashik-phata flyover PAPs; (f) Complete social assessment and also the RAP, as required, for the proposed pedestrian walkways.

(ii) *Naya Raipur*: The revised SA and RAP incorporating Mission comments will be submitted to the Bank before March 15, 2011 and will be disclosed on NRDA web site before March 31, 2011. It is also agreed that the NRDA will complete the discussions with the Agricultural University on relocation of staff quarters located on the site provided by the University and relocate the quarters before the end April 2011.

VIII. Procurement, Expenditures and Disbursement Plans

13. **Procurement:** The mission was briefed on the status of key action areas identified in the previous mission.

14. *Strengthening Procurement staff in PMU*: The mission was informed that the PMC had brought on board an additional Procurement staff conversant with Bank Guidelines. However, the mission noted that the new Procurement staff did not participate in the mission and the pace of processing of procurement activities continues to be slow.

Project Rating: Procurement	
Pimpri	MS
Naya Raipur	MS
Pune	-
Mysore	MS
Indore	MS
PMU-MoUD	MS
Overall Project	MS

15. **Financial Management:** As part of the mission, the FM team visited Pimpri-Chinchwad Municipal Corporation (PCMC) and for all other agencies discussed the current status with the implementing agencies and PMU in New Delhi. The mission discussed with the PMU regarding the FM rating which is being pegged as *Moderately Unsatisfactory (MU)* due to pending actions from the last mission like the provision of budget for Indore, Audit entrustment for PMU (MOUD) and PCMC which has been pending for more than nine months. The rating would be suitably reviewed in the next mission. During the mission following action points were discussed and agreed:

Project Rating: Financial Management	
Pimpri	MS
Naya Raipur	MS
Pune	-
Mysore	MS
Indore	MU
PMU – MoUD	MU
Overall Project	MU

(a) *Indore budgeting issue:* As per the legal requirement each PIU including MoUD should have made budgetary provision with respect to project cost in FY2010-11 within reasonable time. Substantial time (nearly 9 months) has elapsed since the project effectiveness (May 3, 2010) with no budget provisioning even in the second supplementary. The issue was to be addressed before December 31st 2010. The PMU and AICTSL shared a letter from the state government dated January 31, 2011, specifying that necessary budget provision for the project is being made in the third supplementary of state (Madhya Pradesh) budget for FY 2010-11. However, the mission expressed its concern over long pendency of this issue. The project was advised that the Bank will be constrained for with-holding disbursements beyond March 31, 2011 to the PIU pending resolution on provisioning of budget. The PIU also needs to ensure that budget provisioning is made in State budget for FY 2011-12.

(b) *IUFR:* The IUFR for the half year ended September 2010 has been approved for an expenditure of INR 85.19 million against IBRD and INR 5.53 million against GEF. The project needs to submit claim to CAAA. The project apprised the mission that IUFR for quarter ending December 2010 for reporting purpose (disbursement on the basis of six monthly IUFR, next to be due by March 2011) will be submitted by February 15, 2011. Project should henceforth submit the trial balance along with the IUFR.

(c) *Fund flow issues:* The mission repeated their concern that the funds released by the bank are not being transferred by the state to the implementing agencies on a timely basis. The mission team was apprised that the systems at PIU have been streamlined to ensure timely fund flow with respect to disbursements made by Bank. It was agreed that the PMU needs to keep a close

watch on fund movement and appraise the Bank in case there is an abnormal delay in the same against the recent disbursement.

(d) *Entrustment of audit:* The entrustment of audit needs to be obtained for PMU in MoUD. It was agreed that PMU will ensure that the same is obtained by March 31, 2011 so that the project audit is included by the Accountant General in its annual audit plan for the next year. The Mission also discussed the status of entrustment of project audit of PCMC to the Accountant General. It was informed that the entrustment has been approved by the Government and would be effective upon issue of gazette notification. It was agreed that PMU and PCMC would liaise with the Government of Maharashtra and expedite the issue of the gazette notification latest by March 31, 2011 so that the project audit is included by the Accountant General Mumbai in its annual audit plan for the next year. The Mission also advised that the audit of project financial statements would cover the transactions for the entire project including Bank and non-Bank funded packages. PIU needs to ensure that formal approval is received by March 31, 2011

(e) *Internal Audit:* PMU agreed to provide the full Internal Audit Report of PCMC for the quarter ended 30th September, 2011 by 28 February, 2011. Field work in respect of Internal Audit for the quarter ended 31st December, 2010 has been completed and the report is awaited.

(f) *PCMC accounting:* The Mission was apprised that the project transactions are neither entered in the main accounting records of the entity nor are included in the audited financial statements of the entity. The Mission opines that this is not a sound practice as the loan/grant as well as the underlying asset should be accounted for in the entity's accounting records/included in their financial statements in accordance with accounting standards generally accepted in India, as the project is an integral part of PCMC. The issue was discussed with PMU and was agreed that PMU would bring this to the attention of the top management of PCMC and advise them on the appropriate accounting/reporting treatment.

(g) PCMC needs to appoint a nodal person responsible for the project financial management activities

Action Plan

	Action Points	By whom	By when
1.	Project costs to be provided in the States budget.	Madhya Pradesh - State through Indore City Transport Services Limited.	March 31, 2011
2.	Proposal of project audit to C&AG offices in the respective states	Maharashtra-Pimpri-Chinchwad Municipal Corporation, PMU (MoUD)	March 31, 2011
3.	Accounting and auditing with respect to JNNURM funds	PMU and PCMC.	March 31, 2011
4.	IUFR for quarter ending Dec 2010	MoUD – Consolidated IUFR	February 15, 2011
5.	TALLY training -PCMC	PMU and PCMC	April 30, 2011

IX. Disclosure and Governance

16. During the recent mission, the team interacted with officials of NRDA, AICTSL, KSRTC and PCMC to assess the progress on governance related aspects with specific reference to disclosure and complaint handling mechanisms.

17. The Mission finds that, with the exception of Pimpri all other cities have made good progress with disclosure of the SUTP project on their websites.

18. The Mission was pleased to note the further improvements to the India SUTP website (www.sutpindia.com) maintained by the PMU. In addition to full project description and links to city websites, several documents have also been disclosed on the website. The Mission commended the PMU and PMC on initiating the Project Newsletter. The Mission discussed with the PMU and PMC the need to proactively disclose agreed city documents on the website.

IX. Project Management

19. *Project Management:* The Mission observed that project management needed to be tightened to improve responsiveness to city PIUs and timely identification of implementation issues. In order to address the delays observed in finalization and processing of various documents and key actions identified, the PMU shall provide an update on a monthly basis (first week of each month) on the status of the key agreed actions so that slippages can be identified and addressed early on.

20. *Quarterly Progress Reports (QPR) and IUFR:* QPR is the reporting format to inform the Bank of the project progress. The cities are still not completely familiar with filling these out and PMU/PMC are advised to provide necessary guidance in addition to ensuring timely submission of these documents. The QPRs and IUFRs for December 2010 must be submitted by February 15, 2011.

21. *Performance Criteria for Project Cities:* During Project negotiations it had been agreed that Performance Criteria would be developed by MoUD and the Bank to evaluate the performance of cities and these could then be used to determine the reallocation of funds at the end of the year, if any. The Mission discussed the matter and it has been agreed that progress against key actions agreed for each of the cities will be used to rate performance of cities. An Annual Project Review meeting shall be held in May 2011 by PMU to review performance status. In addition, it will also be an opportunity for cities to interact and various capacity building events to be held.

XI. New State/City Proposals for GEF SUTP

22. The Mission reviewed active proposals from Government of Karnataka and Rajasthan. The details of the discussion are in Annex 7.

- (a) *Hubli-Dharwad:* The Mission visited Hubli-Dharwad following initial discussions in Delhi with PMU and the Government of Karnataka (GoK) on their proposal for participation in the India SUTP. The city proposes a Bus Rapid Transit system along the highly trafficked 20 km corridor connecting the twin cities of Hubli and Dharwad. The Mission agrees that the proposed project could have a significant impact on improving mobility between the cities and the overall development in the area. GoK has initiated the preparation of a detailed project report (DPR) to flesh out various aspects including project scope, size and phasing which should be available for review by early May, 2011. The Mission emphasized the importance of paying close attention to the institutional arrangements for the proposed BRT.
- (b) *Rajasthan:* The Government of Rajasthan (GoR) has expressed interest in the participation of three cities Jaipur, Jodhpur and Kota under India SUTP. Following preliminary discussions and feedback in the last mission, they met with the Mission to discuss their revised proposals. The state proposes the following projects (i) decongestion and pedestrianization of the Walled City (Old City) in Jaipur; (ii) city bus transport in Jodhpur; and (iii) city bus transport in Kota. It was agreed that the Jaipur proposal had merit with strong demonstrational impact for the city. Accordingly, GoR is initiating a DPR for the project and expects it to have a draft available by June 2011. For Jodhpur, a study on comprehensive public transport plan is proposed under Component IB. GoR shall meanwhile initiate a Comprehensive Mobility Plan for Kota.

XI. Next Mission for Bank's Implementation support

23. An interim mission will be taken up 23-28 May 2011.

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List of Officials Met

1. Mr. A. K. Jain, Advisor, SUTP Project Management Unit, MoUD
2. Mr. I. C. Sharma, National Project Manager, SUTP Project Management Unit, MoUD
3. Ms. Rana, Asst Project Manager, SUTP PMU. MoUD

4. Mr. Nilaya Mitash, Director, Department of Economic Affairs (DEA), MoF
5. Mr. Soumya Chattopadhyay, Under Secretary, DEA, MoF

6. Mr. Mahesh Zagade, Commissioner, Pune Municipal Corporation
7. Mr. Vivek Kharwadkar, Project Manager, Pune Municipal Corporation

8. Mr. Asheesh Sharma, Commissioner, Pimpri Chinchwad Municipal Corporation
9. Mr. Eknath Ugile, City Engineer, Pimpri Chinchwad Municipal Corporation
10. Mr. Kamble, Joint City Engineer, Pimpri Chinchwad Municipal Corporation

11. Mr. S.S. Bajaj, CEO, NRDA
12. Mr. L.K. Panigrahi, Chief Project Manager, SUTP, NRDA

13. Mr. Vivek Shrotriya, CEO, AICTSL

14. Mr. C. G. Anand, CGM, KSRTC

15. Ms. V. Manjula, Commissioner, Directorate of Urban Land Transport, Govt. of Karnataka
16. Dr. K. V. Thrilok Chandra, Commissioner, Hubli-Dharwad Municipal Corporation
17. Mr. Hemraju, Managing Director, North-West KRTCL

18. Mr. Gurdial Singh Sandhu, Principal Secretary, Dept. of Urban Development, Housing & Local Self Government, Government of Rajasthan.
19. Mr. Sancheti, Town Planner, Government of Rajasthan

20. Mr. Rajendra Nath, Team Leader, Project Management Consultants, PMU
21. Mr. Vijay Kowali, Co-ordinator, Project Management Consultants, PMU
22. Ms. Surabhi, Transport Planner, Project Management Consultants, PMU

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Pimpri-Chinchwad

1. A World Bank mission² visited Pimpri-Chinchwad on February 4-5, 2011 to discuss with the Municipal Corporation (PCMC) the implementation of the Pimpri-Chinchwad component of the Sustainable Urban Transport Program (SUTP). The mission met the Commissioner of PCMC, Mr. Asheesh Sharma and his staff and consultants and ITDP which is assisting PCMC with the BRT Project. In Pune, it also had conversations with representatives of the Pune Municipal Corporation.

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,
- (iii) 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. **Corridor 3: Interchange at Nashik Phata:** The mission was pleased to note that PCMC has modified the interchange designs by placing the BRT corridor along the central median of the Flyover and also made provisions for bus passenger movement between the ground level and the bus station on the Flyover. Moving the transit way and stations to the median as well as the addition of "mezzanine" levels will definitely support much safer, more effective transit operations while maintaining good pedestrian access. The combination of the mezzanines and connecting walkways should also provide a safe pedestrian crossing over this complex and dangerous area.

² Comprising Nupur Gupta (Task Team Leader), Sujit Das (Engineer) Venkata Rao Bayana (Social Development Specialist), Gaurav D. Joshi (Environmental Specialist), Sam Zimmerman (Public Transport Consultant).

7. The mission visited the works site. This Design-Build Lump Sum works contract started in July 2010. The progress is found to be satisfactory. The progress until end-January 2011 has been about 16% as against the target of 20% in 22% of the contract period elapsed. The mobilization and the arrangements made for these works are satisfactory. The Executive Engineer PCMC is the 'Engineer' for administration of the works contract, and he is being supported by a consultant's team who are also reviewing all the designs and drawings being prepared by the Contractor.

8. There was some delay in handing over of some parts of the land as per the contract requirements. The land required for Ramp-1 and -2 and Loop-1 are not fully available until now, which requires resettlement of a large number of shops. PCMC informed the mission that it expects all these land to be available to the Contractor by end-March/early April 2011. The changes in the overall design as mentioned above have also affected the progress of detailed designs and drawings being prepared by the Contractor. It is currently expected that the Contractor should be able to complete all works by the scheduled completion in January 2013.

9. The mission specifically recommended to PCMC to critically look into all the safety aspects while finalizing the drawings as well as to the safety during construction.

10. **Corridor 4: Interchange at Empire State Junction:** PCMC had submitted the Bid Evaluation Report for the structure and no objection for the same was communicated during the mission. PCMC shall revert with a signed copy of the contract and checklist for issuance of the WBR number.

11. **Traffic Safety Audit:** Previous missions noted that some designs – both of the two interchanges and of the BRT-cum road projects – could be improved to provide enhanced pedestrian and mixed-traffic safety. While PCMC has improved the designs of the Nashik Phata grade separator the Mission recommends that a full safety audit be undertaken both for the detailed drawings and safety during construction.

12. **BRT access and other pedestrian improvements on Corridors 1 and 2:** The recently re-constructed NH-4 corridor and Aundh-Rawet Road will include BRT services (which are expected to start operations within the next 12 months), and will require safe and convenient pedestrian crossing facilities. The mission wants to commend the attention paid to providing pedestrian access to stations along the Pune-Mumbai Highway BRT Line. It supports the addition of raised sidewalks along the service road to access stations offset from the intersections provided that barriers are used to protect users from traffic. It also supports the addition of "speed tables" or "sleeping policemen" to provide a safe crossing for all intersection legs where there are stations. It might also be desirable to provide a pedestrian crossing signal phase at the speed table, synchronized with the one at the intersection itself to afford further protection.

13. PCMC proposes to improve the pedestrian infrastructure for safe movement of passengers between the BRT stations on NH4 and two suburban rail stations - Pimpri and Chinchwad. The proposal not only supports better integration between public transport modes but also safe access for passengers. The loan may fund such improvements subject to requisite scrutiny from both technical and safeguard perspective. The safeguards team visited the proposed sites and suggested consultations on the matter of Parking along the road and street vendors in order to ensure that pedestrian infrastructure is available encumbrance free to passengers. There is a high incidence of parking along the road connecting the BRT station on NH4 to the Pimpri Railway Station as a result of residential and office space. PCMC was advised to give this proper attention and identify sustainable solutions in consultation with the affected in order to ensure that the pedestrian improvements proposed are effective and can be utilized by the passengers.

Detailed designs along with safeguard assessments for these interventions should be prepared and sent to PMU and then to the World Bank by May 31.

14. **Terminals and ITS.** As part of the project description 3 terminals and ITS systems are to be developed under the project. However, PCMC informed the Mission that the terminals were now likely to be developed directly by PMPML through PPP and the ITS systems are already included as part of the NURM funding for buses. Therefore, PCMC will not be utilizing the allotted funds towards these two activities. Alternative proposals for the utilization of these funds were discussed with PCMC including (a) pedestrian improvements and foot over-bridges along the BRT corridors and (b) bus shelters for the BRT stations. The Mission agreed that both these could be considered under the project and that PCMC must revert with a formal proposal in regard to these by April 30, 2011.

15. **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. PCMC informed that it has also set up the Pimpri-Chinchwad Infrastructure Company (PCIC), a wholly owned subsidiary supported by the Urban Transport Fund, for managing the BRT system.

16. PCMC shared the list of TA activities that they propose to undertake as part of the GEF grant funds:

- (a) Parking Policy and Master-plan
- (b) BRT Promotion Plan
- (c) Policy Recommendations on Passenger Access Improvement to Public Transport & Master-plan on BRT Corridor
- (d) Monitoring and Evaluation

17. It was agreed that PCMC would share the ToRs and initiate the procurement of activities a-c above, by March 31. Regarding (d) the ToRs for the same have been shared with PCMC and procurement of the consultant should be initiated by them by March 15. PMU/ PMC will share the necessary templates with PCMC. The Procurement Plan for consultancies shall be submitted by Feb 28.

18. **Bus Layouts and BRT Service Plan:** Owing to the geographic inter-relatedness 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. ITDP presented the draft BRT Service Plan for the two cities to the Mission. 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 bus way stations in Pune. This having been said, there is still a need to develop service plan for Pimpri-Pune route(s) that avoids duplication and unnecessary transferring. The key issue for these routes is how to collect fares on Pune bus ways for BRT routes connecting to Pimpri without compromising the performance of the Pimpri BRT system. The draft Service Plan has been submitted to PMPML and will be finalized shortly following discussions between the two cities and the bus company. PCMC shall share the BRT Project Implementation Schedule with the PMU and Bank by March 31 and the finalized BRT Service Plan by May 31.

19. **Project Disclosure.** The Mission noted that the SUTP project description had not been provided on their website as per previous discussions. PCMC shall complete this task along with disclosure of necessary documents by March 31.

Environment Management

20. The mission discussions and visits covered the two corridors and new proposals for pedestrian access to sub-urban railway stations from the BRT route.

21. The mission expressed its deep concern and discussed again the changes and additions that are required for the finalization of the EIA which have been under discussions for last several missions with PCMC officials and NPMU-PMC. It explained the changes necessary to reflect in the document actions already undertaken – such as consultations, transplantation of roadside trees, etc. It also discussed and has agreed that the EIA will be available for Bank review by February 28, 2011. The mission urges all concerned to attend to this as a priority action since the disclosure of this document is a very important milestone.

22. The mission also reviewed with the PCMC officials a draft format prepared by the NPMU-PMC to monitor the progress on environmental management across the various contracts for the two corridors. It has been agreed that this will be filled out every month and consolidated every quarter by the Executive Engineer, Environment of the PCMC. The QPR from the NPMU will use this information from PCMC to highlight issues that require attention, as well as that deserve special mention. The mission urged PCMC and NPMU to ensure that this information started reaching the Bank team from the March 2011 QPR.

23. During the site visit to the Contractors' camp and work-site, the mission was pleased to note that the areas of improvement identified in the Contractors' site at the Bank funded grade separator were all attended. In addition, the contractor team has also carried out an AIDS related health camp for its work-force. The mission requested the PCMC to urge other contractors already working in the road works to try to emulate such solid performance on the ground. It also suggested that the NPMU- PMC start developing a compendium of good practices using this and such other initiatives as they develop during SUTP implementation.

24. The mission also visited temporary accommodation site for the project affected persons. It noted that the necessary services like electricity, water supply, and sanitation were being provided in the site. It urged the PCMC officers to ensure that the initial teething troubles such as water-supply, provision of segregated toilets for ladies and gents, etc. were taken care of. The PCMC has agreed to build on this and ensure that these are maintained as long as the site is in use for the PAPs.

Financial Management

25. *PCMC accounting:* Presently, in accordance with NURM guidelines the funds received from the Govt. of India (for NURM) are deposited in dedicated bank accounts, separately for each project (presently 2) and funds received in respect of Bank share are deposited in another separate Bank account. The Mission observed that PCMC is (a) maintaining accounts for Bank funded package on TALLY (an off the shelf accounting package) on double entry accrual basis and for non-Bank funded packages on another application on single entry cash basis; and (b) reporting project expenditure through the IUFRR in respect of Bank funded package only. As advised during previous mission, PCMC needs to maintain consolidated accounting records and report on the entire project expenditure (Bank and non-Bank funded). It was agreed that PCMC would maintain accounting records for the entire project expenditure on TALLY. The project transactions for non-Bank funded packages till date would be incorporated in TALLY. The

modus operandi for implementing this action was discussed with PCMC's officials and also with PMU; and PMU has agreed to coordinate this work which would be completed by March 2011 and the IUFRR for the quarter then ended would be prepared from these accounting records and report on expenditure for the entire period.

26. Further, the Mission was apprised that the project transactions are neither entered in the main accounting records of the entity nor are included in the audited financial statements of the entity. The Mission opines that this is not a sound practice as the loan/grant as well as the underlying asset should be accounted for in the entity's accounting records/included in their financial statements in accordance with accounting standards generally accepted in India, as the project is an integral part of PCMC. The issue was discussed with PMU and was agreed that PMU would bring this to the attention of the top management of PCMC and advise them on the appropriate accounting/reporting treatment.

27. Both NURM and World Bank projects are to be audited by the AG. Audit for NURM has been completed up to FY 2009-10 and the report is awaited. The Mission also discussed the status of entrustment of project audit to the Accountant General. The Mission also advised that the audit of project financial statements would cover the transactions for the entire project including Bank and non-Bank funded packages. PIU needs to ensure that formal approval is received by March 31, 2011

28. As per the mission assessment, PCMC needs to appoint a nodal person responsible for the project financial management activities. Also, presently only one computer operator has knowledge of operating TALLY. It was agreed that PMU would assess the staff requirement at PCMC for conduct of financial management functions adequately. PMU would liaise with PCMC and have at least one more person, preferably an Accounts Officer, trained in TALLY by 30th April 2011.

Key Agreed Actions:

- Submit the signed contract and procurement checklist for Empire Estate interchange - March 31
- Traffic Safety Audit Report for 2 BRT corridors – 31
- Share final BRT Service Plan – May 31
- Share BRT Implementation Schedule – March 31
- Submit detailed designs and EIA/SIA for passenger access improvements between BRT and suburban rail stations – April 30
- Submit proposal for utilisation of funds allocated to Terminals and ITS activities – April 30
- Submit draft final EIA – Feb 28
- Finalise microplans – March 31
- Complete land acquisition – April 30
- Complete disbursement of assistance to THs – April 30
- Project Disclosure on PCMC website – March 31
- Initiate procurement of M&E – March 15
- Initiate procurement of remaining TA activities and submit ToRs – March 31
- Submit Procurement Plan for Works and Goods and TA activities – Feb 28
- Submit updates on Environment performance of road packages on the Kalewadi to Dehu Alandi and Nashik Phata to Waked corridors in the agreed format - April 15

Social Management

1. The overall progress on the R&R aspects is moderately satisfactory. The RAP for two BRTS corridors were finalized and disclosed both on Bank and PCMC web sites; relocated about 157 residential squatters into transit relocation camp; and social assessment for Dange Chowk flyover and bus terminals have not become necessary as these were dropped from the Project scope. The PCMC however has not fully prepared for the implementation of the RAP. The coordination between Town Planning and Slum Improvement Departments desires to be improved for effective results.
2. **Relocation of Nashik Phata flyover PAPs at Transit camp:** About 157 squatters located at Nashik Phata chowk were removed and relocated at the transit camp built close to the displaced location. The mission visited the relocation camp and discussed with the families on their relocation. It was found that the relocation site has temporary houses with all the required amenities such as community toilets, electricity connection, water supply, internal roads and the compound wall. PCMC has done a commendable job in relocating the squatters. PCMC is currently in the process of constructing pucca houses for the squatters and planned for shifting them into permanent houses in the year 2012.
3. **Slow progress in land acquisition - For the total corridors:** A total of 54.78 hectares is required for the project. Of the total land required, 92% belong to private and the balance to the Government. Still about 42% of the private land remains to be acquired.
4. **Slow progress in land acquisition - For Flyovers:** A total of 9.4 ha was required for two flyovers located in two corridors (Empire estate flyover - 7.2 ha and Nashik Phata flyover – 2.2 ha). Of the total 7.59 ha was acquired (Empire estate flyover – 6.1 ha and Nashik Phata flyover – 1.49 ha) and the balance 1.89 ha has still to be acquired.
5. It was agreed that the PCMC will pursue with the Land (Revenue) department and expedite the acquisition before end April 2011. PCMC should also obtain the details on the number of people those have received compensation/TDR/FSI for the land that has already been acquired.
6. **Supplementary RAP for Nahsik Phata flyover:** There are about 30-40 commercial structures located on private land. About 157 squatters have already been relocated into newly built temporary relocation colony. PCMC should conduct social assessment for these PAPs and prepare and submit supplementary RAP to the Bank before April 30, 2011.
7. **RAP Implementation:** Limited progress has been made on the implementation the RAP, despite being provided with required guidance by the mission. Several activities need to be taken up for the implementation of the RAP such as preparation of individual micro plans for PAFs; issuing identity cards; conducting consultations for smooth relocation; and extending the entitlements to the affected before the PAFs get relocated. It was learnt that many of the affected titleholders have opted and received TDR options following the R&R policy of the SUTP. However, no details are available with the coordinating departments (Slum Improvement and the Town Planning Departments). It is discussed and agreed with the PCMC that the concern department should prepare an action plan to complete all the R&R activities. To start with the PCMC should finalize the draft micro plans with no further delay before end March 15, 2011.

8. **Social Assessment for Pedestrian walkways:** The mission visited the proposed pedestrian ways to connect the BRT stations with the Pimpri and Chinchwad railway station under the project. The quick field visits indicate presence of hawkers and vehicle parking on some of the proposed pedestrian ways. It is agreed that the PCMC will conduct public consultations on the designs of the sub projects and also the social assessment to assess land requirements, displacement and R&R needs. It is agreed that social assessment and also the RAP, as required, will be prepared and submitted to the Bank before end April, 2011.

9. **Complete R&R activities for the Title Holders whose lands are acquired:** As per the details available with PCMC about 7.25 ha of private land has already been acquired and in possession. As LA is complete for this amount of land, it is agreed that the PCMC will extend eligible entitlements to these THs. Complete R&R activities for the titleholders' whose lands have already been acquired before end April 2011.

Status of Agreed Actions Completed during the Last Mission and Agreed New Actions

<i>No.</i>	<i>Action Required</i>	<i>Agency</i>	<i>Previous Agreed date</i>	<i>Status</i>	<i>New Agreed Date</i>
1	Submit the final RAP to the Bank	PCMC	Nov 30, 2010	Completed	--
2	Prepare micro plans before and expedite the implementation of RAP with the assistance of the NGO	PCMC	November 30, 2010	Not done	March 15, 2011
3	Expedite and complete the acquisition for the balance land.	PCMC/Revenue Department	January 30, 2010		April 30, 2011
4	For the proposed Dange chowk flyover complete social assessment and also the RAP, as required,	PCMC	January 15, 2011	Not required as this component no longer under consideration	
5	For the proposed pedestrian walkways complete social assessment and also the RAP, as required and submit the report to the Bank.	PCMC	December 31, 2010	Not done as sites were not finalised	April 30, 2011
6	Complete R&R activities for the titleholders' whose lands have already been acquired.	PCMC	January 31, 2011	Not completed	April 30, 2011
7	Prepare supplementary RAP for Nashik Phata flyover PAPs	PCMC			April 30, 2011
8	Shift the Nashik Phata relocated Transit camp PAPs into regular houses	PCMC	--	--	March 31, 2012

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

Pune

1. A World Bank mission³ visited Pune on February 3, 2011 to discuss with the Municipal Corporation (PMC) the implementation of the Pune component of the Sustainable Urban Transport Program (SUTP). The mission met the Commissioner of PMC, Mr Mahesh Zagade and his staff and consultants; along with representatives of the Project Management Unit and the Project Management Consultants (Mott MacDonald).

2. The Mission rates the progress on the project moderately unsatisfactory. The status of the agreed actions is tabulated below. PMC informed the mission that their Governing Council had cleared the following projects for consideration under SUTP, (i) 8 underpasses on BRT corridor; (ii) skywalks; (iii) tunnels and (iv) a flyover.

	Agreed Action	Previous Timeline	Revised Timeline	Status
1.	Submit Final Designs & justification for 8 underpasses	July 31	November 15	<ul style="list-style-type: none"> List reduced to 4 Confirmation awaited on status of Social & Env assessment
2.	Submit feasibility study for Skywalk	August 15	December 31	<ul style="list-style-type: none"> Study submitted, however, already being procured through PPP
3.	Submit Passenger Access Masterplan	September 31	December 31	<ul style="list-style-type: none"> No progress
4.	Submit feasibility study for elevated BRT	July 31	no longer under consideration	<ul style="list-style-type: none"> No progress
5.	Endorsement on proposals from Governing Council	August 31	December 31	<ul style="list-style-type: none"> Approval for (i), (ii), two tunnels and a flyover
6.	ToRs for Bike Sharing Program	August 31	-	<ul style="list-style-type: none"> No progress

3. **Improved passenger access to BRT:** The Mission was informed that flyovers were being constructed in two locations and construction of underpasses already initiated in another, as such passenger access improvements through Bank funds could be considered in only four of the eight locations. The Mission observed that construction of flyovers at interchanges would only address motor vehicle traffic and not the passenger access to the BRT stations and advised the PMC to adopt a comprehensive approach to passenger access improvements along the BRT corridor rather than only focussing on select intersections. Each intersection and station location must be reviewed and the optimal solution i.e. at grade signalised crossing, foot-over-bridge, underpass, proposed. PMC does not have such a Master-plan readily available. Pedestrian subways could work in the four proposed locations and perhaps in others. The Mission found the design, with the highway raised to provide partially day-lighted entrances, sky-lighting and accommodation of commercial activity to be positive. However, more public transport information for the locations, e.g., boardings and alightings, and accidents at the selected sites as well as the respective pros' and con's of other ways of improving access would be needed to

Nupur Gupta (TTL), Sam Zimmerman (Public Transport Specialist), Venkat Rao Bayana (Social Development Specialist)

justify the selected stations and any others that the PMC might propose. The status of social and environment assessments shall be communicated to the Bank and PMU by March 1, 2011.

4. **Skywalks.** The Feasibility Report provided on the proposed skywalks centered on Pune RR station suggest that they might be desirable, but contains little understandable information on how they would be integrated into a general access scheme for the station or their justification. It seems that they could function as an integral part of railroad station itself, and if combined with several terminals for 3-wheelers, taxis and buses at somewhat remote access points (via escalators), would serve to improve station access. They thus could be used to move congestion away from the station and allow the pedestrianization of the area and create a more attractive environment in the heart of the city. However, PMC has already initiated the development of the proposed skywalks on PPP mode and is expecting the bids by February 14, 2011.

5. **Tunnels & Flyovers.** The Mission understands the motivation for the Pune Municipal Corporation pursuing additional connections to complete its arterial roadway grid, but must reiterate that the only infrastructure projects eligible for SUTP financing are those that give priority to public and/or non-motorized transport.

6. **Social & Environment Management.** Pune will conduct appropriate public consultations and carry out social/ environment assessments on the proposed sub projects as required including the passenger access improvements on the BRT corridor.

7. **Pune City Demonstration Project Restructuring.** Based on the discussions during the Mission, it was recommended that in the absence of any proposals that could be considered under the Public Transport Component, the funds allocated to it could be cancelled/ reallocated. Under the Non-Motorised Transport Component, presently only four underpasses are proposed. The Mission feels that unless a more comprehensive approach to improving passenger assess on the entire BRT corridor is adopted this may not be a project with requisite demonstrational value. PMC shall revert to PMU and the Bank by March 31, 2011 on their final proposals for the project. In the absence of any reasonable proposals the funds under NMT Component shall also have to be cancelled/ reallocated.

Key Agreed Actions

8. Revert on final proposal for SUTP and / or restructuring proposal – March 31

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

Naya Raipur

1. A World Bank mission⁴ visited Naya Raipur on February 2, 2011 and subsequently met again in Delhi on February 10, 2011 to discuss with the Naya Raipur Development Authority (NRDA) the implementation of the Naya Raipur component of the Sustainable Urban Transport Project (SUTP). The mission met the Chief Executive Officer of the Naya Raipur Development Authority, Mr. S.S. Bajaj, and his staff and consultants; and representative of EMBARQ assisting NRDA with BRT planning and implementation.

Development of cycle tracks and pedestrian walkways

2. NRDA plans to build about 36 km of bikeways and footpaths along main roads and BRT corridors in Naya Raipur as part of the SUTP. The procurement of consultants for preparation of the detailed project report (DPR) for this activity is ongoing. It was agreed that the technical evaluation report shall be submitted to PMU and the Bank by April 30 2011, for their no objection.

Bus Rapid Transit System (BRTS) Phase 1

3. **Naya Raipur BRT Service Plan & Integration with RCBS:** The key project here is the BRT system for Naya Raipur. This is a new capital city being developed for the State of Chhattisgarh. It is obvious that for the first several years, there will be considerable movement of people from the old city to the new city. Accordingly, for the BRT to be successful, it would need to be able to meet the travel demands from old Raipur to Naya Raipur as well as for the suburban traffic that comes to Raipur from the surrounding areas of Durg, Bhilai, Bilaspur, etc. The BRT Service plan has been prepared by EMBARQ taking into account the route planning exercise by the Raipur City Bus Company.

4. The approach taken by EMBARQ in developing the service plan was to use the current residential locations of Chhattisgarh State officers to estimate the travel volumes between the new Naya Raipur state government work sites (Secretariat Complex, etc.) and current Raipur residences. These are likely to remain the same for at least 5 years, the horizon for the initial service plan. The proposed service plan features a variety of am peak period “self feeding” routes, coming from a variety of locations in Raipur, passing through the new Terminal at Raipur proposed on the site of the current State Secretariat’s parking lot, then going to Naya Raipur (NR). Some of these, in turn, will run express to NR while others will make selected stops. At the Raipur end, a loop will serve a variety of trip attractors (new secretariat complex) and trip generators as well as the site of a Naya Raipur terminal. The pm peak would reverse this pattern, while in the off peak period, there would only be a local service from Raipur upto the new terminals closer to the boundary of Raipur and NR, on NH6 and NH43. The Mission was advised that the BRT Service Plan has been discussed and agreed with RCBC.

5. *Ridership Estimates.* The ridership estimation procedures and resulting service plan are starting to make more sense. Assumptions on mode splits and the number of travelers relating to state government between Raipur and the Naya Raipur State Government complex seem reasonable. The having been said, it would be nice if some data (i.e., current residential locations

of state workers) was available to check the likely split of demand between the North (NH 6) and South Corridors (NH 43). This could come from a survey of existing state workers.

6. Another issue is the number of visitors to the state complex. The consultants, absent any confirming data, have assumed that for every state worker, there are 0.5 visitors. Moreover, the assumption is made that the clear majority of visitors travel during off peak periods. Though both assumptions seem reasonable, a simple survey at the entrance of current state facilities in Raipur to identify entering people as workers or visitors by hour, would be easy and substantiate these important assumptions.

7. *Phasing of Service and Operating Plans.* Given the assumptions made and applied for ridership estimation, the service plan, with its routes focusing on travel by state workers and visitors back and forth between Raipur and Naya Raipur in the near future, adding services within Naya Raipur as it grows, seems reasonable.

8. However, based on the immediacy (Fall 2012) of the need for Raipur-Naya Raipur public transport services to be launched with the shifting of state offices to the Capital Complex in Naya Raipur and the time needed to complete all planning, design and construction work on critical BRT facilities, phasing of Raipur-Naya Raipur public transport service must be considered. Consideration should be given to the use of Raipur transit buses and facilities to provide the public transport connections in the period before the necessary depot, stations and terminals are in place. These connections would have essentially the same service plan as the BRT system which would be coming up, but be in place in time for the Chhattisgarh State Complex's opening date.

9. It is recommended that a specific operating plan be developed for the interim services which would cover:

- Institutional arrangements for the system, including how fare and service levels and other policies would be set, e.g., by the NDRA, the role of the Raipur Municipal Corporation and the Traffic police
- Specific service plan (e.g., number of vehicles required, route alignments, stop locations, terminals, depot, hours of operation, schedules)
- Arrangements for vehicle procurement (e.g., leasing from Raipur) and maintenance
- Fare policy (structure, levels, integration with Raipur PT system) and how fares would be paid and collected
- Terms of bus contractor payment, e.g., payment per vehicle-km operated incentives and penalties, sensitivity to inflations, etc.
- Arrangements for monitoring and supervision "on the street"

10. For the final BRT system to be launched subsequently, a similar plan would be prepared, but be expanded to cover operation and maintenance of stations and terminals, the depot, transit-ways, the presumably more complex fare collection system and the ITS system. Special attention would be given to how the institutional arrangements for BRT would be integrated into the emerging Raipur Metropolitan Region UMTA.

11. The Mission was concerned at the continuing delays in the submission of the updated DPR and it was agreed that the Final DPR incorporating the interim and BRT Service Plan would be submitted to the PMU and the Bank no later than March 15, 2011.

12. **Priority to traffic movement between Raipur and NR.** Given the significant linkages between the old and new city it was suggested to the city authorities (NRDA) that an extension of the BRT from Naya Raipur to Raipur may be thought of as there will be significant travel demand between the two cities. However, the main connectivity between the two cities is through NH6, which is already being developed under a BoT concession, and NH43, which is again proposed for widening through a PPP concession. In such a situation, taking away a lane for buses would

not be acceptable to the NHAI or private concessionaire. However, an alternate alignment, using some local roads or some abandoned canal or railway line could be thought of. It was agreed that NRDA would explore such a possibility.

13. **BRT Facilities including Bus Terminals, Shelters and Depot:** NRDA informed the Mission that they had not been able to prepare the detailed plans for the terminals at the Central Secretariat at Raipur and one each on NH6 and NH43 and a BRT depot owing to problems with the consultants assigned with the task. This is unfortunate as this further delays the launch of the proposed BRT service. Also, the interim bus service being considered now will also require some form of terminal and depot facilities. The matter was discussed at length and it was agreed that new consultants with requisite credentials and familiarity with BRT designs would be hired using grant funds available under GEF-SUTP to prepare the detailed designs and drawings. Another possibility could be to develop the depot and terminals through a Design-Build lump sum contract.

14. From a design perspective, for the terminals, key location criteria are:

- maximize walk-in, walk out potential
- minimize traffic conflicts that might impede BRT operations to/from the facility
- provide opportunities for transit-oriented development of surrounding areas both to create a more sustainable environment and create the possibility of income that can be used for project purposes.

15. The selected locations, on the whole, meet these criteria, but there are still issues relating to traffic engineering to facilitate BRT operations. The success of the terminals is very much dependent on effective traffic engineering to facilitate the movement of the bicycles, other (e.g., Raipur Municipal Transport Corporation) buses, taxis, motor rickshaws and private cars that will augment pedestrian access to the terminals.

16. The mission is particularly concerned about the movement of BRT vehicles in and out of the Raipur terminal to be built on the site of the surface parking lot of the current Chhattisgarh State Secretariat. The controlling intersections both for buses coming from Raipur to pass through the terminal and the exit from the terminal toward NR are complex and impacted by heavy traffic on all legs meeting at the intersections.

17. Unless significant attention is paid to the facilitation of bus entry and exit from the terminal, there could be problems with speed, reliability and safety. This could involve a combination of special traffic signals, intersection channelization, signage and pavement marking and even roadway reconfiguration.

18. The key issue for the depot location is to have sufficient room for overnight parking and routine daily maintenance and minimize dead heading time, and this has been achieved with the NR location.

19. The Mission and NRDA agreed that NRDA shall revert with a concrete proposal for going forward on this issue by February 28, 2011 and prepare final designs by May 31, 2011.

20. **System Integration Support.** The Mission again discussed the need for a comprehensive project implementation plan in order to be able to manage the launch of the bus service and then BRT efficiently. Presently, no schedule exists for development/ implementation of all system elements, including operations (e.g., hiring, training drivers, station attendants) as well as design, procurement and construction. Now with an interim service proposed to coincide with the launch of the Capital Complex in Naya Raipur in April this becomes even more critical. NRDA needs to

make sure that all aspects of BRT system work together as an integrated system. It was agreed that NRDA shall submit such a plan to the PMU and the Bank by March 15, 2011.

Technical Assistance and Capacity Building

21. **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 terms of reference for consultancy on ToD have been finalized. It is agreed that NRDA will initiate procurement for this activity by Feb 28 and the draft RFP along with the consultant shortlist shall be submitted by April 15.

22. **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 ToRs for this are being finalized based on comments provided and it was agreed that the EoI for the activity would be issued by March 31, 2011.

23. **Urban Transport Fund.** The Mission commended NRDA for its initiative in instituting an Urban Transport Fund for the city. It advised NRDA to consider hiring technical support for developing a system for the utilization of these funds.

24. **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 the next step is the constitution of the UMTA through legislation, the process for which has been initiated and is likely to take around three months to conclude. The GEF funds available for capacity building could be used to strengthen the UMTA appropriately once it is constituted.

Procurement Plan

25. The updated Procurement Plan was discussed with the Mission and PMU and it was agreed that a revised one would be submitted by Feb 14, 2011.

Implementation Arrangements

26. NRDA informed the Mission that they had re-initiated the selection process for a Transport Planner to support its PIU and would revert to the PMU and the Bank with their proposal by March 31, 2011.

Environment Management

27. The EA documentation for Raipur is in advanced stage of completion. The mission advised that the final version should be quickly submitted to the NPMU for review by its PMC after adding material on the analysis of alternatives, and consultations with persons near the depots. It was agreed that this would be completed by 15 March 2011.

Social Management

28. NRDA has submitted the revised draft Social Assessment report. The review suggests that the report requires re-work on presentation and consistency. It is agreed that the revised report will include the comments and will submit the revised final report to the Bank before February 28, 2011 and will disclose on its web site before March 31, 2011.

29. The land for bus transit terminal provided by the Agricultural University, has three university staff quarters and NRDA shall resolve the relocation matter with the University at the earliest.

Key Agreed Actions:

- Submit updated DPR – March 31
- Submit Project Implementation Schedule – Mar 31
- Submit technical evaluation report for NMT DPR – Apr 30
- Submit Proposal for Designs for Bus Depot, Terminals & Bus Shelters – Feb 28
- Prepare detailed designs for Bus Depot, Terminals, Pick up Points & Bus Shelters – May 31
- Submit revised EIA / SIA – Mar 15
- Finalise UMTA constitution – May 31
- Submit draft RFP for the ToD study – Apr 15
- Initiate procurement of Regional Mobility Plan – Mar 31
- Submit ToRs for study on Regional Mobility Plan – Mar 31
- Submit proposal for appointment of Transport Planner – March 31
- Submit Procurement Plan – Feb 14

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

Indore

1. A World Bank mission⁵ met with AICTSL officials on February 9, 2011 to discuss the project progress in regard to the Indore component of the GEF-Sustainable Urban Transport Program (SUTP). The mission met Mr. Vivek Shrotriya, CEO, AICTSL, AICTSL staff, EMBARQ and consultants.
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 2nd 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. The PMC made a presentation to the Mission on the status of the project. An inception report has already been prepared and various reports on AFCS, TSP and M&E have been prepared.
3. *Cost Estimates and NURM Sanction.* The issue of increased project costs was raised by the PMC and how this might affect the final designs. The Mission advised AICTSL to submit an analysis of the cost estimates of various design options along with the pros and cons of each option. It was discussed that there was a trade off between costs and specification sophistication and such an analysis would help resolve the matter by identifying the incremental utility of higher specifications in relation to costs involved in the particular city context. It was agreed that such an analysis would be submitted to the PMU and the Bank by February 28, 2011.
4. It seems that the ITS Project approval under NURM is also pending. AICTSL was advised to take this matter up with MoUD at the earliest.
5. Service plan for the BRTs are being prepared by Embarq. 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. 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.
6. *Project Scheduling.* A number of critical activities (e.g., bus shelter installation, driver training, service provision/contracting) remain to be addressed in over-all project management. A comprehensive **implementation plan**, including a “Gant Charted” schedule needs to be prepared and procedures for its tracking and follow-up developed by the PIU. AICTSL expressed its inability to commit to such a schedule owing to multiple stakeholders involved and its dependence on IMC and IDA for the timely completion of the BRT corridors. The Mission was concerned to learn about the uncertainty regarding the completion of the remaining two corridors under Phase 1. NURM funds have been sanctioned for only the first corridor in Phase 1. The remaining two corridors are dependent on the availability of funds with Indore Municipal Corporation and Indore Development Authority. The Mission advised AICTSL to resolve the matter in discussion with IMC and IDA at the earliest. Given that a second corridor in Phase 2 has been approved for NURM funding it might be preferable to pre-pone its delivery to Phase 1. The detailed implementation plan in agreement with IMC and IDA will be submitted to the PMU and the Bank by March 31, 2011. The Mission feels that the absence of an UMTA mechanism in

Nupur Gupta (TTL), O.P. Agarwal (Urban Transport Specialist), Sam Zimmerman (Public Transport Specialist)

the city is adversely affecting the delivery of the BRT project. The ITS implementation is also likely to be affected in the absence of clarity on the three corridors to be taken up for implementation.

7. *Monitoring & Evaluation.* The Mission shared its comments on the M&E plan submitted by AICTSL. It was agreed that a detailed table of the specific performance indicators to be tracked and their frequency in the format shared for the other cities shall be submitted to the PMU and the Bank by February 15, 2011.

8. **Technical Assistance Activities.** Indore has identified and agreed with the Bank the following TA activities costing approximately Rs 20 million to be taken up under project funds:

- Training program on operations management and monitoring
- Communications and public outreach
- BRT user satisfaction surveys
- Developing a BRT accessibility plan
- BRT station design and traffic intersections design

9. The Mission again raised the matter of the pending Procurement Plan for Consultancies and the need for expediting the same. It was agreed that the Procurement Plan for consultancies (in addition to Goods) would be submitted to the PMU and the Bank by Feb 15, 2011. The ToRs for BRT accessibility plan shall be prepared and submitted to PMU and the Bank for review by 15 February 2011.

10. **Implementation Arrangements.** AICTSL is thinly staffed and there is an urgent need for it to bring on board staff to support the various functions of project management, procurement, transport planning & operations etc. AICTSL shared that they were already planning to hire professionals to support the team and it would be able to do so by March 31, 2011.

11. **Financial Management.** The Mission expressed its strong concern over the continuing delays in the creation of budget sub-codes for on transfer of project funds. The possibility of funds being transferred through IMC, as was being done for NURM funds, was also discussed. AICTSL confirmed that the state government would be provisioning for the project under the third supplementary for FY11.

Key Agreed Actions:

- Ensure budget provision in third supplementary – Immediate
- Submit Procurement Plan for Goods and Consultancies– Feb 15
- Submit Cost Analysis for ITS – February 28
- Submit Final Designs Report – April 31
- Submit BRT Implementation Schedule – March 31
- Submit draft ToRs for BRT accessibility plan – Feb 15
- Submit revised M&E Report – Feb 15
- Ensure additional staff at AICTSL – Mar 31

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

Mysore

1. A World Bank mission⁶ met with the Karnataka State Road Transport Corporation (KSRTC) officials in Delhi on February 9, 2011, to discuss the implementation of the Mysore component of the GEF-Sustainable Urban Transport Program (SUTP). The mission met the Project Director, KSRTC, Mr C.G. Anand 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 is in its last stages. The bid evaluation report has been submitted to the PMU and the Bank during the Mission. The updated project implementation schedule will be submitted to the PMU and the Bank by February 18, 2011.

5. *PMC Procurement.* The mission advised KSRTC to expedite the procurement of the PMC for the project. Since this is a three year PMC it is advisable to use a time based contracting modality as opposed to a lump sum since the PMC's delivery will be dependent on the ITS vendor and this will ensure superior quality input. It was agreed that the revised draft RFP would be submitted to the PMU and the Bank by February 15, 2011.

6. **TA Activities under the Project.** KSRTC shared its proposal for the use of funds available for technical assistance under the GEF grant. In addition to the M&E already included in the project description, it was agreed that a comprehensive study on Mysore bus operations plan would be conducted. The draft ToR for such an activity is attached as Appendix 6-A. An updated Procurement Plan incorporating these should be shared with the PMU and the Bank by March 31, 2011. It was agreed that the EoI for the M&E activity would be initiated by February 18, 2011 and the draft RFP along with the shortlist submitted by March 31, 2011.

Key Agreed Actions:

- Updated Procurement Plan along with TA activities submitted by March 31.
- Procurement of M&E consultant initiated by February 18
- Draft RFP for PMC for ITS system submitted by February 15.
- Submit revised Project Implementation Schedule by February 18.
- Submit final ToR for bus operations and service analysis study by Mar 31

⁶ Comprising Nupur Gupta (Task Team Leader), O.P. Agarwal (Urban Transport Specialist), Sam Zimmerman (Public Transport Consultant).

ToRs for Mysore Comprehensive Service and Operations Analysis

1. The Karnataka Road Transport Corporation (KSRTC) operates one of the largest, best run bus companies in India. Every day, more than 4,000 buses are deployed and provide service for more than 2 million daily passenger trips. This having been said, KSRTC's service area is changing. Population, employment and income growth is rapid, and more and more people have access to two and four wheeled motor vehicles which pose two threats to KSRTC. As congestion increases, the speed and attractiveness of KSRTC services will decline as more and more human, financial and other resources are needed to provide the same capacity. At the same time, increasing motorization poses tremendous competition for KSRTC's market.
2. Accordingly, the KSRTC proposes to undertake a comprehensive review of its network as a whole and its individual routes.
3. **The objectives of this review are to:**
 - (a) Improve the efficiency of the KSRTC network
 - (b) Increase the attractiveness of KSRTC services to current and potential new passengers

Tasks:

I. Collect/compile data items pertaining to the supply, demand and performance of the existing KSRTC bus system for all routes which focus on Mysore. These will include:

4. **For each route:** Total one way length in KM, Roundtrip revenue running times, including layover/schedule recovery, total daily riders, total daily VKT service provided, peak bus requirement, peak headway, maximum load point, peak hour peak-direction volume; daily revenue collected
5. **For network:** Trip matrix of total daily trips
6. **For Fleet:** total number of active vehicles owned, total operated, by type and age
7. **Total operating and maintenance costs broken down by:**
 - Those that vary with revenue VKT, e.g., fuel, vehicle maintenance
 - Those that vary with revenue vehicles of service, e.g., labor costs for drivers, conductors, road supervisors
 - Those that vary with number of vehicles, e.g., certain administrative costs, insurance, routine inspections, fueling, administration
 - Travel time survey: For the 25? Busiest route perform a statistically significant speed survey. This will involve traveling each route over a number of days and noting, by segment, how much time is spent actually moving, how much time is spent stopped at intersections or signals, how much time is spend stopped mid-block in congestion and how much time is spent at stops; For stops the number of passengers boarding and alighting is also recorded

II. Using the budget/cost data, develop a fully-allocated O/M costs model

8. This model, sensitive to the number of peak vehicles deployed (by type), the vehicle hours of service provided and the vehicle Km operated will be used in subsequent analysis tasks.
9. **Determine the set of performance indicators that will be used to evaluate each route;** Using the O/M cost model and data collected under Task one, compute the agreed to set of

performance measures for each route, e.g., passengers/VKT and/Hour, revenue to cost ratio, average revenue speeds, load factor.

III. For the 20%-25% of the routes with the worst performance in terms of the agreed to criteria, analyze the reasons for the poor performance, with a special focus on delay and ridership.

IV. Make recommendations for changes and improvements, including:

- changing service levels
- combining routes
- changing route alignments/ terminals and/or stopping patterns
- traffic and public transport operating changes to decrease delays and increase speeds

10. In making recommendations, consideration will be given to reorganizing the system within Mysore along “functional” line, e.g., :

- Circulators serving short trips within the core of Mysore and other significant communities
- Regular local bus service on all major arterials
- Suburban express service oriented to longer work period trips from major surrounding residential areas, including Bangalore
- BRT

V. Develop a PT network model for the current service network and one with the recommended changes.

VI. Assign a validated public transport O/D trip matrix to each network and compare in terms of a variety of performance factors:

- Total PT travel time
- Transfer rates
- Vehicle, VKT and Vehicle hour requirements
- O/M cost estimates

VII. Analyze the assignment results and recommend a final set of network changes to improve performance for the over-all system.

11. This analysis will use similar indicators as the route by route analysis but this time at a network level, including total network PT passenger travel times, transfer rates, load factors, revenue compared to costs, etc.

VIII. Prioritize the changes and develop an implementation plan

12. This prioritization process will recognize the fact that if a more hierarchical Mysore network is to be implemented, it must be phased, e.g., by corridor to avoid wholesale dislocations for the riding public.

New City Proposals

A. Hubli-Dharwad

1. **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 a 31 km BRT system to be built in the region covering the Hubli – Dharwad corridor and extensions to the Airport and an industrial estate, improvements to the depots and terminals as well as procurement of new buses. The estimated cost is Rs. 524 crores.

2. 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 two twin cities together are in order. The volume of public transport passengers between the two parts of the city is already enormous and a high capacity mass transit system could cater to the demand more effectively.

3. The Bank team, along with representatives of the NWKRTC, Municipal Corporation as well the Commissioner of DULT visited the proposed corridor as well the existing terminals and depots in both Hubli and Dharwad.

4. **Service planning:** Any service planning for BRT between the two cities must account for the need to integrate BRT with the rest of the city's extensive public transport system. There are currently several types of public transport service – separate urban services in the two parts of the city, connection service and suburban services focused on both Dharwad and Hubli, connections to outlying villages and inter-city bus services.

5. As part of the process of identifying then preparing a BRT project, a comprehensive service plan encompassing all these service types should be prepared. Special attention would be paid to service integration to minimize duplication and the need for undue transferring, fare integration and locations and concept plans for modal interchange facilities.

6. The BRT service plan itself must recognize that the flexibility of BRT allows it to operate beyond where there is a specific BRT transit-way to allow it to access certain important markets where transit-way construction may not be justified or even possible. The stations or terminals that the extended BRT service would connect would be designed, branded and built to, in essence, the same as those actually on the transit-way, and fare collection there would also be the same.

7. This is relevant to connections to the Airport Corridor North West of Hubli where initial volumes may not justify transit-way construction early on but might justify a “BRT” connection. On this corridor it is not clear how many of the current bus trips there are actually travelling through the Hubli CBD to destinations in the Hubli-Dharwad Corridor or Dharwad itself.

8. **CBD Traffic, Parking and Pedestrian Circulation:** At the current time, virtually all urban bus services, those between the two cities and some suburban services, and intercity have terminals in the two urban cores. While this may have been efficient and effective when Hubli and Dharwad were two small cities and the immediately surrounding areas rural, this may not be the best pattern today. It is important that all these terminals should be properly integrated, to allow easy transfers between different classes of services.

9. There are also traffic circulation and pedestrian access issue in both central Hubli and central Dharwad that must be addressed. If this needs stretches of grade separated running-ways for buses, these should be explored. The vibrant shopping, government, religious, social and commercial activities in the cores of both cities are what make them livable and attractive; however, there are enormous congestion and safety issues associated with this activity. These

issues should be dealt with as part of a BRT project which will depend on good pedestrian access and efficient circulation in the respective CBD's for its ultimate efficiency and effectiveness.

10. **Pedestrian Access to Corridor Stations:** Representative of the traffic police present during the mission was rightly concerned about pedestrian access to BRT stations in the corridor between Hubli and Dharwad. This is an important issue because as the currently highly congested roadway is expanded, speeds will increase in this rapidly urbanizing area. The Mission made the suggestion that the philosophy in addressing this important issue should be to focus on the safe movement of people, not necessarily vehicles. With this in mind, there are a number of options for addressing this problem. One is placing signals with pedestrian-only phases and perhaps rumble strips or speed tables, at all stations, as a minimum. Construction of well-lit, safe and secure subways with sky-lighting and partially day-lighted entrances (e.g., raising the highway somewhat (e.g., 1-2 meters) at busier stations so less of a descent is required) and foot over bridges are other possibilities.

11. **Linking with ongoing road widening project:** It was informed that the State government had already taken up a proposal for the widening of the Hubli-Dharwad road and this was at an advanced stage of award of work. This could not be delayed. The widening would be to a 4-lane standard. However, for the BRT a minimum of 6-lanes would be required. If service lanes are to be included the width will be even more. Some stretches of the corridor have inadequate right of way and there would be a need for additional land acquisition. Therefore, a concern was about how the activities could be sequenced so that the work on hand is not delayed and yet the needs for the BRT are taken on board without the need for reconstructing anything. It was agreed that the widening work could proceed. However, the width requirements and other facilities required for the BRT should be informed to the KRDC so that these needs are accommodated, to the extent possible, while implementing the widening. BRT consultants, CEPT, will quickly inform KRDC about the BRT requirements that should be accommodated. The social and environment safeguard provisions shall also be kept in mind. KRDC is already familiar with the Bank safeguard requirements as they are also involved in the Second Karnataka State Highway Project with the Bank.

12. **Preparation of DPR:** At this stage only a pre-feasibility report has been prepared. This needs to be detailed into a DPR so that the requisite approvals can be taken. It was agreed that CEPT would prepare the DPR within about 3 months. In doing this, they would include all details as required in a DPR, such as the infrastructure details, operations plan, management structure, financial analysis, etc. It should include an environmental and social analysis as required for all World Bank projects.

13. **Social Assessment:** The mission has participated in the discussions on the new city proposals from Hubli Dharwad (Karnataka state) and Jaipur (Rajasthan). The mission has carried out site visits on the proposed BRTS corridor in Hubli Dharwad. The preliminary assessment indicates that there will be land acquisition and possible dislocation of some structures. However, this will be subject to the final designs which are in the process of preparation. It has been discussed with the concern officials and the consultants of both cities that proper social assessments and appropriate mitigation plans will have to be prepared as part of the DPR preparation and the needful consultations and gender assessments will also be carried out. The given ToR in Operational Manual and the ESMF on social assessments will be followed for preparing the RAP and conducting social assessments. It has also been agreed that the SUTP ESMF will be customized for the new cities considering the local provisions and the practices and the revised documents will be disclosed in their respective web sites.

14. **Environmental Assessment:** Building on its previous site visits in January 2011, the mission had very good discussions on the issues that need to be covered for the environmental management in the project as the DPR preparation begins for the BRT related activities. It highlighted the potential issues that would need to be considered – cutting of roadside trees,

reduction in storage volume of water bodies, risk of damage to roadside shrines and other cultural resources, recycling of wash water in depots, groundwater recharge, etc. which would need to be addressed during project preparation and implementation. It suggested that the consultant team quickly review SUTP ESMF to ensure that project design is informed by its stipulations. As part of the discussions on areas where technical assistance may be useful, ambient air quality monitoring and reporting was identified for further consideration.

15. **Institutional arrangements:** Northwest Karnataka Road Transport Corporation (NWKRTC) does a particularly good job of operating public transport services in the Hubli-Dharwad Region. It is, however, not clear that NWKSTRC should also operate the BRT system. BRT goes beyond a regular bus service to encompass transit-ways, stations, passenger access, terminals, ITS, fare collection, etc. There would be a need for a separate entity to be set up to build and manage the BRT and possibly the other transport systems in the city. Most successful BRT systems (e.g., Ahmedabad) are operated by a special purpose vehicle that is a cooperative venture of all relevant parties, including the city, the state and the relevant transit operators. Formation of such an SPV is frequently seen as one of the key responsibilities of the Urban Metropolitan Transportation Authorities called out in the Nation Urban Transport Policy. However, the form and structure of such an entity should be decided upon. This is important as the management structure is an essential component of any such system.

16. In order to assist the process, there seems to be a need for an analysis of different institutional options. The Bank team agreed to find some grant funds for such a study under the AusAid TF. It was agreed that the bank team would prepare a TOR for such a study and share with DULT to review before the Bank procures a consultant for such a study.

B. Rajasthan

17. A meeting was held with Mr. G.S. Sandhu, Principal Secretary, Urban Development Department and his team. Proposals were for considering the following under the SUTP:

- Pedestrianization of the old city in Jaipur
- Public Transport Master Plan, including alternatives analysis for Jodhpur
- CMP and Public Transport Master Plan, including alternatives analysis for Kota

18. It was felt that the pedestrianization of the old city would be an excellent project to take up, particularly in view of its tourist interest. However, in developing a DPR, the required social and environmental analysis should be undertaken. Focus on public communications and consultations would be critical for such a project. It was agreed that the Govt. of Rajasthan would have the DPR prepared quickly and come back for inclusion in the SUTP. Prima facie it seemed a good project to include.

19. With regard to the public transport master plan for Jodhpur, it was felt that a professional job of developing such a master plan, including also an alternatives analysis, would establish a precedent and a standard that will be very useful and would serve a demonstration value. This could also be considered for support under component 1B of the SUTP.

20. With regard to Kota, it was felt that the first stage would be the preparation of a CMP and this should be done using the standard funding channels already available with the MoUD.