CIDCO Smart City Chair at NIUA

In July 2014, CIDCO established the ‘CIDCO Smart City Chair’ at the National Institute of Urban Affairs (NIUA). The Smart City Chair is a research and capacity-building unit aimed at supporting CIDCO’s technical personnel through action research, documentation and capacity building with a particular focus on the development of ‘smart cities’.

Between November 2014 and March 2015, the team took on diverse activities. In March 2015, a consultative workshop was organized in collaboration with CIDCO to assist their planners in strategic planning for the Jawaharlal Nehru Port Influence Area. Using socio-economic survey data collected by CIDCO every 5 years (between 1995 and 2010) the team undertook an analysis of urbanization trends in the planned nodes. NIUA has also initiated, in joint collaboration with the Royal Institute of Chartered Surveyors (RICS), a study on the impact of increasing Floor Space Index (FSI) in the gaothans area. A training calendar for the entire year has been developed to help facilitate the training needs for CIDCO personnel. This newsletter aims to capture and disseminate information on these activities, upcoming workshops and smart city ideas worth sharing.
Planning Workshop for JNPTIA

Collaboration with stakeholders and long-term planning of land use in the Jawaharlal Nehru Port Influence Area crucial for deriving maximum benefit for the city of Navi Mumbai

Motivation and themes for workshop on planning for JNP Influence Area

Navi Mumbai’s close proximity to Jawaharlal Nehru Port (JNP) brings tremendous potential for economic growth in the region. However, it has also brought with it environmental and planning concerns. In recent years, with the port expanding its operations, problems of traffic congestion and parking have emerged on the nearby highways and surrounding villages that have a severe impact on mobility in the area around Navi Mumbai. This is undesirable from an economic and environmental point of view. With the port likely to expand operations to double its current capacity, the demands on the surrounding areas will increase significantly.

On March 2nd & 3rd, 2015, the Smart City Team assisted CIDCO in organizing a stakeholder consultation and planning workshop to discuss challenges faced in urban planning in and around major ports with a focus on the Jawaharlal Nehru Port Influence Area. The workshop was organized to support the planning activities of Additional Chief Planner Ms. Aparna Vedula for planning land-use and allocation of resources in the influence area of the port. The discussions were focused on helping orient the planning towards providing adequate services to the port while meeting local development priorities without compromising the natural environment. The speakers at the workshop included leaders of industry associations, private sector consultants in port management and planning, experts from academia and representatives of various ports and port cities across India including JNP.

The key themes of the workshop were

1. Understanding port operations and the logistics chain
   - Understand port operations from the perspective of the demand on resources on the immediate areas within boundary of the port.
   - Clearer understanding of the optimum use of land and infrastructure within the bounded area of the Port.
   - Identifying the stakeholders involved in port / logistic operations and their responsibilities / jurisdiction to help in introspection over, and optimisation of, incumbent processes and practices.

2. Symbiotic relationship – Port and its City
   - Explore the preconditions of a symbiotic and harmonious relationship between the port and its city / influence area.
   - City authorities perspective on how to meet such expectations while prioritising perennial goals of environmental sustainability, liveability and demands posed by other competitive land uses.
   - City’s expectation from the port in bolstering the local economy through various means such as providing jobs, resources and attracting investment.

3. Industry Perspective and Best Practices
   - Problems faced by the Ports/Logistic Industries and showcasing best practices from the industry perspective.
   - The implications of the development of new and modern ports over their respective influence zones - whether such areas are being simultaneously planned as full-fledged urban areas or are being left to their own devices in their inevitable transition from rural to urban.
Key recommendations that emerged from the workshop

For JNPT
- Use of ICT to increase efficiency.
- Sea-use planning of waterways and inland water transport systems.
- Improved turnaround time and inter-terminal movement
- Begin transition from current rail to road share of 35:65 towards global best practice of 80:20
- Consultation with Traffic Police department while deciding schedules and traffic diversions for development works at the ports
- Port Community Software System that already incorporates NHAI and JNPT to be expanded to include Bombay Custom House Agents Association, Traffic Police and Transportsers Association.
- Development of mobile app with access to every stakeholder
- Clustering of port activities and procedures and reflect the same in projections for traffic and space requirements.
- Wind energy resource to be developed along waterfront for electricity.
- Community Outreach Program with recreational activities may be allowed inside the port.

For CIDCO
- Review existing facilities in immediate surroundings and provide ancillary facilities required by all stakeholders.
- Review of the use of space within the Container Freight Stations (CFS).
- Review of existing parking spaces (Temporary/ truck terminal) under BOT.
- Planning and development of internal roads to segregate local traffic from high speed vehicles.
- Priority actions - making provisions for repair services and installing adequate lighting.
- Seperate provisions for empty container yards with exclusive connectivity.
- Provision of space for Customs House Agent (CHA) and Traffic Police in parking yard.
- ‘Hub and Spoke’ concept of planning - Spread dry ports into the region and ensure exclusive connectivity. Dry port of different sizes can be spread into the region/influence area in Navi Mumbai, Khopta and NAINA. The dry ports should explore, to the extent possible, railway connectivity and multi modal dispersal.
- Segregation between port and allied activities area and main residential area is recommended based on the local geography. There should be an immediate buffer zone around the port containing theme parks, tree belts, museums showcasing port activities as part of the outreach program. Before the main residential area begins, 3 to 5 kms should be left aside for port related activities.
- The feasibility of adopting the NAINA land acquisition model for creating dry ports in the influence area needs to be studied. CIDCO to explore the Town Planning Scheme for facilitating dry ports/ Container Freight Stations (CFS) hubs in these areas.

For CIDCO & JNPT
- Sub-group comprising of Mr. A. K Bose (Chief manager, Traffic JNPT), Mrs. Aparna Vedula (ACP, CIDCO), Mr. Soma Vijay Kumar (CGM - TA, CIDCO), Mr. Paithankar (President of Maharashtra Heavy Vehicle & Interstate Container Operators Association), Mr. Arun Adak (CFSAI), Shri A. Salve (DCP, Traffic) to be formed to understand port needs for port capacity of 10 Million TEUs and share of responsibilities between CIDCO and JNPT.
- Studies to be undertaken on the impact of port development on traffic in the influence area and wider region with at least two scenarios projections for 11 and 20 Million TEUs respectively. Transport influence should be checked on the entire Mumbai Metropolitan Region (MMR).
- Landmark building and feature to be created as port icon.

For All Stakeholders under High Powered Committee
- On-wheel examination of vehicles to be stopped.
- Template of comprehensive village development plan (physical and social) to be prepared. PSUs in the JNPTIA to adopt villages.
- Factory stuffed containers to be identified and managed separately.
- Pollution and emission action plan.
- Maintenance of identified Parking Yards and Truck Terminal spaces may be handed over to Transportsers Association.
- A competing company providing railway freight services other than CONCOR. Also, CONCOR should improve its pricing structure to encourage higher evacuation through railways.
- Road widening augmentation of State Highways / National Highways to be done as a top priority. Road safety audit for segregation of passenger and container traffic to be done immediately.
- To expedite development of dedicated freight corridor (DFC), multi-modal corridor (MMC) and coastal roads.
- Traffic police to be consulted while deciding the location for parking yards/truck terminals and allocating other facilities for truck drivers and port workers.
- Interlinking National Highway (NH) 4B and State Highway (SH) 54.
- Creating dedicated special squad to monitor traffic activities in the influence area.
- Transportsers Association to track trucks using GPS technology.

The sessions were attended by heads from different departments at CIDCO. Significantly, each session was attended by planners at different stages of their career in CIDCO. Feedback from the attendees, suggested that the workshop gave them a thorough understanding of port operations, expectations from planners and ideas for the JNPI influence area.

Follow up activities to build on these discussions and engage with experts at the workshop are being planned by CIDCO. The workshop has thrown up the idea of engaging with experts through workshops as opposed to hiring consultants to support activities. Although the workshop was successful in achieving its outcomes there is still a long road (or quay) ahead. For now, a special mention for the Chief Vigilance Officer, Dr Pradnya Sarvade and Additional Chief Planner Ms. Aparna Vedula (and her team) for their leadership in organizing the workshop.
Every five years CIDCO conducts a socio economic survey of the population in the planned nodes in Navi Mumbai. The surveys are designed to capture a wide range of information about the local population and life in the city. The Smart City team has undertaken a first of its kind study to identify trends from the data collected by CIDCO. While the final report with trends and outcomes is under discussion with CIDCO - presented here is a snapshot of some of the findings.

**Inflation adjusted income by gender and categories of economic activities (2000 – 2010)**

For both men and women, incomes in the services sector were up to 60 per cent more than incomes from other economic activities between 2000 and 2010. The only exception is income from self-owned businesses in 2010.

**Average Travel Time for Work Trips across all nodes in 2005 and 2010**

Travel time to work has improved from 2005 to 2010 for all nodes except Airoli, Ghansoli and New Panvel.
NIUA and Royal Institute of Chartered Surveyors (RICS) initiated a joint research study to understand impact of increasing floor space index in and around gaothans in Navi Mumbai at the request of CIDCO. Major part of this study will address the statutory pre-requisite of an impact assessment study for cluster redevelopment schemes in Navi Mumbai.

As per the Maharashtra Land Revenue Code, 1966 - 'gaothan' or 'village site' means the land included within the site of a village, town or city. The limits of sites of villages, towns and cities are determined by the Collector or for a survey officer acting under the general or special orders of the State Government.

Navi Mumbai Notified Area measuring 344 sq.km. includes around 95 gaothans. The lands under these gaothans was not acquired by CIDCO. Further these gaothans have developed and expanded in unplanned and haphazard manner. The state government has issued a notification to allow a maximum of 4 FSI by way of cluster development approach to develop these areas. The impact of this FSI on infrastructure and environment will be studied as part of this research study.
KHAR KOPAR GAOTHAN, SECTOR 8, ULWE NODE, NAVI MUMBAI

BUILT FABRIC

Source: Google Earth
Between October and December 2014, the Smart City team conducted over 28 semi-structured interviews with senior officers at CIDCO, including all HODs, to understand organizational changes desired, training and capacity building needs, and innovative practices. Each interview lasted between 1 to 3 hours. Using comments and feedback from the interview, an online survey was created to understand the most pressing needs and popular demands at CIDCO. Around 40 per cent of the senior officers responded to the survey.

The most important actions for CIDCO identified by the respondents through the survey were:

- Making training mandatory and increasing it to 15 days per applicant: 90%
- Performance Management System and 360 reviews: 82%
- National and International Exposure Visits for the Staff: 82%
- Overcome Shortage of Staff through recruiting: 70%
- GIS Data to be made public: 70%
NIUA is currently engaged in developing a framework for child friendly cities, an idea recently reaffirmed by the Honorable Prime Minister in his vision for smart cities. Seoul exemplifies this overlap by using technology to ensure safety for young ones.

A closed-circuit television (CCTV) network enables the exchange of video data generated by Seoul’s 30,000 CCTV installations. Closed-circuit television (CCTV), also known as video surveillance, is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.

Seoul Safety Service has been utilizing CCTV technologies to notify authorities and family members of emergencies involving children, the disabled, the elderly, and those suffering from Alzheimer’s disease. Seoul has developed a smart device dedicated to this purpose and when its holder leaves a designated safe zone or pushes its emergency button, an emergency alert is sent to guardians, police, fire departments and CCTV Control Centers.


Source: - Smart cities Seoul: a case study, IUT - T Technology watch report February 2013

### Upcoming workshops for CIDCO@Smart

- **HOUSING POLICY AND TECHNOLOGY**
  April 2015
- **GETTING CIDCO ONLINE – SOCIAL MEDIA ENGAGEMENT**
  May 2015
- **TRANSPORTATION PLANNING**
  May 2015
- **AIRPORT AND INFLUENCE AREA PLANNING**
  June 2015
- **MAKING CIDCO AN IT ENABLED ORGANIZATION**
  June 2015