GEF–SUTP (India) Quarterly Newsletter  
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SGF–World Bank–UNDP supported

Seasons’ greetings to all our readers!

Sustainable Urban Transport Project (SUTP)

SUTP, an initiative of the Government of India, assisted by GEF, World Bank, and UNDP aims at strengthening capacity in the Government, participating states and cities in planning, financing, implementing, operating and managing Sustainable Urban Transport Systems; also to assist states and cities in preparing and implementing select demonstration “Green Transport” projects for reduction of greenhouse gases in urban environment. The Project objectives support implementation of the National Urban Transport Policy (NUTP), particularly the aspects that emphasise priority to public transport usage and to non-motorised transport.

Project Update

Reflections

SUTP is nearing towards end of fourth year of implementation. Out of forty four studies and consultancies, thirty four have been awarded till date, five have been completed and ten consultancies are in stage of procurement. Of the Eighteen Goods & Works procurement packages, eight have been awarded, one is complete and nine are in various stages of procurement.

Each of the five demonstration cities have made progress, although issues regarding safeguard remained a cause for concern. In Pimpri-Chinchwad; the civil work of Nashik Phata Flyover is substantially complete and the Empire Estate Flyover contract progress continues to be slow though recent indications that it will now improve are encouraging. In Naya Raipur, Hubli-Dharwad and Indore, procurement of major contract packages are underway. On the training front, as part of Capacity Building, 1732 participants have been trained under SUTP in various workshops & training programs on urban transport.

Events

National Workshop on Program Evaluation of Bus Deployment by Cities under JnNURM

The study, Program Evaluation of Bus Deployment by Cities under JnNURM, aims to analyse the impact induced by the JnNURM bus funding scheme on city commuters and public transport efficiency and also provide recommendations for national policies and strategies that would assist in deciding future course of funding related to city buses. It is guided by following set of four key objectives:

1) Ascertain impact induced on public transport system performance
2) Ascertain impact induced due to related reforms
3) Ascertain impact induced on commuters and
4) formulate relevant national strategies and policies.

Two one day long National Workshops for the study were organised by Project Management Unit, Sustainable Urban Transport Project (SUTP), MoUD with support of the consultant, on 4th & 5th April 2014. The workshops aimed to decipher the findings of the State-of-the-Art review conducted on six international cities as well as to validate shortlisted indicators and impact evaluation methodology for the study.

During the Workshop, primary and secondary data collection formats were also circulated and discussed with the participants so as to incorporate their recommendations prior to commencing sample city visits in the next stage. The workshops were presided over by eminent dignitaries. Shri Sudhir Krishna, the then Secretary (UD); Shri C. K. Khaitan, Joint Secretary (UT); Shri R. K. Singh, Director (UT); Shri I. C. Sharma, National Project Manager, PMU and Ms. Nupur Gupta, Team Leader, World Bank chaired different sessions. The workshops were attended by 122 participants from different cities, NGOs, and other stakeholders. Table 1 presents various types of organisations represented during the workshop.
"Number of people transported is more important than number of vehicles transported"

National Transportation Policy, 2006, India

Key takeaways of the workshop can be segregated into three broad categories.

- First, it was appreciated that bus users take the centre stage in this scheme. Their commuting requirements and satisfaction level is of paramount importance and should be given due cognizance in this study. Non-government Organisations (NGOs) pointed out the impact of providing universal access to under-privileged group of users and appreciated that the study would take into consideration feedback from all such users throughout the country.

- Second, Urban Local Bodies (ULBs) pointed out that detailed consultations with concerned departments would bring out issues and problems encountered in procuring buses under this scheme. It was brought out that practicalities of pre-requisites like Transit Oriented Development (TOD) policy, Intelligent Transport System (ITS), Traffic Management and Information Control Centre (TMICC), Non-motorised Transport (NMT), etc. need to be considered and guidelines may be suggested for these. The ULBs pointed out that the lack of contract guidelines for procurement as well operation and maintenance of buses sometimes led to technical and legal issues between the ULBs and operators/bus manufactures. PMU for SUTP mentioned these aspects are already being addressed under SUTP.

- Private bus operators and manufacturers provided their share of concerns suggesting the scope for design improvements in the buses to increase comfort of passengers and bring down manufacturing costs. Operators pointed out that impact on financial performance of bus operators may be analysed if taxes are either made exempt or reimbursed.

### Capacity Building Programme – Building Leaders in Urban Transport Planning

**Transport Planning Programme** held in UITP, MENA – CTE Dubai from 7th to 13th June 2014

The Ministry of Urban Development, Government of India nominated officials for participating in Leaders Programme in Urban Transport Planning from 7th to 13th June, 2014. The programme was organized jointly by the World Bank and UITP (an International Association of Public Transport). The objective of the programme was:

1. To help build capacity for holistic and comprehensive planning at leadership levels.
2. To create awareness of what integrated mobility planning involves, what are its different components and how it needs to be undertaken.
The Workshop used “Hands on” learning approach, making extensive use of case studies, group exercises and site visits. This aimed at highlighting linkages of different components of Urban Transport System. The workshop was preceded by 5-week-self-learning stage. The workshop was sought to bring all the features together through case studies and group works covering the following topics:

- Diagnosing the key problems being faced by a city
- Systematic approach to integrated mobility planning
- Corridor management
- Public transport planning and evaluating alternatives
- Role of Governments.
- Financing and PPP

The profile of the participants included the categories of policy makers and planners from national, state and city level governments who are responsible for “putting the pieces together”. The programme was useful to the participants from civil society, consultants and professional staff of consulting companies from different countries like India, Dubai, Bahrain, Nigeria, Abu Dhabi, Australia, Finland etc. The potential faculty were drawn from local training institutions, Harvard University USA, Korea Transport Institute, World Bank, Dubai Roads and Transport Authority and International Association of Public Transport.

Of the various presentations done a presentation was made on Evolution of Urban Transport in Dubai by Shri Abdul Aziz Malik, Chairman of RTA, Dubai. The Roads and Transport Authority (RTA) was formed by the decree number 17 for the year 2005. Dubai is one of the fastest growing cities in today’s world, making the provision of high quality infrastructure facilities absolutely imperative. Therefore providing an advanced transport network for the people of Dubai has been high on the government’s agenda, and it is evident from its initiatives taken to enhance the public transport facilities and improve roads across the emirate to make travel safer and smoother. RTA is responsible for planning and providing the requirements of transport, roads & traffic in the Emirate of Dubai, and between Dubai and other Emirates of the UAE. Its mission is to develop integrated and sustainable transportation systems and provide distinguished services to all stakeholders to support Dubai’s comprehensive growth plans.

Day 2 focused on the Jakarta case study by Prof. Jose Gomez-Ibanez, Harvard University, USA. It was discussed that there is inadequate length of highways and high capacity buses to cater to the problems of urban commuters. It was emphasized that a proper land use planning and introduction of congestion charging would help reduce the traffic chaos. Mr Sam Zimmerman made a presentation on Demand Management.

Day 3 focused on integration of transport and land use planning, and case discussions. The participants were also taken to Dubai Metro Tram, which is yet to be launched.

Day 4 started with debriefing on site visits followed by presentation on integrated transport planning and alternatives analysis. It was discussed that during implementation of BRT in phase-I in Bogota-Transmilenio, the journey time reduced to 16 minutes and speed increased to 36 km per hour from 12 kph. The reduction in pollution level and accidents also decreased to some extent. Whereas in Phase-II the cost was doubled, that forced the authority to increase the fare. The exercise on transport system integration was also discussed. The day ended with site visits of Taxi services.

Day 5 covered public Transport Management and Regulation. The bus services in HO Chi Minh city was presented by Prof. Jose Gomez-Ibanez. The percentage of trips in HO Chi Minh City by Mode used was also discussed and it was resolved that the bus would remain the main alternative to the motor cycle and the car, even if all the six metro lines came up.

Day 6 started with discussing the key issues of public transport challenges of Lagos included congestion, rapid population growth, bad road condition, multiplicity of institutions, weak technical capacity and multiple operators. It was pointed out that LAMATA should capitalize the issues which create public values such as good roads, BRT system, new buses, strategic plan and capacity building.
The International exposure to Urban Transport Planning was a learning experience for the undersigned at international platform, where number of participants from different countries shared their views and deliberated the issues relating to the urban transportation problems of their respective countries. The modules prepared by the World Bank were of high standards which gave many insights to real problems that will be useful to government officials.

**Looking forward**

- World Bank launched new LUTP programme for the senior govt. officials at LTA-Singapore during 19 to 24 January 2015. PMU shared invitation letters to all states and UTs on 1 Oct 2014.
- A training programme for city officials under component 1A, PC2 is also placed at regular interval.

**Articles**

**Development of Preparing Guidelines & Model Contract for City Bus Private Operations**

**Project Background and Need**

Among various modes of public transport available to Indian population, buses form a significant part and cater to more than 90 percent of the total public transport in India. In cities with poor public transport systems, para-transit and private modes of transport are much more common. Intermediate public transport systems like tempos (three-wheeled buses), autos, and cycle rickshaws help meet the demand in medium-sized cities.

Further, considering the financial health of various levels of governments (central, state, and local governments) and investment required to introduce and improve rail based public transport system, it is evident that bus transport will continue to play a major role in providing passenger transport services in all cities. Therefore, urban transport plans needs special emphasis on bus transport system. However it emerges that declining share of bus transport over the years, which is adversely impacting the health & quality of life as well as leading to serious social & economic concerns. A cross-country comparison of buses indicates that the bus penetration in India and its major cities is much lower as compared to some developed countries like Australia, Japan, UK and USA and other developing countries like Brazil, China, Malaysia, Mexico, South Africa and Thailand etc.

**Key Challenges in City Bus Transport in India**

This sector is highly unorganized, with many regulated and unregulated operators competing for providing Public Transport services. While a number of cities have organized bus transport services, other cities have unregulated forms of private bus services plying on city roads.

Considering the current market scenario across most Indian cities, it is understood that both regulated and unregulated bus operators provide city bus services, often competing for fares & passengers. Operators compete aggressively to attract additional passengers, leading to incidents of improper road discipline, accidents and fatalities. Also, in order to limit operational costs, private operators typically utilize poorly maintained, unsafe & polluting vehicles, further increasing traffic congestion and passenger fatalities.
In order to address these challenges, a number of cities have come up with contracting arrangements for improving bus transport services. By way of involving the private sector through the PPP route, the public sector agencies envisage to extract stronger managerial capacity, access to new technology and specialized skills. However, though operational, such public private partnerships have been experiencing issues on account of revenue generation, quality of services offered, monitoring of actual services, etc. Consequently, the degree of successful implementation of PPPs has been limited. Also, it is evident that the contracting arrangements are trending towards gross cost which means that the revenue risk is with public authorities. Even though the risk is increasingly shifting towards the public agencies, the quality of services has not improved commensurately. The reason behind this is lack of comprehensive contractual framework defining operational mechanisms. Most Indian cities do not have sufficiently comprehensive contractual frameworks necessary for proper implementation and operation. Important clauses such as conditions precedent, comprehensive monitoring framework, quantitative measurement of performance, well-defined payment mechanisms etc. are lacking in the existing contractual frameworks. Also in many cases the existing contractual frameworks do not have proper incentives and motivators to influence the behaviour, responsibility and obligations on each contracted party. The government, therefore, intends to adopt a structured approach to create an enabling environment for private investments and efficient bus operations.

**Project Objective**

The MoUD has therefore noted that even though most public authorities function within a defined purview of socially equitable and agreeable operational guidelines for providing city bus transport, it procures services of private sector through poorly regulated contractual frameworks. This results in poor service from private operators. In order to limit operational costs, private operators typically utilize poorly maintained and unsafe polluting vehicles, further increasing traffic congestion and passenger fatalities. While these bear a direct impact on the users of city bus services, the lack of regulated, standardized, contractual frameworks has indirect impacts, such as negative impacts on environment and additional safety problems.
In this context, the MoUD has appointed M/s Deloitte Touche Tohmatsu India Pvt. Ltd. to provide consultancy services, as part of which the Consultant shall review the current public transport contracting experience in India and recommend an appropriate/modal framework for engagement of private transport service providers, through publicly contracted mechanisms. The role of the Consultant is also to develop model contracts for procurement of private bus service operators that are generically applicable in the Indian context and can be customized to suit the PPP procurement for select cities, special purpose vehicles (SPVs) and newly formed Unified Metropolitan Transport Authorities (UMTAs).

The consultant would carry out a state of art review in various Indian and International cities agreed upon in consultation with MoUD and World Bank to understand the contractual frameworks used in these cities for city bus operations and their impacts on bus operations.

The key findings and proposed contractual frameworks would be discussed with all the states, UTs and million plus cities in various Workshops which is to be held on 30th & 31st October, 2014. A tentative schedule for Workshops with brief description is provided below:

<table>
<thead>
<tr>
<th>Workshop name</th>
<th>Tentative Timelines</th>
<th>Venue</th>
<th>Description of workshop</th>
</tr>
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<tbody>
<tr>
<td>City Specific Workshops</td>
<td>February – March, 2015</td>
<td>Three Workshops in each of three cities to be identified during the course of project.</td>
<td>Sharing the learning from the project through presentation on the MCA for city bus transport with recommendations specific to each city.</td>
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**Articles**

**RAAHGIRI DAY: APNI RAHEN, APNI AZAADI**

17th November 2013, was a groundbreaking day in the history of Gurgaon, when 10,000 people came out of their houses to enjoy the **country’s first ever car-free Sunday**. Raahgiri Day had arrived! Without vehicles dominating the streetscape, pedestrians, cyclists, and runners all converged on the streets; children took the opportunity to play soccer, cricket, and badminton; skating enthusiasts honed their skills; and fitness enthusiasts enjoyed Zumba classes.

Ever since then, about 3.5 lac people have participated in this movement, which happens every Sunday for 4-5 hours in the morning on dedicated stretches of roads which are blocked for motorized traffic and opened for people. Along with getting extensive media coverage, Raahgiri Day has been chosen as one of the 24 most inspiring stories for “Pathways to Green Cities” by the Global Advisory Committee of The
Earth Day Network. It has also won the early-bird prize for UL and Ashoka Changemakers: Safer Roads, Safer India Competition and has been selected as one of six most innovative solutions in addressing road safety.

**Poor NMT infrastructure in Gurgaon, spurs the need for Raahgiri day**

According to the Integrated Mobility Plan of Gurgaon, the mode share of walking, pedal cycle and cycle rickshaw in Gurgaon is 23%, 8% and 2% respectively, which makes the total mode share of cycling and walking in the city equal to 33%.

Even with 1/3rd of population in Gurgaon walking or cycling to meet their mobility needs (especially shorter distances of up to 3-4 kms), Non-Motorized Transport facilities are non-existent in the city. Practically no separate lanes are available for Non-Motorized Vehicles, which forces them to share the main stream with vehicular traffic and leads to unsafe traffic conditions on roads. With almost all infrastructure designed only for cars, data shows that on an average there is 1 pedestrian/cyclist death in Gurgaon every day.

It is clear, that we need to re-look at the way we are looking at mobility and city design because the status quo is not sustainable at all. Raahgiri is an attempt to reclaim what belongs to people; to build a city with bicycle paths and pedestrian avenues interwoven through its urban landscape.

**The Story behind Raahgiri Day**

The conceptualization and planning of Raahgiri Day in Gurgaon goes back over an year. Local inhabitants from five organisations – EMBARQ India, IAmGurgaon, Pedalyatri, Duplays Gurgaon and Heritage School, who could no longer sit back and watch their city die, joined hands to create a new future for their city. With the backing of the local administration - The Municipal Corporation of Gurgaon (MCG) and Gurgaon Police there was a commitment to create an example of a clean, green and sustainable city.

Raahgiri Day is modelled after Ciclovia, an event that began in Bogotá, Colombia in 1976, which closed streets to cars and opened them for the exclusive use of people. Today, up to 2 million Bogotá residents from all walks of life still enjoy over 70 miles of car free streets every Sunday. In order to choose a more Indian name for Gurgaon's event that would resonate with the city's residents, the founders selected “Raahgiri” – a term that brings two ideas together. Raah refers to a path or journey towards a final goal, and Gandhigiri is a colloquial adaptation of Mahatma Gandhi’s transformative technique of non-violence. In a city like Gurgaon, where car use is on the rise, the objective of Raahgiri Day is to encourage people to ditch their cars, and promote physical activity by influencing residents to get up, get out, and get moving.

**Impact of this Movement in Gurgaon**

Raahgiri Day in Gurgaon has been a huge hit with residents of Gurgaon and has also had a positive impact on attributes like Road Safety, Physical Activity, Air & Noise Pollution and Local Business!

Close to 500 people die in Gurgaon every year on account of poor road safety, majority of them are pedestrians and cyclists. There has been a remarkable impact on road safety at the Raahgiri stretch (Sushant Lok area) since the event has begun. It was found that there were 5 road fatalities in the Sushant Lok area from Jan-Oct 2013. However, since the event began in November 2013, this number has come down to zero. This is also to do with the phenomenal support and participation from Gurgaon Police, who conduct activities at Raahgiri Day every Sunday to generate awareness around road safety.
Another unexpected outcome of Raahgiri Day is the increase in bicycle sales in Gurgaon. “The biggest deterrent to using cycling as a mode of transportation in cities is the non-availability of a cycle itself”, says Amit Bhatt. In our survey, out of a sample size of 185, 28% of respondents said that after experiencing cycling on Raahgiri Day, they now own a bicycle; 59% said they now cycle/walk to the Raahgiri venue, while a substantial 87% said they now cycle/walk to cover shorter distances.

According to the survey, 31% people said that they came with friends, and 53% said that they came with their families. For a city like Gurgaon, which is dominated by condominiums and huge segregated private properties, Raahgiri Day gives residents an opportunity to meet and greet new people and has instilled a sense of belongingness amongst them. “Instead of sleeping it over, we now prefer to come to Raahgiri Day on Sunday mornings. The sight of all these young kids jumping and dancing, and bands performing is infectious”, says a Raahgiri patron.

On Raahgiri Days, the streets have shown a 49% reduction in exposure to PM 2.5 as compared to Weekdays and 24% reduction with regards to Non Raahgiri Sundays. PM 2.5 is one of the major health hazard pollutants that is emitted from Motor Vehicles. Raahgiri Day has also impacted the local business with shop owners reporting 14% rise in footfalls and 29% increase in sales.

Expanding Beyond Gurgaon alongside Building A Strong Future for the Country

Raahgiri Day began by blocking 4.8 km of roads in the Gurgaon. But, inspired by Gurgaon, enthusiastic citizens in other parts of the country are also following suit. Ludhiana became the first city after Gurgaon to have implemented sustained car-free Sundays, followed by Navi Mumbai and Bhopal. But the biggest leap for the movement was scaling it from a city of 800K – Gurgaon, to a city of 22 million - Delhi. Not only this, on 16th November, 2014, Raahgiri Day completed one full year in Gurgaon and also saw more cities on the Raahgiri block, including Mumbai and Ahmedabad.

The success of Raahgiri Day in Gurgaon over this last one year has shown that if people are provided with safe, high-quality infrastructure, they will cycle. This has been also welcomed by the authorities of Gurgaon, as they finally initiated its much-discussed plan of installing cycle tracks in Gurgaon, covering an area of 8 km from Huda City Centre to Golf Course Road Extension. But this is only the beginning! The end goal is to have pedestrian and cycling friendly infrastructure laid over the entire city and to have safer roads for all!

While talking about the expansion Amit Bhatt says, “Raahgiri / Ciclovia is not an end but a means toward an end, which is sustainable development. Ciclovia led to construction of permanent bikeways (now 320 km network) and sidewalks (all over the city) in Bogota. We hope what Ciclovia did for Bogota, Raahgiri will do the same for India; our cities will have better infrastructure for active commuters and better quality life for our children”.

All information, data and the article have been assimilated & written by Kanika Associate at Capacity Building at WRI India. She works with the capacity building, knowledge management, communications and events teams on various activities like training, web content development, website design and management, social media outreach, stakeholder consultation and research
Mysore Intelligent Transport System (ITS) for City bus services

Implementation of Intelligent Transport Systems at Mysore City is a pioneering effort by Karnataka State Road Transport Corporation (KSRTC) to accelerate modal shift from personal use of vehicles to public transport system and lowering pollution levels, by offering high-class services through state-of-the-art technologies. Working towards this goal on high priority, KSRTC has implemented Intelligent Transport System (ITS) project at Mysore City covering 500 buses, 2400 bus stops, 6 bus terminals, 45 platforms.

KSRTC's ITS project is a demonstrative project and the first of its kind in India for the complete implementation of the system for city operation bus services implemented under the Sustainable Urban Transport Project (SUTP) with financial assistance from Government of India, World Bank’s Global Environment Facility Fund and Government of Karnataka - KSRTC. The project is implemented at an estimated base cost of INR 20.13 Crores.

The ITS project implemented at Mysore addresses the critical issue of road congestion by offering state-of-art technologies and attractive, convenient, comfortable, value added services to encourage the usage of bus services against individual personal vehicles. The ITS project implemented at Mysore addresses the critical issue of road congestion by offering state-of-art technologies and attractive, convenient, comfortable, value added services to encourage the usage of bus services against individual personal vehicles.

Key Objectives identified to address the business needs are:

- To establish an intelligent system to improve quality & convenience of public transport system in Mysore city and ensure the delivery of safe, fair, reliable and environment-friendly transport system
- To promote use of sustainable transport modes and enable commuters to make informed choices on travel modes by developing an integrated network in an effort to reduce passenger wait times
- To optimize operations, improve fleet utilization, schedules, and vehicle availability with accurate information

The main sub-systems of the project are:

1. Automatic Vehicle Location Information system (AVL-IS)
2. Passenger Information System (PIS)
   a. Information Display services: in-vehicle
   b. Information Display services: Bus stops
   c. Information Display services: Bus Stations / Terminals / Stands & platforms
   d. Information Display Services: Special locations
3. Automated Voice Announcement System
4. Central Control Station (CCS)
5. Enterprise Management System
6. MIS Reports

Building intelligence into the transport system brings in the convergence of technologies providing a synergetic transformation in the commuter experience. ITS provides benefits in terms of Reduce waiting time and uncertainty, Increase the accessibility of the system, Increase the safety of users, Reduce the fuel consumption and emissions, Reduce the operational costs, Improve traffic efficiency, Reduce traffic congestion, Improve environmental quality and energy efficiency, Improve economic productivity.

The core proposition is to improve the attractiveness of the public transport, thereby gaining new users from private transport and retaining existing users. Provision of easily accessible relevant travel information to passengers before and during their journeys is seen as a major basis for increasing attractiveness of the public transport offer. With this background, KSRTC implemented the ITS Project at Mysore City conforming to Standard Practices in providing efficient operation and management of bus services.
“We can constantly make new things but we can't make a new world”

Kentaro Matsuura

The value additions / best practices include: (1) full fledged SMS and IVRS, (2) Branding of the project – MITRA, (3) Passenger Friendly Commuter Website – http://mitra.ksrtc.in in English and Kannada, (4) Capacity Development – Exposure to KSRTC officers and staff for handling Project Management professionally, (5) an independent Monitoring and Evaluation Consultancy to track the reach of project objectives to public, (6) Decision enabling MIS Reports, (7) Multi-functioning of Central Control Station, (8) Instructions Manual for Crew and Staff, (9) High end Video-wall with value added GIS Map, (10) Two way communication between driver in bus and Central Control Station, (11) Expected time of Arrival and Departure based on real time data, (12) Get bus schedule details through IVRS and SMS, (13) Voice announcements of current and next stops in English and Kannada, (14) Alerts from Buses during emergency situations, (15) Effective route diversion, (16) Re-scheduling of busses, (17) Create and upload files over the air to GPS unit, (18) Generate reports and make informed decisions, (19) Effective monitoring of software and hardware components, (20) Streaming video to terminal display units and appointment of consultant to prepare comprehensive service and operations analysis.

The real time tracking of buses provides the complete control over bus operations to the operator-i.e. KSRTC. Before implementation, the information was not available to the organisation and public complaints used to be more. With the ITS System implemented, crew know that they are being tracked, operate as per the correct time table and citizens are getting proper service.

The data generated from ITS System is helping KSRTC to rationalise its schedules in optimum way. The ITS data logs have enabled KSRTC to match the demand with supplies. It invariably helped KSRTC to increase the revenue and control the cost. The real time information has helped citizens to rely on bus services without opting for private or para-transit modes of transport like Taxi and auto. The commuters are making use of SMS and IVRS facilities to a maximum extent. The features available for commuters include:

- In-Bus & Bus Stop Solution
  - In-Bus real time audio & video bus stop information
  - Real-time Expected Time of Arrival (ETA) information at bus stops
- Commuter Portal & GIS Application
  - Bus Stop, Route search facilities
  - Bus Fare, Route Map information
  - Search facility for Buses – Route and Bus stop Based
  - Real time Bus position & ETA information on GIS maps
- Improve economic productivity

Traffic Police is using the ITS data for planning traffic movement across the city and effected many changes post ITS implementation. The software application provides many value added features like alerts in case of deviations of buses from the scheduled routes etc. The various customised and decision enabling MIS reports generated for analysis include:

- Driver duty performance
- Route deviation Report
- Improper Stoppage Report
- Missed Trips Report
- Harsh Acceleration / Braking Report
- Trip Adherence Report
- Bunching of Buses
- Bus stops Skipped Report
- Speed Violation Report
- Bus Breakdown Report
- Schedule Adherence Report
- Depot Punctuality Report
KSRTC has won prestigious national and international awards for the successful implementation of this project. With the objective of ensuring high quality output, KSRTC in addition to hiring the project implementation vendor, has also engaged Project Management Consultancy (PMC) for ITS and a Monitoring & Evaluation (M&E). While the PMC provided ITS expertise and oversight for the project; the M&E consultants are providing guidance on the benefits that the ITS project accrued for KSRTC through their evaluation over the three years.

All information, data and the article have been assimilated & written by KSRTC

Progress on components and sub-components of SUTP till October 2014:

Component 1A : Capacity Building of Institutions and Individuals:
   Subcomponent 1 - Strengthening Institute of Urban Transport (India)

   Strengthening of IUT
   As part of this, the training programme for IUT staff has been organised for to enhance knowledge on BRT operations and integration of systems. A software training program on VISSUM was also conducted by PTV vision.

   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 this, training programme for IUT staff has been organised for to enhance knowledge on BRT operations and integration of systems. A software training program on VISSUM was also conducted by PTV vision.

   Developing Toolkits
   Consultancy for preparation of toolkits (PC3):
   5 additional toolkits are taken up under sub component PC3 which are Revision of CMP guidelines, city transport network, Urban mobility laws, Urban Freight Management and ITS for public transport and BRT.

   Dissemination activities (PC 4):
   Thirteen issues of GEF-SUTP Newsletter have been distributed to all stakeholders.
   Website (www.sutpindia.com) is modified and updated regularly. The website has scored 27168 hits.

Component 1B: Technical Assistance to the MoUD for capacity enhancement at National, State and Local level for to implementation of National Urban Transport Policy

   Progress
   • Draft UMTA manual & bill prepared
   • Draft Generic Operations document for TMICC & NPTH prepared
   • Manual for National Urban Transport Research Program prepared
   • Draft guidance document for NMT, TOD and PBS prepared
   • Estimation of emission reduction for five SUTP cities done
   • Leaders program for officials working in urban transport ongoing
   • Data collection for 31 cities un JNNURM bus funding on going
   • State of art review completed for preparation of model contracts for city bus private operators
"We must become the change we want to see."
Mahatma Gandhi

Component 2: Implementation of Demonstration 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 albeit with slow progress. The tender for Intelligent Transport System (ITS) has been issued. The approval for the pick-up point at the Raipur Railway Station is in place and detailed designs prepared. Many of the recommendations of the Transit Oriented Development (ToD) study have been approved by the NRDA Board and proposed to the state government for approval.

Pimpri-Chinchwad-BRTS
The flyover on Corridor 3 i.e. interchange section at Nashik-Phata is substantially complete and opened to traffic. The entire corridor is 78% complete and expected to be substantially complete by December 2014. Meanwhile, the work on corridor 4 is progressing slowly and is 45% complete. The interchange at Empire Estate, is at only 42% financial progress. The pace of the Contractor for Empire Estate interchange appears to be picking up but will take time to complete. BRT station contract packages are ongoing on both corridors.

Indore-ITS
The procurement of ITS for BRTS procurement of consultants for BRT Accessibility Plan is ongoing.

Mysore-ITS
Many of the problems encountered by the ITS system for Mysore city bus have now been addressed. Operational acceptance is expected soon. Comprehensive Services and Operations Analysis (CSOA) study to improve bus operations is ongoing.

Hubli-Dharwad-BRTS
Procurement of depot, terminal, NMT and BRT station works and key consultancy services under the project have been concluded. Procurement for the construction of BRT road package in Hubli is ongoing. The packages for foot-over-bridges, road works in Dharwad, and ITMS are being finalized.

Upcoming Events
Leaders Program in Urban Transport Planning and Management (LUTP) for the senior govt. officials at LTA Singapore in 19-24 Jan 2015
Mysore ITS workshop and World Bank mission in December 2014

Calling comments & suggestions on
Unified Transport Metropolitan Authority Manual & Bill
Developing Operations Documents for Traffic Management and Information Control Centre (TMICC) and National Public Transport Helpline (NPTH)
Developing Guidance Documents for Non-Motorised Transport (NMT) Plan, Bike Sharing Scheme and Transit Oriented Development (TOD)

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“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”
The Brundtland Commission, 1987