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DEPARTMENT OF LAND RESOURCES
MINISTRY OF RURAL DEVELOPMENT



COURSE REPORT

SECOND BATCH OF TRAINING CUM WORKSHOP ON NAKSHA PROGRAMME FOR DISTRICT MAGISTRATES/COLLECTORS

(27TH-28TH OCTOBER, 2025)

B.N. Yugandhar Centre for Rural Studies
Lal Bahadur Shastri National Academy of Administration,
Mussoorie – 248179

Training cum Workshop on NAKSHA Programme for District Magistrates/Collectors for Second Batch

(27th October to 28th October, 2025)

COURSE REPORT



**B.N. Yugandhar Centre for Rural Studies
Lal Bahadur Shastri National Academy of Administration
Mussoorie – 248179**



**Lal Bahadur Shastri National Academy of Administration
Mussoorie – 248179**

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Published by: -

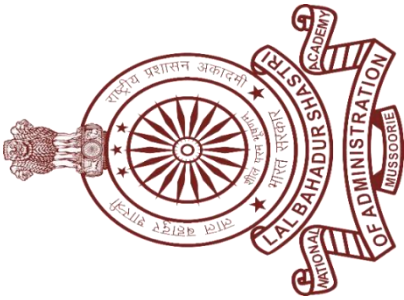
Centre for Digital Documentation, Archival, and Publication (C-DAP)

November, 2025

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DAY 1



Second Batch of Training cum Workshop on NAKSHA Programme for District Magistrates/Collectors

27th and 28th October, 2025

Lal Bahadur Shastri National Academy of Administration

Mussoorie- 249179



Group photo of the participants of the second batch of "Training cum workshop on NAKSHA programme for District Magistrates /Collectors" with the Chief Guest, 'Shri Manoj Joshi', Secretary, DoLR, Dr. Bagadi Gautham, IAS, Centre-Director of BNYCRS and Professor of Public Administration, LBSNAA and guest speakers of the session.

OBJECTIVE AND DELIVERABLES

Objective

To provide orientation and hands-on exposure to District Collectors on the complete NAKSHA workflow and their strategic leadership role in facilitating inter-departmental coordination, survey supervision, and grievance redressal.

Deliverables

Comprehensive understanding of:

- o Map-1: Aerial survey and feature extraction
- o Map-2: Ground truthing and field validation
- o Map-3: Handling public objections and finalization of UrPro Cards
- o Exposure to GNSS/ETS-based surveying, Web-GIS portal, and coordination protocols.

Inaugural Address

Dr. Bagadi Gautham, IAS, Centre-Director of BNYCRS and Professor of Public Administration in his inaugural address spoke about the objectives and ongoing initiatives of the Centre, underscoring its efforts to engage with pressing issues in rural and urban governance. He extended a warm welcome to the Chief Guest, Shri Manoj Joshi, Secretary, Department of Land Resources (DoLR), Ministry of Rural Development (MoRD), Government of India along with other distinguished guests, faculty members and participants comprising District Magistrates and Senior Administrative Officers from across the country. He expressed appreciation for the presence of Shri Manoj Joshi, Secretary, and Shri Kunal Satyarthi, Joint Secretary, from DoLR, and shared a brief overview of the NAKSHA programme. He also mentioned how the previous first batch of the training went well in the same Indira Bhawan campus and hoped for the same level of success in this second batch of training as well. He then continued outlining about NAKSHA and its objectives and long-term relevance. Dr. Bagadi Gautham also highlighted several state-level initiatives being undertaken within the NAKSHA framework underscoring the importance of collective effort and inter-departmental collaboration for its effective implementation. Following his speech, he invited the Chief Guest Shri. Manoj Joshi, Secretary, DoLR, MoRD, Gol to deliver the key note speech.

Delivering the keynote address, Shri Manoj Joshi, Secretary, DoLR expressed his appreciation to LBSNAA for organizing the workshop and highlighted the critical role of District Collectors in improving land governance. He stressed the need for a technology-enabled and transparent urban land management system, noting that while some States have advanced systems, others still face challenges due to outdated maps and incomplete survey records.

Shri Joshi emphasized that modern technologies such as GIS, CORS, GNSS NRTK, and drones must replace conventional survey methods to ensure accuracy and reduce land disputes. He explained that the NAKSHA programme aims to bridge these long-standing gaps by providing precise mapping up to 5 cm accuracy. Linking the initiative to the vision of Viksit Bharat, he urged officers to take an active role in

strengthening land record management and to make this pioneering, technology-based survey programme a success across the country.



Overview of NAKSHA Programme

Shri Kunal Satyarthi, IFS, Joint Secretary - Department of Land Resources (DoLR), Ministry of Rural Development, GoI

Shri Kunal Satyarthi, Joint Secretary, Department of Land Resources (DoLR), gave a detailed presentation on the NAKSHA Programme, which stands for the *National Geospatial Knowledge-based Land Survey of Urban Habitations*. He described it as a flagship pilot initiative designed to create modern, digital urban land records using advanced geospatial technologies.

He began by noting that the current state of land maps in the country is extremely poor, with only a few States regularly updating or mutating their maps. He pointed out that nearly two-thirds of civil cases and about one-third of criminal cases in India stem from land-related disputes — a reflection of the urgent need for reform in land record management.

Explaining the rationale behind NAKSHA, he said the programme seeks to address long-standing challenges such as the non-maintenance of urban land records, rapid urbanization, rising land values, and ownership disputes that often delay planned development and restrict access to institutional credit. The initiative aims to ensure transparency, accuracy, and easy accessibility of urban land information across the country.

Shri Satyarthi explained that NAKSHA is being implemented through a collaborative institutional framework involving several key partners — the Department of Land Resources as the nodal agency, the Survey of India as the technical partner, MPSEDC as the Web-GIS platform developer, and NIC for cloud and database management. The States and Union Territories act as critical stakeholders, facilitating field surveys, establishing Project Management Units (PMUs), and integrating the data with existing land records.

Under the pilot phase, the project is being rolled out across 27 States and 3 Union Territories, with an initial outlay of ₹194 crores under the Digital India Land Records Modernization Programme (DILRMP). It currently targets 1,000 Urban Local Bodies (ULBs) and will later expand to cover all 4,912 ULBs nationwide.

He outlined a three-tier implementation approach:

- Map-1: Conducting aerial surveys, generating ortho-rectified imagery (ORI), and carrying out 2D and 3D feature extraction.
- Map-2: Performing ground truthing and integrating land record, registration, and property tax data using GNSS rovers.
- Map-3: Undertaking claim verification, grievance redressal, and final publication of urban land records.

Highlighting the use of cutting-edge technologies, Shri Satyarthi mentioned that Nadir and Oblique cameras, LiDAR sensors, and GNSS rovers are being deployed to generate high-precision spatial data. He also underlined the programme's strong focus on capacity building, with training being provided to master trainers, state-level officers, and field teams through the National Institute of Geo-Informatics Science and Technology (NIGST) and designated Centres of Excellence across India.



He further explained that the NAKSHA Web-GIS platform will serve as a unified system for all stakeholders, allowing real-time data collection, validation, and public access. The platform also supports API-based integration with departments responsible for registration, property taxation, urban development, and utilities — ensuring a seamless flow of data and interoperability.

Concluding his address, Shri Satyarthi described the NAKSHA programme as a transformative step in digital urban land governance, enabling scientific property taxation, efficient urban planning, disaster management, and transparent land

administration. He expressed confidence that this initiative will pave the way for a modern, accurate, and citizen-friendly urban land management system across the country.

Map 1: Workflow and Deliverables under NAKSHA

**Shri S. K. Sinha, Additional Surveyor General - Survey of India,
Dehradun**

Shri S. K. Sinha, Additional Surveyor General of the Survey of India, recently shared an insightful update on the progress and methodology of the NAKSHA Project. He began by outlining how the initiative sets out to create a digital, geospatial reference framework—a foundational digital map for the nation—by leveraging aerial survey technologies and advanced spatial data solutions.

At its heart, the NAKSHA Project is designed to support property mapping, 3D city modeling, and accurate ground validation, especially across India's rapidly growing urban and peri-urban zones. The project underpins the country's drive toward creating transparent, reliable land records forming the backbone for effective governance and modern urban planning.

Shri Sinha walked the audience through the sequential steps of the Map-1 workflow: The process kicks off with high-resolution data collection, using aerial photography and LiDAR sensors for maximum accuracy.



Captured data is then pre-processed—calibrated and geo-referenced—to tie all images to their precise physical locations.

The technical workflow advances to creating Digital Surface Models and Digital Terrain Models, followed by the production of ortho-rectified imagery (ORI). These layers allow technicians to build both textured 3D cityscapes and extract vector

features—essentially mapping both the visible buildings and the land surface underneath.

All these datasets are carefully vetted for quality before being uploaded to a dedicated Web-GIS platform. This is where state authorities carry out Map-2—detailed ground-level validation.

The presentation underscored the deployment of sophisticated sensors: vertical (nadir) cameras supply accurate top-down imagery, while oblique cameras deliver perspective views crucial for developing true-to-life 3D models. LiDAR plays a pivotal role in rendering precise elevation data, especially in varied terrain. Shri Sinha emphasized the value of ortho-rectified imagery for digitizing building footprints and ground features, integrating seamlessly with DSM/DTM data to form comprehensive elevation models.

Some of the project's principal deliverables highlighted by Shri. Sinha include:

- High-resolution, ortho-rectified images;
- Detailed 2D and 3D GIS datasets depicting property boundaries, utilities, and city assets;
- Full integration of these layers within a Web-GIS platform for transparent access and validation.

Shri Sinha candidly addressed operational hurdles, particularly the need for coordinated efforts among multiple stakeholders and the occasional need for additional field surveys. He estimated that up to 90% of property details can be mapped photogrammetrically, with the balance requiring manual verification.

In closing, Shri Sinha recognized the NAKSHA Project as a milestone—laying a scalable, reliable geospatial foundation for Indian towns and cities. Its impact, he noted, will ripple through the Digital India Land Records Modernization Programme, driving smarter governance, more accountable land records, and a future-ready platform supporting both urban and rural development needs

Learning from Kerala: Implementation approaches and best practices under NAKSHA

Shri S. Sambasiva Rao, IAS, Special Secretary (Electronics & IT, Env) & Director Survey, Govt. of Kerala

Shri S. Sambasiva Rao provided a deep dive into Kerala's pioneering digital land survey program, Ente Bhoomi, which has transformed decades-old paper land records into an accurate, transparent, and citizen-friendly digital land governance system. This initiative emphasizes precision in land parcel mapping, integrating survey records with ownership and revenue data to create a unified, up-to-date digital land cadastre.

Key lessons from Kerala's experience include the importance of spatial accuracy, complete and systematic re-surveying rather than piecemeal updates, and seamless integration of technology with fieldwork. The program leverages advanced GNSS RTK rovers, Robotic Electronic Total Stations, drones, and a real-time digital survey management system, enhanced by continuous quality control and citizen engagement.



Significant highlights include the use of web-based GIS portals for public access, digital grievance redressal mechanisms, and the automation of mutation processes enabling near real-time land record updates. The initiative showcases a robust monitoring and governance framework with tiered monitoring at state, district, and village levels ensuring data quality, surveyor accountability, and progressive issue resolution.

Shri S. Sambasiva Rao also showcased 3 videos regarding the work done in the Kerala under the urban survey programme. Kerala's model underscores transparency, inclusivity, and technological innovation as cornerstones for modern land administration—providing a scalable blueprint for nationwide implementation of the NAKSHA project. The course stressed that citizen participation, legal clarity, and integration of departmental functions are vital for building trustworthy, conclusive land records that empower landowners and streamline governance.

Administrative & legal framework for NAKSHA implementation

Shri N. K. Sudhansu, IAS, Director General, YASHADA, and Shri S. Chockalingam, IAS, Principal Secretary and Chief Electoral Officer, Maharashtra

Shri N. K. Sudhansu, IAS, Director General, YASHADA, and Shri S. Chockalingam, IAS, Principal Secretary and Chief Electoral Officer of Maharashtra, jointly delivered a session on the administrative and legal framework of NAKSHA. The session opened with a set of common questions concerning citizens, survey teams, ownership, encroachment, area, and measurement. Participants read these aloud and engaged in an interactive discussion as the speakers addressed each query. Shri Sudhansu responded to several questions, while Shri Chockalingam provided answers to the rest. Shri Chockalingam elaborated on the legal provisions of the Maharashtra Land Revenue Code (MLRC), 1966, particularly Sections 20, 79, 83, 122, 126, and 247, which delineate ownership rights, survey powers, boundary disputes, and the responsibilities of enquiry officers. Participants were briefed on the procedures for formal and summary enquiries, the authority to summon and determine ownership, and the mechanisms for addressing encroachment and boundary-related disputes.

They elaborated on the Process Flow for the City/Town Survey in Maharashtra, which comprises five sequential stages. The process begins with the Extension of the City, where the Urban Development and Revenue Departments jointly notify new urban or peri-urban areas for survey. The second stage, Survey of Properties, involves detailed mapping of all properties using modern geospatial technologies such as GIS, GNSS, and drone surveys. In the third stage, Enquiry of Ownership, the Enquiry Officer verifies ownership details of each property through field validation and document scrutiny. The fourth stage, Draft Promulgation, entails publishing draft maps and enquiry registers online to invite public objections and suggestions, ensuring transparency and stakeholder participation. Finally, in the fifth stage, Final Promulgation, all verified data are consolidated, and the final maps and property cards are published and operationalized, establishing a unified and legally authenticated digital record of urban land ownership.



They also explained the process flow, which includes the collection of records, IEC activities, training, and the formation of survey teams. The process involves boundary demarcation using rovers, drone-based surveys, GIS-supported ground truthing, and online enquiry of ownership. The session concluded by emphasizing that legal clarity, interdepartmental coordination, and stakeholder awareness are crucial for the successful implementation of the NAKSHA framework across states.

Experience of city survey & planning for NAKSHA in Gujarat

**Dr. Jayanti S. Ravi, Additional Chief Secretary, Revenue Department,
Govt. of Gujarat**

Dr. Jayanti S. Ravi, Additional Chief Secretary, Revenue Department, Government of Gujarat, delivered a session on “Experience of City Survey and Planning for NAKSHA in Gujarat.” The session focused on the implementation of the NAKSHA (National Geospatial Knowledge-Based Land Survey of Urban Habitations) initiative under the Digital India Land Records Modernization Programme (DILRMP). She highlighted Gujarat's innovative approach to urban land record modernization through the integration of geospatial technologies, including 2D/3D mapping, LiDAR, GNSS, and drone-based surveys.

Dr. Ravi discussed the approved implementation of NAKSHA in five Urban Local Bodies—Anand, Nadiad, Navsari, Gandhidham, and Morbi. She elaborated on the NAKSHA workflow, which includes Map-1 (data generation), Map-2 (public verification), and Map-3 (final publication), emphasizing the integration among multiple departments such as Revenue, Registration, Urban Local Bodies, and Town Planning. She also discussed the importance of IEC (Information, Education, and Communication) activities, capacity building, and citizen engagement in ensuring successful implementation.



Overall, the session demonstrated how Gujarat's experience with NAKSHA represents a model for transparent, efficient, and technology-driven urban land management, offering valuable insights for replication in other states, including Uttar Pradesh and Odisha, where similar modernization projects are being planned.

Best practices on IEC and awareness plans for NAKSHA implementation (Online)

Shri N. Prabhakara Reddy, District Collector, Parvatipuram, Govt. of Andhra Pradesh

Dr. N. Prabhakara Reddy, I.A.S., Collector and District Magistrate of Parvatipuram Manyam District, Government of Andhra Pradesh, delivered a lecture virtually on “Best Practices on IEC and Awareness Plans for NAKSHA Implementation,” focusing on effective strategies for Information, Education, and Communication (IEC) to ensure the successful execution of the NAKSHA program. Dr. Reddy emphasized that community engagement and awareness are crucial to reducing disputes and promoting transparency in the resurvey and modernization of property records. He identified major challenges encountered during NAKSHA implementation, such as property disputes, mismatches in area and survey numbers, encroachments, false documentation, and violations of roads or open spaces.

Addressing these challenges, Dr. Reddy outlined several preemptive measures adopted in Andhra Pradesh, including active landowner participation, multi-mode notice serving, and grievance redressal mechanisms. IEC efforts were enhanced through multi-channel outreach via print and electronic media, distribution of pamphlets, Grama Sabhas, awareness rallies, and short films to encourage public participation and minimize conflicts. He also highlighted innovative practices such as the 5% Allowance Rule for tolerance in boundary disputes, the Golden Record Rule for reconciling title and field records, and the formation of special survey teams to handle disputed lands.

Dr. Reddy stressed the importance of a “Whole to Part” and “Easy to Hard” approach, analyzing wards collectively before addressing complex cases, ensuring the deployment of capable officers, and piloting survey activities in select areas before scaling up. The session concluded with the message that transparency, strong institutional coordination, and public trust are the pillars of successful NAKSHA implementation.

DAY 2

Learning from Karnataka: Implementation approaches and best practices under NAKSHA

Shri Rajender Kumar Kataria, Principal Secretary, Revenue Department, Bengaluru, Govt. of Karnataka

Sh. Rajender Kumar Kataria, I.A.S., Principal Secretary, Revenue Department, Government of Karnataka, delivered a session on “Learning from Karnataka Implementation and Best Practices under NAKSHA.” Shri Kataria emphasized that Karnataka has been a pioneer in adopting geospatial technologies, legal reforms, and institutional coordination to improve transparency and efficiency in land administration. He explained the three-stage NAKSHA workflow: Map-1 (aerial survey and feature extraction), Map-2 (ground verification and integration with ownership records), and Map-3 (final promulgation and publication). Karnataka's use of drone-based mapping, GNSS-enabled ground surveys, and CORS networks has enabled centimetre-level spatial accuracy in property demarcation.



Shri Kataria also highlighted the earlier Urban Property Ownership Record (UPOR) project, which served as a model for NAKSHA's state-wide rollout. Amendments to the Karnataka Land Revenue Rules (1966) incorporated remote sensing, UAV surveys, and digital record-keeping. The integration of e-Katha and KANAJA software facilitated seamless linkage of spatial and non-spatial datasets across 316 Urban Local Bodies. Extensive Information, Education, and Communication (IEC) initiatives, community consultations, and transparent grievance mechanisms ensured robust public engagement. The session concluded by presenting Karnataka's innovative approach of unifying rural and urban land records into a

single digital framework, establishing legal sanctity, transparency, and accessibility, and positioning the Karnataka model as a scalable example for other states implementing NAKSHA.

Aerial data acquisition & data processing

Shri Sundar Raj S, Director Delivery Excellence and Shri Palanikkumar Kanagavel, Project Director - LTIMindtree, Chennai, Tamil Nadu

Shri Sundar Raj S and Shri Palanikkumar Kanagavel of LTIMindtree provided an overview of aerial survey project lifecycles, covering desk studies, flight planning, terrain and airspace analysis, statutory clearances, and data transfer protocols. The session detailed the use of both manned aerial vehicles and UAV platforms such as Trinity F90+, Qube 240, and Oblique D2M, equipped with nadir and oblique sensors to achieve a Ground Sampling Distance (GSD) of 5 cm or better. Key steps in Ground Control Surveys, including GCPs and CORS, were explained to ensure geospatial accuracy through RTK and DGNSS-based methods.



In conclusion, they highlighted the critical role of aerial data acquisition and advanced photogrammetric processing in enhancing accuracy, efficiency, and scalability in India's urban land record modernization. The Map-1 deliverables including Orthorectified Imagery (ORI), Digital Surface Model (DSM), Digital Terrain Model (DTM), 3D Mesh, and Vector Models were identified as essential base layers for subsequent survey and verification stages under NAKSHA.

Demo of NAKSHA Web-GIS portal

**Shri Durgesh Singh, Business Analyst (Lead) and Shri Anoop Patel
(Project Manager), MPSeDC, Bhopal, Madhya Pradesh**

Shri Durgesh Singh and Shri Anoop Patel from the Madhya Pradesh State Electronics Development Corporation (MPSEDC) delivered a comprehensive demonstration of the NAKSHA Web-GIS Portal, showcasing an integrated suite of GIS-based Web, Mobile, and Desktop Applications developed to facilitate seamless data collection, verification, and publication within the NAKSHA framework. They explained that the Web Application consists of multiple modules for data management, verification, and final record publication, while the Mobile Application includes six specialized modules for on-field activities such as ground truthing, plot mapping, and real-time synchronization of survey data.



The Desktop Application supports the validation and uploading of high-resolution datasets, including ORI, DSM, DTM, and 3D Mesh data. Shri Singh and Patel demonstrated the NAKSHA User Flow and the functionalities available to State Admin Users, such as User Role Management (URM) for creating, assigning, and managing roles, Map and Image Verification, and District Admin User functions for managing AOIs, designations, and publications. They also explained the roles of Urban Local Body (ULB) Admins and Survey Users through desktop and mobile interfaces. Overall, the session effectively demonstrated how the NAKSHA Web-GIS platform integrates administrative and technical components to ensure transparency, precision, and efficiency in the modernization of urban land records.

Learning from Assam: Implementation approaches and best practices under NAKSHA

**Shri Kailash Karthik N, IAS, Director of Land Records & Surveys, Assam
(Online)**

Shri Kailash Karthik N, IAS, Director of Land Records & Surveys, Assam initiated a session on “Learning from Assam Implementation and Best Practices under NAKSHA” and insights into three master plan, city issues and urban flood. Shri Karthik addressed critical issues of rapid urbanization, encroachment, and outdated cadastral maps and emphasized the need to bridge gaps between revenue, registration, and municipal records through geospatial integration and focused joining dot to policy and people that’s make this possible public demand and security.

He was presented as a comprehensive reform model built on five pillars: public demand, digital platforms, advanced survey technology (RTK Rover and CORS), GIS capabilities, and simultaneous institutional reforms. The state deployed a large-scale drone and LiDAR survey covering nearly 36,000 sq. km (excluding red zones), supplemented by high-resolution satellite imagery (78,438 sq. km), over 1,100 GNSS rovers, and 1,300 trained surveyors. The Map-1 to Map-3 workflow from aerial data acquisition and field verification to claims, objections, and publication was demonstrated in detail.

Smt. Tanvi Ahmed, ACS, Additional Director of Surveys, Assam presented a ppt on Field teams composed of surveyors, assistants, and Urban Local Body officials carried out ground truthing using Trimble mobile applications to verify land parcel details such as Dag and Patta numbers. The comparison of old cadastral maps with newly surveyed data revealed discrepancies in parcel boundaries and ownership, highlighting the effectiveness of NAKSHA in identifying and correcting outdated spatial data. Smt. Tanvi showcased the Urban Property Record (URPRO) card as a unified ownership document integrating spatial and textual data.

Shri Mridul Boro, ACS, Assistant Director of Land Records & Municipal Administration, Assam discussed the GIS-based Property Tax Portal, which enables geotagging of properties, unique identification numbers, integration with electricity and trade

license databases, and online payment systems. Shri Boro emphasized API integration across NAKSHA, Revenue, and Property Tax Portals to enhance interoperability and transparency.



In conclusion, they illustrated how digital mapping, citizen participation, and cross-departmental integration can overcome traditional challenges in land governance. The state's approach demonstrates a replicable model for achieving accurate, transparent, and economically beneficial urban land record modernization across India.

Learning from Madhya Pradesh: Implementation approaches and best practices under NAKSHA

Ms. Namita Khare, Additional Director, MPLRS (Online) and Ms. Vanshika Ingale, Assistant Director, MPLRS, Bhopal, Madhya Pradesh

Ms. Namita Khare, Additional Director, MPLRS delivered session virtually on “Learning from Madhya Pradesh Implementation and Best Practices under NAKSHA”, shared comprehensive insights into the approach, institutional framework, and technological innovations adopted by Madhya Pradesh for the implementation of the National Geospatial Knowledge-Based Land Survey of Urban Habitations (NAKSHA). She explained that the initiative of creating accurate, transparent, and GIS-enabled urban land records that strengthen citizen services, urban planning, and taxation systems while reducing land disputes and promoting sustainable development.

Ms. Vanshika, Revenue Department, Government of Madhya Pradesh outlined the evolution of urban survey initiatives in the state beginning with the Survey of India’s drone-based surveys in 31 towns, where three Proof of Concept (POC) locations (Shahganj, Chhanera Naya Harsood), and the Residency Area of Indore. Based on successful outcomes, ten towns were later selected for full-scale implementation of the NAKSHA programme, formally launched in February 2025 by Hon’ble Chief Minister Shri Shivraj Singh Chouhan.



She described the legal and administrative foundation for the initiative, anchored in the Madhya Pradesh Land Revenue Code (MPLRC) 1959 (Amended 2018), the Madhya Pradesh Land Records Manual, 2020, and the Madhya Pradesh Bhujarajvasa Sanhita Niyam, 2020. These frameworks authorize drone surveys, define urban survey guidelines, and integrate cadastral data with geospatial mapping. The adoption of the Block and Plot Concept, referencing traditional Khasra numbers, facilitates data accuracy and interoperability.

Ms. Vanshika explained the Map-1 to Map-3 workflow demonstrated how drone data acquisition, feature extraction, GNSS rover-based ground verification, claim and objection management, and final record publication are executed through the SAARA application. She also highlighted the establishment of 90 CORS stations across the state and a State Command and Control Centre in Bhopal, ensuring uniform accuracy and centralized monitoring. Integration between e-Nagar Palika, Sampada 2.0, SAARA, and NAKSHA portals has streamlined data exchange and enabled citizen access through the Bhulekh portal.

She also emphasized capacity building and community engagement, including the training of master trainers and field staff, and public awareness through IEC campaigns. The state has achieved measurable progress, earning a ₹20 crore incentive under the Scheme for Special Assistance to States for Capital Investment (SASCI). Challenges discussed included area mismatches, legacy title cases, and the need for legal provisions for vertical surveys in cities.

In conclusion, Madhya Pradesh's experience exemplifies a technologically advanced, legally grounded, and citizen-centric model for land record modernization. The integration of geospatial systems, administrative reforms, and digital governance tools positions the state as a leading example in the implementation of NAKSHA.

Practical demo of ground-truthing technologies under NAKSHA

Shri Bhaskar Sharma, Faculty of Geodesy & Shri Anurag Mishra, Faculty of Topography and GIS, at the National Institute for Geo-Informatics Science & Technology, Survey of India, Hyderabad, Shri Pravesh Kumar, Officer Surveyor, UKGD & Shri Amit Mahajan, Officer Surveyor, G&RB from Survey of India, Dehradun.

The session began with Shri Anurag Mishra and Shri Bhaskar Sharma, Officers from the National Institute of Geo-Informatics Science and Technology (NIGST), Survey of India, Hyderabad, introducing modern surveying instruments. Shri Mishra gave a detailed overview, focusing on two key devices: The Global Navigation Satellite System (GNSS) Rover and the Electronic Total Station (ETS). He explained the basic principles of satellite-based positioning and highlighted how GNSS plays a vital role in delivering precise spatial data, essential for land and cadastral surveys.

Following the technical briefing, participants were split into two groups and taken to the field for hands-on practice. Each team had specific tasks focused on using GNSS and ETS instruments, capturing data, and processing the survey results. This practical session gave everyone first-hand experience with the equipment, helped them understand how field data is collected, and showcased the accuracy and efficiency modern surveying technologies bring to land administration and mapping.



The two-day Training cum Workshop on the NAKSHA Programme concluded with a vote of thanks from representatives of BNYCRS, followed by the distribution of certificates to participants along with tokens of appreciation, recognizing their valuable contribution to the successful completion of the training.

ANNEXURES

ANNEXURE I	Sample Nomination letter sent to Dr. A. Jayathilak, IAS, Chief Secretary, Government of Kerala, to nominate District Magistrates for the workshop.
ANNEXURE II	Schedule of the second batch of "Training cum Workshop on NAKSHA Programme for District Magistrates/Collectors" (27 th – 28 th October, 2025)
ANNEXURE III	List of Participants attending the second batch of Training cum Workshop on NAKSHA Programme for District Magistrates/Collectors

ANNEXURE I



Dr. Bagadi Gautham, IAS
Professor (Public Administration) &
Centre Director, B N Yugandhar Centre for Rural Studies
Email: crs.lbsnaa@nic.in

No. T-31012/7/2025-CRS
Dated: 15th September, 2025

Subject: Nomination of District Magistrates for the "Training cum Workshop on NAKSHA for District Magistrates/ Collectors" at LBSNAA, Mussoorie (27-28 October, 2025) - Reg.

Respected Sir,

The B N Yugandhar Centre for Rural Studies (BNYCRS) of the Lal Bahadur Shastri National Academy of Administration is a leading resource establishment for training, research and policy recommendations in respect of various issues of land administration and management.

BNYCRS is conducting a Training-cum-Workshop on NAKSHA for District Magistrates/ Collectors of the pilot districts sponsored by the Department of Land Resources (DoLR), Ministry of Rural Development (MoRD), Government of India at LBSNAA, Mussoorie from 27th to 28th October, 2025.

In this regard, it is hereby kindly requested to nominate the District Magistrates/ Collectors involved in the Implementation of NAKSHA in your state (Annexure). The nominated officials are to register at www.lbsnaa.gov.in by 17th October, 2025. TA/DA during the travel has to be borne by the State Government.

With regards

Yours sincerely,

Encl.: As above

(Dr. Bagadi Gautham)

Dr. A. Jayathilak, IAS
Chief Secretary
Government of Kerala
Secretariat
Thiruvananthapuram – 695 001
Kerala

Copy to: District Collectors (As mentioned in the Annexure)



ANNEXURE II

B N Yugandhar Centre for Rural Studies
Lal Bahadur Shastri National Academy of Administration, Mussoorie
**Training cum Workshop on NAKSHA Programme for District Magistrates/
Collectors (27 - 28 October, 2025)**

Time (in Hrs.)	Session(s)	Guest Speaker(s)
Day 1 (27-10-2025)		
09:30 – 10:10	Minute to Minute Programme will be issued separately	
10:10 – 10:45	GROUP PHOTO and HIGH TEA	
TECHNICAL SESSIONS		
10:45 – 11:45	Overview of NAKSHA programme	Shri Kunal Satyarthi, Joint Secretary, DoLR, MoRD, GoI
11:45 – 12:15	Map-1: Workflow & deliverables under NAKSHA programme	Shri S. K. Sinha, Additional Surveyor General, Survey of India
12:15 – 13:15	Learning from Kerala: Implementation approaches and best practices under NAKSHA <i>State presentation (45 mins) followed by open discussion (15 mins)</i>	Shri S. Sambasiva Rao, Special Secretary (Electronics & IT, Env) & Director Survey, Govt. of Kerala
13:15 – 14:15	LUNCH	
14:15 – 15:30	Administrative & legal framework for NAKSHA implementation	Shri N. K. Sudhanshu, Director General, YASHADA, Pune & Shri S. Chockalingam, Chief Electoral Officer, Govt. of Maharashtra
15:30 – 16:30	Experience of city survey & planning for NAKSHA in Gujarat	Dr. Jayanti S. Ravi, Additional Chief Secretary, Revenue Department, Govt. of Gujarat

16:30 – 16:45	TEA BREAK	
16:45 – 17:45	Best practices on IEC and awareness plans for NAKSHA implementation (Online)	Shri N. Prabhakara Reddy, District Collector, Parvatipuram, Govt. of Andhra Pradesh

DAY 2 (28-10-2025)		
STATE EXPERIENCES ON NAKSHA		
09:30 – 10:30	Learning from Karnataka: Implementation approaches and best practices under NAKSHA <i>State presentation (45 mins) followed by open discussion (15 mins)</i>	Shri Rajender Kumar Kataria, Principal Secretary, Revenue Department, Bengaluru, Govt. of Karnataka
10:30 – 11:00	Map-1: Aerial data acquisition & data processing	Shri Sundar Raj S. and Shri Palanikkumar Kanagavel, LTI Mindtree
11:00 – 11:30	Demo of NAKSHA Web-GIS portal	Shri Anoop Patel & Shri Durgesh Singh, MPSeDC
11:30 – 11:45	TEA BREAK	
11:45 – 12:45	Learning from Assam: Implementation approaches and best practices under NAKSHA <i>State presentation (45 mins) followed by open discussion (15 mins)</i>	Shri Kailash Karthik, Director of Land Records & Surveys, Assam (Online) , Ms. Tanvi Ahmed, Additional Director of Surveys, Assam and Shri Mridul Boro, ACS, Assistant Director of Land Records, Assam
12:45 – 13:45	Learning from Madhya Pradesh: Implementation approaches and best practices under NAKSHA <i>State presentation (45 mins) followed by open discussion (15 mins)</i>	Ms. Namita Khare, Additional Director, MPLRS (Online) and Ms. Vanshika Ingale, Assistant Director, MPLRS, Bhopal, Madhya Pradesh
13:45 – 14:45	LUNCH	
14:45 – 16:15	Practical demo of ground-truthing technologies under NAKSHA (Groups will be shared separately)	Shri Bhaskar Sharma, Shri Anurag

		Misra, Shri Pravesh Kumar & Shri Amit Mahajan, Survey of India
16:25 – 16:30	Vote of Thanks	Shri Snehasis Mishra, Assistant Professor, BNYCRS, LBSNAA
16:30 – 17:00	Distribution of Memento and Certificate	

Guest Speakers and Session Moderators

Shri Kunal Satyarthi, IFS, Joint Secretary, Department of Land Resources, Ministry of Rural Development, Government of India

Session Moderator: Shri Suresh B Itnal

Shri S. K. Sinha, Additional Surveyor General, Survey of India, Dehradun, Uttarakhand

Session Moderator: Shri Anshul Gupta

Shri S. Sambasiva Rao, IAS, Special Secretary, Electronics & IT and Environmental Department, Government of Kerala

Session Moderator: Shri V. R. Vinod

Shri N. K. Sudhanshu, IAS, Director General, YASHADA, Pune, Maharashtra

Shri S. Chockalingam, IAS, Chief Electoral Officer, State Election Commission, Maharashtra

Session Moderator: Shri K Nagendraprasad

Dr. Jayanti S. Ravi, IAS, Additional Chief Secretary, Revenue Department, Govt. of Gujarat

Session Moderator: Smt. Meena Nagaraj C.N.

Shri N. Prabhakara Reddy, IAS, District Collector, Collectorate, District Parvathipuram Manyam, Andhra Pradesh

Session Moderator: Dr. Vishal Kumar

Shri Rajender Kumar Kataria, IAS, Principal Secretary, Revenue Department, Karnataka

Session Moderator: Ms Shilpa Sharma

Shri Sundar Raj S, Director Delivery Excellence, LTIMindtree Limited, Chennai, Tamil Nadu

Shri Palanikkumar Kanagavel, Project Manager – Geospatial, LTIMindtree Limited, Chennai, Tamil Nadu

Session Moderator: Shri Balaguru K

Shri Anoop Patel, Project Manager, M.P. State Electronics Development Corporation Ltd, M.P. Shri Durgesh Singh, Business Analyst, M.P. State Electronics Development Corporation Ltd., M.P.

Session Moderator: Shri Mohd Shabir

Shri Kailash Karthik, IAS, Director of Land Records & Surveys, Assam
Ms. Tanvi Ahmed, ACS, Additional Director of Surveys, Assam
Shri. Mridul Boro, ACS, Assistant Director of Land Records, Assam

Session Moderator: Shri Rishav Gupta

Ms. Namita Khare , Additional Director, MPLRS, Bhopal, Madhya Pradesh
Ms. Vanshika Ingale, Assistant Director, MPLRS, Bhopal, Madhya Pradesh

Session Moderator: Shri Hemraj Bairwa

Shri Bhaskar Sharma, Officer Surveyor, Survey of India, NIGST, Hyderabad, Telangana
Shri Anurag Misra, Surveyor, Survey of India, NIGST, Hyderabad, Telangana
Shri Pravesh Kumar, Officer Surveyor, Survey of India, Hathibarkala Estate, Dehradun, Uttarakhand
Shri Amit Mahajan, Officer Surveyor, Survey of India, Hathibarkala Estate, Dehradun, Uttarakhand

Session Moderator: Shri Lenin Vatsal Toppo

Sd/-
(Dr Bagadi Gautham)
Course Coordinator

Date : 25.10.2025

ANNEXURE III

**B N Yugandhar Centre for Rural Studies
Lal Bahadur Shastri National Academy of Administration,
Mussoorie
Training cum Workshop on NAKSHA Programme
(27th – 28th October, 2025)**

List of Participants

Sl. No.	Name of Participants	Gender	Contact details
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