

Discussion Points Tech Clinic Webinar Series
25th May 2020 3:00 to 4:00 PM
Leveraging GIS for City operation

Responsible development requires robust spatial information that is refined and constantly updated. In addition, foresight and problems-solving skills are required to put data to good use. This challenge has made Geographic Information System (GIS) invaluable to city ecosystem to integrate every aspect of a city from conceptualization and planning to development and maintenance. Cities are relying on GIS to unlock power of spatial data that would otherwise be hidden. This episode of the webinar focuses on GIS based approaches for planning and management in cities, geo-spatial technologies and city-level use-cases.

No. of attendees: 488

Speakers

1. Mr. Rahul Kapoor – Director, Smart Cities Mission
2. Mr. Vishnu Chandra – Dy. Director General (NIC)
3. Dr. D. Vasudevan -It Expert (Varanasi Smart City)
4. Dr. Manoshi Lahiri-Founder (ML Infomap)
5. Mr. Narinder Thapar- vice President, (ESRI India)
6. Dr. Yogita Shukla, Founder (Wo-Men Geospatial Coterie)

Name of Speaker	Key Points
Rahul Kapoor	<ul style="list-style-type: none"> ● Mr. Rahul Kapoor gave a brief on the points of focus to be discussed in the webinar. ● Mentioned that questions related how GIS will amplify the collection of data and monitoring of the cities and ways they will be put to use in smart cities would be dealt in the discussion. ● He also mentioned that GIS has helped immensely during covid fight in contact tracing and creation of buffer zones around covid19 cluster zones ● Also mentioned that GIS has been implemented in the ministry in form of India Urban Observatory where real time data is collected and analyzed to generate insights through collaboration with industry partners and government institutions. ● Illustrated use of GIS in generating insights on water availability. ● Mentioned the benefits reaped by citizens through use of GIS for generating visualizations. ● Also highlighted the benefits to administrators through operational efficiency.
Vishnu Chandra	<ul style="list-style-type: none"> ● Mr Vishnu Chandra mentioned his focus during discussion would be on What is the end to end thing required in context of urban local bodies and smart cities ● Focused on importance of Base Map and Spatial database and generic web based services provided by Google, Bing, ArcGIS ● Highlighted unavailability of proper adequate Base map as hurdle in implementation of GIS

	<ul style="list-style-type: none"> ● Mentioned how integration of drone data set for best possible topographic database ● Introduced concept of data Integration which is basically crowd sourced data, work flow data or transactional data depending on the type of application ● Highlighted applications for Integration and Work flow such as Web Services, Geo Processing Services, Query and Analytic ● Mentioned government perceptives such as Framework and commercial arrangements for project execution, capacity building at City/ULB level and bringing mechanism in terms of enabling processes and policies for data driven governance. ● Briefly shared glimpse of work done through GIS portal for SRA, Mumbai, E-Dharti Geo-portal, GIS portal for YEIDA and One Map Greater Noida GIS Project.
<p>Dr. Vasudevan Deivasiga</p>	<ul style="list-style-type: none"> ● Mr Vasudevan deivasiga shared Case study of Varanasi Smart city and shared views on how to make best use of GIS during covid19 pandemic crisis. ● He mentioned that the Integrated Command and Control center was converted to Covid19 command center on 1st April2020 itself ● Presented a glimpse of Covid19 War room's Dashboard showing various parameters under monitoring for better surveillance and tracking of cases ● Mentioned how with the deployment of esri ArcGIS they have been able to trace and monitor individual covid patients and their personal details ● Showcased 4 dashboards depicting hotel/lodge/guest house arrangements for covid patients, Varanasi city shelter services, Isolation and quarantine centers, Hospital wise staff deployment and medicine delivering area.
<p>Dr. Manoshi Lahiri</p>	<ul style="list-style-type: none"> ● Dr. Manoshi Lahiri shared a use case utilizing GIS framework for waste collection through Swachh Nagar application. ● Highlighted constraints and problems encountered such as fund constraints, unfamiliarity with the potential of GIS. ● Gave a brief outline of the application like it is used to manage garbage collection and help administrators to get single view on the ground. Moreover, also discussed how the app functions. ● Highlighted gaps to be filled to improve extent of garbage collection in ULBs such as building institutional capacities in communication of purpose, creation of basic digital map of ULB, training administrators and collectors and ensuring right direction of work-flow. ● Also suggested ways to overcome above hurdles such as color coding buildings on the map after waste collection, confirmation of collection through QR code scanning.
<p>Narinder Thapar</p>	<ul style="list-style-type: none"> ● Mr Narinder Thapar mentioned in the beginning that his thoughts would revolve around GIS as a foundation system for City

	<p>management.</p> <ul style="list-style-type: none"> ● Highlighted expectations from cities like better health and education, urban planning and development, affordable housing, robust IT connectivity etc. ● Highlighted GIS application areas for cities such as Planning-urban design, GIS based master plans, water distribution system and many more. ● Shared an example of GIS use case through MCGM which is an integrated platform which has been integrated with various other applications related to property tax system, Command and Control systems, erp based real estate and auto DCR. ● Mentioned how smart cities have integrated GIS based applications along with smart elements like integrated with Kashi ICC and integrated with solid waste management systems ● Described how GIS as a platform handles data related to Utilities, Infrastructure, public safety, governance, transportation and communication. ● Showcased GIS based dashboards used during covid for impact planning, covid cases information, isolation/quarantine center planning. ● Mentioned the 6 months pro-bono license to the interested cities and to avail that the cities need to visit the website of ESRI.
<p>Dr. Yogita Shukla</p>	<ul style="list-style-type: none"> ● Dr. Yogita Shukla talked regarding geospatial Integration framework for the cities. ● Mentioned different elements of geospatial technologies like Spatial data acquisition, spatial data processing, Integration, analysis & modelling, visualization and dissemination and update & maintenance and the process flow. ● Showcased interconnectivity between Geospatial and smart cities with transportation, utility, climate & environment, Infrastructure and governance ● Stressed on importance of Seamless integration at information & data, platform and application level. ● Showcased flow of information from top to bottom of the pyramid and synchronization. ● Chose Municipal corporation, saharanpur to illustrate integration of Property data from ULB and R-APDRP data from PVVNL and stressed on uniform structure of different datasets for easy and smooth integration. ●
<p>Mr. Chaitanya Bhatt</p>	<ul style="list-style-type: none"> ● Mr. Chaitanya Bhatt mentioned that Surat has been implementing GIS since 2011-12 for water supply, drainage, storm water and more than 1 lakh street lights have been mapped. Moreover, Individual property has been integrated with property tax system. ● Added that monitoring and recovery of property tax is done through GIS. ● Planning for Project Monitoring System right from estimation to

	<p>completion of the project</p> <ul style="list-style-type: none"> Highlighted the challenge to bring other departments to a single platform with Surat Municipal Corporation.
Mr. Raj Cherubal	<ul style="list-style-type: none"> Sought suggestions on how to implement GIS effectively in Chennai following model in other smart cities example Singapore.

Audience Q&A

Paraphrased Questions from Audience	Directed to	Paraphrased Response
Why is the uptake not so much, is it natural resources or lack of institutional interest or non-acceptance of technology	Dr. Manoshi Lahiri	<ul style="list-style-type: none"> There can be more than one reason so it is important to start communicating with possible and realistic benefits that are accrued at the end of exercise. Lack of base maps is one of the reason and believes lot of these problems are reality
How you are going to have strong interface of GIS based masterplan and integrated command control of smart cities?	Dr. Vasudevan Deivasiga	<ul style="list-style-type: none"> In most of the ICCC, GIS is one the system and the services and applications running in the command center need to be integrated on a special GIS platform for visualization. It is important to visualize spatially. All the smart cities have ICCCs and on top of it all the services are integrated. Mr Narinder added that data model plays the key role.
How to bring SMC on a common platform with other departments	Mr. Vishnu Chandra	<ul style="list-style-type: none"> Suggested API framework on lines of their previous projects to exchange no spatial or geo spatial services with OGC compliance Suggested signing of digital agreement for exchange of API and services. Suggested ULBs and cities should not be seen in isolation
How to implement GIS effectively in Chennai following model in other	Mr. Vishnu Chandra	<ul style="list-style-type: none"> Reminded of an old project NIC did with Chennai municipal corporation on ground mapping using aerial

<p>smart cities example Singapore?</p>		<p>photography isolate them.</p> <ul style="list-style-type: none"> ● Suggested further work can be done using the past work data and latest satellite imagery. ● Mr Patil suggested GIS strategy not just for the corporation but city perspective.
<p>Some efforts have been done on collecting attribute data, how can we utilize it for the organization now?</p>	<p>Mr. Vishnu Chandra</p>	<ul style="list-style-type: none"> ● Master plan gives an overview of city built up plan and land use and activities to be followed. It is very essential for future planning ● Mr Narinder stressed on flexible master plan data model ● Dr. Yogita stressed that every city needs to create its data model based on the issues they want to work on.