"Restore human legs as a means of travel. Pedestrians rely on food for fuel and need no special parking facilities.”
- Lewis Mumford

**GEF–World Bank–UNDP supported**

**Sustainable Urban Transport Project (SUTP)**

*SUTP* is an initiative of the Government of India, assisted by GEF, World Bank, and UNDP, aiming at strengthening capacity in the Government, participating states and cities in planning, financing, implementing, operating and managing Sustainable Urban Transport Systems. The project also assist states and cities in preparing and implementing “Green Transport” demonstration projects for reducing greenhouse gases in the urban environment. The Project objectives are aligned with India’s National Urban Transport Policy 2006, particularly for priority to public transport non-motorised transport usage.

**Reflection and Updates in the Sixth Year of Implementation**

- SUTP is in its sixth year of implementation. Out of forty-eight technical assistance activities in capacity building, forty have been awarded till date, seven have been completed and five consultancies are in various stages of procurement and three are to be initiated. 3506 officials from cities & governments have been trained under SUTP in various workshops & training programs on urban transport, which is a significant input.
- Each of the five demonstration cities and six demonstration projects viz. Mysore (ITS & PBS), Indore, Naya Raipur, Pimpri Chinchwad and Hubli Dharwad have made progress. In Hubli-Dharwad, Mysore and Indore, procurement of 4 contract packages are underway. Two BRTS corridors have been launched in Pimpri Chinchwad. Transit-oriented-Development recommendations have been adopted in the Naya Raipur Master Plan and notified.

**Events**

**National Workshop on Preparing Guidelines and Model Contract Documents for City Bus Private Operations held on 12th April 2016 at New Delhi**

Under SUTP, guidelines document and four model contracts for city bus private operations have been prepared. The workshop was conducted to facilitate discussion on the prepared documents to solicit suggestions and comments from relevant stakeholders.

**Participants**

Representatives from Ministry of Urban Development, Government of India, World Bank, Municipal Corporations, Transport Departments of various states and union territories, bus manufacturers, city bus operators and various urban transport consultants were present in the workshop. The workshop was presided by Shri RK Singh, Director, Urban Transport, Ministry of Urban Development. Shri IC Sharma, National Project Manager, Sustainable Urban Transport Project (SUTP), Ms. Nupur Gupta, Task Leader, World Bank and Shri Sudesh Kumar, Team Leader, Mott MacDonald also took the dais.

**About the Workshop**

The consultant gave a presentation on the need for the project, objectives of the project and work completed under the project. This was followed by presentation on the guidelines document where its coverage, the process for assessing the business environment, planning the business model and type of contract options were discussed. The consultant also elaborated on selecting contract parameters and the decision framework for selection of right contract. The team also provided an overview of the coverage of the model contracts and discussed major clauses included in the contract.

In the subsequent session, representatives from the cities of Jalandhar, Mira Bhaindar and Kochi discussed the background and challenges specific to their cities and the rationale behind the choice of contract selected by them.
Suggestion given by Participants
- It was suggested that the responsibility for providing public transport services in the city should be one entity rather than distinct entities as that would provide for better coordination. It was also suggested that the procurement of permits should be made a conditions precedent for the authority and this responsibility shall lie with the authority. The stakeholders also suggested the need to have a section in the guidelines document highlighting the potential budgetary outlays in the different contract types throughout the entire contract period. It was also suggested that there be a gradual reduction in performance security amount as the contract progresses.
- The stakeholders also discussed the issue of city bus transport being lower in the priority list for Indian municipalities along with the lack of capability in these municipalities. Furthermore, it was also highlighted that for municipalities to run city bus operation, they would require 5/6 employees per bus and for larger cities having the organisational structure to support such an endeavour is not possible.
- It was also suggested that there is a need to have cost benefit analysis for location of depots so that the city can have an understanding of the dead mileage cost it would have to bear if locating bus depots in suburban areas. Along with this, it was suggested that cities need to plan for depots in suburban areas at present and acquire land in advance so that future needs are met.

Transit Oriented Development: Setting the Stage for Planning Smarter Indian Cities

Imagine that a long commute to and from work place by car or two-wheeler is replaced by a 10-minute walk to a nearby high quality transit stop after checking on your mobile the latest transit schedule. That would be ideal.

You walk your child along shaded tree lined footpaths up to the school, have your favourite chai and pick up the daily newspaper from a street vendor standing in a designated vending zone, before boarding the bus to your office. You check on your mobile app if there are enough cycles available at the bicycle sharing facility located at your destination. You reach office riding your bicycle on a segregated cycle track with pedestrians, cyclists, battery-operated cycle rickshaws, cars, two-wheelers all travelling in their designated lanes. You drop off your cycle at the bicycle sharing station located at the entrance of your office building and feel relaxed about not worrying about finding a parking spot.

During lunch you walk for 5-minutes, cutting through a nearby park, to go pick up flowers for your colleague’s birthday and head back for a lunch party at the restaurant on the ground floor of your office building. On your return home, you decide to take an e-rickshaw to the movie theatre in the metro station located 15 minutes away, where you meet your spouse and children. You book an Uber you’re your phone and reach home in 10 minutes, while treating your children to an ice-cream from one of the restaurants across your apartment building strolling along safe streets that are well-lit and clean with pedestrian crosswalks and cars driving within speed limits.

The above vision may be identified as Transit Oriented Development, better known by its acronym TOD. The term ‘TOD’ maybe new to Indian cities, however the message is the same as those seen in our traditional city forms, specifically in older core areas of our cities. In these compact neighbourhoods lined with shaded streets and a healthy mix of storefronts and residences above, people worked within a short distance of their residence; or the same building with the workplace on the ground floor and residential on upper floors. However, this lifestyle was often dictated by choices available (or a lack thereof) including limited financial access to own personal motorized vehicles; location of employment centres in existing developed areas and not on cheaper lands in large auto-centric commercial industries; and walking and cycling as the primary modes of travel accepted socially.

In other words, what’s old is new again with the emergence of TODs. This time around, the choices are different and the approach needs to be tailored accordingly to address the challenges of rapid urbanization including deteriorating air quality, affordable housing and congestion. Unlike its western avatar, TOD in the Indian context is not about using it as a densification tool and constructing high-rise buildings only. It is more about balancing live and work opportunities in closer proximity to each other. TOD in Indian cities might need to be redefined as Transit Oriented Design instead of Development. The development discourse is being construed to be generally viewed in terms of increased FARs. It is about designing high quality transit systems, designing innovative real estate deals between public and private sectors, designing smaller living
units near transit stations to maintain affordability, or designing public spaces to eliminate the boundaries between public and private realms.

In this respect, TOD plays an important role to integrate all these issues and more and offers an opportunity to think at different scale and at different levels of detail. SUTP’s National-level TOD Guidance Document, currently in its finalization stage, encapsulates all this and more through the principles shown below:

**Advancing Smart Cities through TOD Planning**

The above TOD vision is also what many cities crafted as their city goals in the recent Smart Cities Challenge conceived by the Government of India, geared to shape a more sustainable future for Indian cities. The fundamental philosophy behind Smart Cities, as envisioned by MoUD, is to shift the focus back on ‘people’ in all aspects of city building. The Ministry’s Smart City Proposal (SCP) guidelines successfully redefined the mostly technology-driven Smart Cities concept, as marketed globally, by placing citizen participation at the centre of the discussion.

Critics have often argued that “Smart Cities” vision is designed for the elite, will lead to gentrification of selected “smart areas” and will not address inequalities in a big city. However, when evaluated in detail, it is evident that the 24 “Essential Features” outlined in the SCP guidelines includes features aimed to address issues across all sections of the society with a focus on area based development. These 24 features, as illustrated below, are aligned with the principles of creating vibrant TOD area.
“Whenever I see an adult on a bicycle, I have hope for the human race.”
H.G. Wells

No matter what the branding of the urban development initiative, the discourse is focussed on implementation and not just policy. Whether it is called TOD or Smart Cities or Liveable Communities, the overarching intent is to rise up from the silo-based approach followed by the conventional master plans to better integration of city systems, bringing all players to the same table, and using technology (where appropriate) as an innovation tool.

There is a growing consensus that the future for Indian cities is not in building more roads, metro rail systems or bus rapid transit networks as solutions in themselves. Liveability in cities begins with understanding linkages between transportation investments, economics of land use and the combined impact on infrastructure capacities. It is not a one-size-fits-all solution like constructing footpaths, pedestrian foot-over bridges, flyovers and cycle tracks on each street, it is creating solutions based on neighbourhood’s needs, capacities and aspirations. All these tools enable decision-makers to work at the micro level - the neighbourhood, street, transit stop, and the land parcel. Something that is often ignored Indian cities stuck with drafting of city level master plans that can’t keep pace with a rapid development of the city.

**SUTP’s TOD Initiatives**

The theory related to sustainable transportation, infrastructure and land use integration has also been shaping new ideologies in the last 10 years. The National Urban Transport Policy 2006 and MoUD’s SUTP programme launched in 2007, have initiated several path-breaking projects that helped build the capacities of urban local bodies in understanding the role of sustainable transportation in building smarter cities.

Starting with the Naya Raipur TOD Study in a greenfield context, the SUTP programme undertook a much-need project to develop National-level Guidance Documents for preparing Transit Oriented Development, Non-Motorized Development and Public Bicycle Sharing plans. These Guidance Documents were supported with preparation of six City Specific Plans- Mumbai, Bhopal, Aizawl, Visakhapatnam, Vadodara and Gurgaon- to test the applicability of these “how-to” manuals across different sized cities with their unique conditions.

The project also incorporated an extensive capacity building component where several workshops were conducted to increase awareness and obtain feedback from diverse stakeholder groups. It was evident during these interactive discussions that many gaps remain in our understanding of the kinds of policies and institutional structures to see the realization of TOD projects in the next decade or so. Participants reiterated the fact that the best lessons learned will be evident by enabling action on implementation of real on-ground visible TOD projects in India.
Way Forward: Learning from Experience

There are several think-tanks and non-profits in India that are constantly engaged in creating toolkits, design guidelines as means to build adequate capacities. What is urgently needed is for these agencies to use the existing resources and avoid reinventing the wheel. This means taking the research further by investing in helping cities with implementation and creating success stories of “on-ground” projects and not plans that remain on paper.

Feedback received during the preparation of the SUTP Guidance Document(s) provide an opportunity to focus future research in the country. Some of the key takeaways from the workshops and stakeholder interactions may provide a glimpse into challenges that implementation of TODs may face:

- **Who takes ownership of TOD project implementation?**
  Ideally, planning or development authorities should take the lead in undertaking TOD projects, acting as the coordinating agency to bring different stakeholders together. However, it was also observed that most development authorities in Indian cities are severely constrained, both in terms of technical and financial capacities - to manage the day-to-day administrative activities as well as engage in dynamic planning like TODs. It was suggested that special authorities, similar to the Smart City SPVs, may be established for planning and implementing TOD projects. Other suggestions included Unified Metropolitan Transport Authorities could probably take up the role of mediating on behalf of the different agencies; or constituting multi-agency TOD Task Forces with senior-level representation to prioritize TOD projects. The appropriate institutional framework remains a gap with cities looking for precedents to emulate.

- **What is the role of private real estate developers in TOD city building?**
  Through various interactions with city agencies, it was evident that the private sector was not an active participant in these discussions, unintentionally and intentionally. Discussions with private developers revealed that they were cut-off from the city building process by the governmental agencies and were brought in only after policies were changed or decisions were made. Successful transit oriented cities such as Vancouver, New York, London, Hong Kong, or Tokyo, have demonstrated the value of establishing a strong relationship between public and private sectors using TOD as a catalyst. More emphasis needs to be placed on involving the private sector in creating public amenities as part of the development, and agencies such as CREDAI and CII need to take a larger role in city building and TODs. Again, the Smart Cities challenge has piqued the interest of the private sector and this needs to be transformed into an opportunity to get increased participation from the private sector.

- **Can transit agencies be the catalysts for the TOD-driven transformation?**
  Participants acknowledged that transit agencies are well positioned to take advantage of TOD as a tool with means to foray into land banking in order to increase transit ridership and direct a modal shift from personal vehicles to public transportation. The 2016 Railway Budget’s proposal to redevelop 400 stations as the world’s largest TOD undertaking is one such opportunity. With minimal land ownership issues, the redevelopment of these stations located in the heart of city centres is a unique opportunity to test the applicability of theoretical principles in creating signature TOD projects on-ground. There are gaps in the agency’s approach such as not allowing residential development in these station redevelopment projects that need to be revisited if true TODs are to be created.

- **What are the regulatory and legal barriers to enabling TODs at the local levels?**
  Beyond drafting urban design oriented guidelines and toolkits to help cities, what was reiterated in different forums is an urgent need at the central and state levels to overhaul the Town and Country Planning Acts, National Building Code Corporation building regulations, Urban Roads Codes, Indian Roads Congress manuals to better integrate the pedestrian and transit oriented principles. Further, policies to enable financing tools such as Tax Increment Financing (TIF) and Vacant Lands Tax. Further research needs to focus on financing TODs in collaboration with the finance and real estate industry.

MoUD’s initiatives in promoting sustainable transportation, TOD and Smart Cities are aligned with each other. Over the last decade, since the release of the National Urban Transport Policy in 2006, the deliberations related to development of Indian cities have taken a leap forward in embracing the theories behind prioritizing
It doesn’t cost more to deal with Climate Change. It costs more to ignore it.”

US Secretary of state John Kerry

the largest share of transportation modes in the country - walking and cycling. However, lot needs to be done in actual implementation and projects that can demonstrate the success of these theories.

While continuing research is critical in understanding the dynamic changes Indian cities are going through, there is a threat of heading towards an analysis paralysis stage, defined as “the state of over-analyzing (or over-thinking) a situation so that a decision or action is never taken, in effect paralyzing the outcome.” In resource-constrained cities with inadequate technical and financial capacities, the need of the hour is to make strategic investments and move from the rhetoric to action by supporting more on-ground implementation projects that apply the existing research done over the last decade.

A before (left) and after (right) visualization of Bhubaneswar Railway Station’s transformation into a Multi-Modal Town Centre incorporating TOD principles. The project is currently in advanced stages of development with NBCC appointed as the PMC.

A before (left) and after (right) visualization of Bhubaneswar Railway Station’s transformation into a Multi-Modal Town Centre incorporating TOD principles. The project is currently in advanced stages of development with NBCC appointed as the PMC.

All information, data and the article have been assimilated & written by Shri Bankim Kalra. Bankim leads the Urban Planning vertical of IBI Group in India. He has over 14 years of diverse experience working with public planning agencies, international development organizations and private sector consultants. With a background in architectural design and an urban planning concentration in economic development, Mr. Kalra brings unique skills that encompass various aspects of the development process.

Concept note on Jaipur – Future Smart City

Abstract

This article outlines the development process and features of Smart City Plan (SCP) for Jaipur City. It sketches the rudiments of what constitutes a smart city. The SCP defines Jaipur Smart City in which smart components such as Smart Heritage and Tourism Precinct, Smart Mobility (Sustainable Transport) and Smart & Sustainable Civic Infrastructure are merged with traditional infrastructures, coordinated and integrated using new technologies. The SCP also highlights the strategy through which citizens were integrated as a part of bottom up planning approach to develop SCP for Jaipur. Measureable impacts have been driven from recommendations provided under SCP.

Approach and Methodology

Jaipur has adopted bottom up planning approach to provide sense of ownership of SCP amongst citizens. The project has reached out to the actual beneficiaries in terms of setting up of vision for making Jaipur – A Smart City, identifying real issues faced by citizens of Jaipur on day to day basis and selection of area for Area based development (ABD). Goals and strategy were derived to achieve smart city vision. Through extensive citizen engagement and prioritising their issues, smart solutions were identified at Area based and Pan City level.
Conceptualising Jaipur

Overarching Vision Statement has emerged from initial consultations by understanding and mapping the aspirations of the citizen through conducting visioning workshop and study of previously prepared city documents, i.e. City Development Plan, Master Development Plan, Jaipur city self-assessment relating to its city profile and primary components.

Also, the Vision has evolved through and is validated by conducting extensive consultations by understanding and mapping the aspirations of the citizen. From consultations, fresh opportunities emerged on Heritage, Tourism, Civic infrastructure and Mobility for all.

“Jaipur Smart City aspires to leverage its Heritage and Tourism, and through Innovative and Inclusive solutions, enhance the Quality of Life for its Citizens”

The above vision statement for Jaipur relate specifically to the city’s profile and aspirations of citizen.

Citizen Engagement

The biggest challenge was to engage the citizens to arrive at the expected outcome and meet target of proposal submission within 100 days as per competition mandate. The Citizen Engagement strategy developed for Jaipur city aimed at achieving maximum contacts and include all groups of the community for deliberations, feedback and arriving to a common opinion. Three rounds were planned to be concurrent with the study phases - planning, proposal development and reflection phases. As a strategy, 14 modules were adopted for engagement during Round 1, 2&3 to have a wider outreach.

<table>
<thead>
<tr>
<th>Round 1 Planning Phase</th>
<th>Round 2 Proposal Development Phase</th>
<th>Round 3 Proposal Reflection Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting of Jaipur Smart Cell</td>
<td>Citizens insight on issues</td>
<td>Redefine proposal and inform stakeholders</td>
</tr>
<tr>
<td>Communication Strategy/ Brand/ Logo/ ICC</td>
<td>Area development and Pan city development proposal options</td>
<td>Take feedback on draft proposal</td>
</tr>
<tr>
<td>Campaign launch and citizen feedback on vision</td>
<td>Feedback and consensus building on preferred option</td>
<td>Submit final Jaipur Smart City Proposal to MoUD</td>
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<td></td>
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<td>Share final SCP with citizens</td>
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</table>

Logo competition under Citizen Engagement

An overwhelming response from citizens with 1, 47,421 suggestions (4.75% of total population) and a total citizen outreach of 16, 47,421 (53% of total population) ensured that the SCP is grounded on the citizens aspiration
Expected Impacts
Following are the impacts which are expected after implementation of proposed SCP for Jaipur:

<table>
<thead>
<tr>
<th>Governance Impact</th>
<th>Spatial Impact</th>
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<tbody>
<tr>
<td>• By implementing a GIS based property inventory and online payment of property tax, it is target to increase the revenue of the city from 15.2% to 25% via property tax collection</td>
<td>• Adaptive reuse of heritage buildings will help revitalize underused structures, create new tourism experiences into sites for performing arts; experience zones and markets built to international standards while retaining their unique traditional styles adding to tourism spend and days of stay, thus creating jobs and income growth. Currently 53,000 Sqm of area is visited by tourists, and with proposed redevelopment, it is expected to be 76,000 Sqm, i.e. 43.6% increase and hence additional 4 hours spent in the heritage precinct by each tourist.</td>
</tr>
<tr>
<td>• Single window clearance for projects in the area by the SPV shall reduce the time taken for building approvals and increase efficiency in administrative procedures. It is target to reduce approval time from 60 days to 30 days</td>
<td>• Undergrounding of remaining overhead electrical cables will reduce visual clutter from 90% to 100% coverage in the area by covering 3.2 Km of roads.</td>
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<tr>
<td>• Information Sharing and Electronic delivery of city services at smart Kiosks and Mobile applications to report traffic violations, solid waste issues and incidents to a single area command centre will provide an integrated response from the city administration which is currently missing in the city to 24 hours</td>
<td>• Creation of open space and lungs in the city (Jaleb Chowk, Talkatora Lake, 2 Bauri’s) from a current 2.3 Sqm/person to 3.0 Sqm/Person</td>
</tr>
<tr>
<td>• Unified transport management through JUMTA, common mobility card and real time information for all public transport modes will help integrate public and private transport operators. It is target to increase Public transport trip share from 21% to 40%</td>
<td>• Streetscape improvement by provision of uniform street furniture targeted in 100% of the area</td>
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<tr>
<th>Sustainability Impact</th>
<th>Social Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Promotion of sustainable modes of transport will save 702 tons of Carbon pa and we target to improve the air quality levels from 155 ug/m3 SPM10 to 60 ug/m3 CPCB.</td>
<td>• Encouraging and safeguarding walking improves safety and reduction of accidents involving pedestrians from 35 targeted to near zero accidents</td>
</tr>
<tr>
<td>• Around 3000 ECS and 46 smart digital signs will reduce idle KM spent by vehicles looking for parking space by 50%.</td>
<td>• NMT is usually used by economically weaker section and their promotion encourages social inclusiveness. The target is to increase the NMT vehicular share from 15% to 25%</td>
</tr>
<tr>
<td>• Four signalized traffic intersections will be synchronized to provide a ‘green wave’ to traffic improving traffic flow and reduce 70 tons CO2 pa.</td>
<td>• The area based development is designed to be barrier free targeted for 100% coverage which is currently zero</td>
</tr>
<tr>
<td>• Building adaptive reuse, targeted for 23,000 sqm is an alternative to traditional demolition and reconstruction that entails less energy and waste, planned as carbon neutral will save 3,220 tons of carbon.</td>
<td>• Inclusion of street vendors and setting up of a night market will provide opportunity to 700 vendors in night market and 1800 vendors in vending zone from current position of 1200 vendors operating informally in the area.</td>
</tr>
<tr>
<td>• 15% power of the energy needs from Solar is being targeted along with smart sensors for street and monument lighting from 0 to 2.03 MW</td>
<td>• With more eyes via vendors on the street, Panic Button, CCTV, Mobile App the area will be perceived safer, current crime rate in Jaipur is 780.6 per lakh population, the SCP aim at a reduction to 346 per lakh population (Urban Indian average)</td>
</tr>
<tr>
<td>• Smart water meters, waste water reuse, Rain water harvesting and smart toilets, will help manage water resources to a target of 100% metering from current service level of 40% metering, SMLD, reuse from 1 MLD reuse, and 12.5 ML rain water harvesting and 20 new smart toilets.</td>
<td>• Training of tourist guides and promotion of traditional handicraft and textile workers of 300 guides per year, hence 1500 trained Guides help improve their social status with access to better education, health care etc. improving their quality of life.</td>
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</tbody>
</table>

Recommendations
City self-assessment, SWOT analysis and citizen engagement brought out that the top concern identified by citizens were long commute times, lack of parking availability, walkability, long wait time at bus stops, unpredictable bus service, cleanliness and need to promote tourism. The strategic focus areas were arrived through understanding priority areas as well as capturing the aspirations of the citizens. The proposal was
divided in two parts, the area based development and the pan city development. The ABD proposal comprised of 22 sub projects which shall be implemented within 4 years from project start date. Sustainable planning was the backbone for all these proposals.

Main components of Area Based Development are:

<table>
<thead>
<tr>
<th>Smart Heritage and Tourism Precinct</th>
<th>Smart Mobility</th>
<th>Smart and Sustainable Civic Infrastructure</th>
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</thead>
<tbody>
<tr>
<td>• Adaptive reuse of heritage structures</td>
<td>• Multimodal integration of fare and physical design</td>
<td>• Waste water recycling and rain water harvesting for public buildings, monuments and parks</td>
</tr>
<tr>
<td>• Rejuvenation of T alkatora lake, Baoris</td>
<td>• Promoting and enhancing NMT mobility</td>
<td>• Efficient Water Management using smart meters and automated online residual chlorine monitoring system</td>
</tr>
<tr>
<td>• Heritage walks and Bazaar Street façade improvements, green roof tops</td>
<td>• Promoting walkability and ensuring barrier free access</td>
<td>• Smart toilets, smart collection of solid waste and citizen awareness campaign</td>
</tr>
<tr>
<td>• Integration with common mobility card for monument entry payments</td>
<td>• Public bike sharing</td>
<td>• Assured electricity supply with 15% from solar energy</td>
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<tr>
<td>• Heritage App with QR Code for monument information</td>
<td>• Smart signages for traffic/tourism</td>
<td>• Monument and street lighting using energy efficient lighting sensors</td>
</tr>
<tr>
<td>• Training and rating of Tourist guides, Tourism Police</td>
<td>• Intelligent parking system</td>
<td>• Safety of Citizens includes Video Crime monitoring, Incident alerts app, Helpline and SOS Mobile number, Panic Buttons</td>
</tr>
<tr>
<td>• Promotion of traditional handicraft and textile workers</td>
<td>• Common mobility card</td>
<td>• GIS based property inventory and online payment of property tax</td>
</tr>
<tr>
<td>• Night market and vending zones</td>
<td>• Smart IPT Stands and App</td>
<td>• Air Quality and weather monitoring with an App</td>
</tr>
<tr>
<td>• Tourist interpretation centre</td>
<td>• ITS for traffic signal synchronisation and bus information</td>
<td>• Information and electronic delivery of city services via smart Kiosk, for: Way finding and journey planning, Local information, Information related to Weather Conditions, Payment of Utility Bills</td>
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Key components under Pan City Solutions are:

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<th>Smart multi-modal mobility through ICT initiatives</th>
<th>Smart Solid Waste Management system</th>
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<tr>
<td>• To supplement ongoing initiatives in Traffic Management and expansion of bus &amp; metro network capacity; this initiative focuses on leveraging ICT and data driven measures for integration of fare management; transit operations coordination and scheduling; and Passenger information / Journey planning</td>
<td>• With emphasis on achieving public cleanliness, hygiene, sustainability and citizen participation; the initiative focuses on achieving a ‘Zero Waste’ City through – Operations monitoring of street waste collection and cleaning; performance management and optimization of transportation network; citizen reporting and formalizing waste recycling systems with citizen engagement.</td>
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</table>

All information, data and the article have been assimilated & written by Mr. Shubham Rathore. He is an Urban & Transport Planning professional in Mott MacDonald Group in India and has professional experience of more than five years in Urban Transport Planning, Infrastructure Planning and Project management.
“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is only thing that ever has.”

Margaret Mead

Progress on components and sub-components of SUTP June 2016:

Component 1A : Capacity Building of Institutions and Individuals:

Subcomponent 1 - Strengthening Institute of Urban Transport (India)

Knowledge Management Centre (KMC)

SAP License Agreement between GoI and SAP India was signed on 7th September 2015. Successful On Line Portal Hosting and Data Storage - Expected by 30th June 2016. Online portal setup & cloud hosting - Submitted on 30th March 2016. The portal is being reviewed & comments will be sent to the consultant. It would however be finalized only after incorporating the comments of stakeholder workshops. Data Collection for all the 46 cities completed and verification for uploading also completed. Database development & testing with data, from 2 pilot cities.

Training and Skill Development

Consultancy for Individual capacity development through training of trainers and training professionals (PC2):

Training of Trainers and Training of City Officials

As part of Training of city officials, out 1000 officials to be trained a total of 1021 officials have been trained.

As part of training of city officials, IUT has organised 23 training programmes at Shimla, Chennai, Bangalore, Hyderabad, Bhubaneswar, Pune, Kolkata, Guwahati, Ranchi, Chandigarh, Lucknow, Delhi, Ahmedabad, Jaipur, Thiruvananthapuram, Bhopal, Patna, Raipur, Delhi and Nainital.

Developing Toolkits

Consultancy for preparation of toolkits (PC3):

15 toolkits have been prepared by various centres of excellence. All the finalized toolkits have been uploaded on IUT website.

Dissemination activities (PC 4):

- Sixteen issues of GEF-SUTP Newsletter have been distributed to various stakeholders.
- Website (www.sutpindia.com) is updated regularly. The website has scored 37924 hits.
- National Workshop and Dissemination workshop on NMT, TOD & PBS was held successfully on 4th March 2016 and 21st May 2016 respectively.
- National Workshop to discuss generic UMTA & UTF generic operations document was conducted on 3rd March 2016 at Delhi.
- Two National Workshops and two dissemination workshops to discuss Guidelines and Model Contract document for Public bus operations was conducted on 12th & 30th April 16 and 6th & 7th May 2016 respectively at Delhi.
- Regional Workshop to discuss generic UMTA & UTF generic operations document was conducted on 18th April 16 at Hyderabad.
Component 1B: Technical Assistance to the MoUD for capacity enhancement at National, State and Local level for to implementation of National Urban Transport Policy

Component 2: Implementation of Demonstration

- UMTA, UTF manual & bill being finalised.
- Operations documents for TMICC & NUTH finalized. List of empanelled consultants for TMICC and NUTH available at – www.moud.gov.in
- Guidance document for NMT, TOD and PBS being finalised. All National & City specific workshops conducted
- Operations Manual for National Urban Transport Research Program has been approved by MoUD on 20th January 2016.
- Estimation of GHG emission reduction for five SUTP cities being done periodically.
- Leaders program for officials working in urban transport was conducted on 5 – 11 March 2016 at Dubai.
- Guidance document and model contracts for city bus private operators are being finalised.

Projects in Selected Cities

Naya Raipur-BRTS
The two major works package on Bus Rapid Transit (BRT) and Non-Motorised Transport (NMT) infrastructure are ongoing. The contract for Intelligent Transport System (ITS) has been awarded. BRT lite expected to be launched by end of 2016.

Pimpri-Chinchwad-BRTS
The flyover on Corridor 3 i.e. interchange section at Nashik-Phata is substantially complete and open to traffic. The pace of work at the Empire Estate interchange has picked up but will take time to complete. BRT station contract packages are ongoing on both corridors. Corridor 2 & 3 were launched on 5th September 2015 and 28 November, 2015 respectively and the corridor 4 is expected to be launched by end of 2016.

Indore-ITS
Out of four technical assistance activities, one activity has been awarded and Procurement is ongoing for remaining three.

Mysore-ITS
KSRTC issued operational acceptance with effect from 1 October 2015.

Hubli-Dharwad BRTS
Work on Depot, Terminal, NMT and BRT station and key consultancy services ongoing. The package for ITMS published.

Mysore PBS
Contract for Procurement, Installation and Operation of Public Bicycle Sharing System in Mysore.
You are not stuck in traffic. You are traffic.

Tom Tom satnav advertisement (2010)

Upcoming Events

- Long duration Leaders program for officials working in urban transport is being planned from June – December 2016 at CEPT Ahmedabad

For further details contact at: iutindia.sutp@gmail.com

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“You are not stuck in traffic. You are traffic.”

The Brundtland Commission, 1987