



भूमि संसाधन विभाग
DEPARTMENT OF LAND RESOURCES
Government of India



International Year
of Cooperatives
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TRAINING CUM WORKSHOP ON NAKSHA PROGRAMME FOR DISTRICT MAGISTRATES/COLLECTORS

(6TH OCTOBER TO 7TH OCTOBER 2025)

COURSE REPORT



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

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



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Mussoorie – 248179**

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DAY 1

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 SESSION

The NAKSHA Training-cum-Workshop commenced with a warm welcome by Shri Snehashish Mishra, Assistant Professor at the BN Yugandhar Centre for Rural Studies (BNYCRS), LBSNAA. He briefly introduced the objectives and work of the Centre, emphasizing its role in addressing contemporary issues in rural and urban governance. Following his remarks, he invited Dr. Bagadi Gautham, Centre Director, BNYCRS and Professor of Public Administration, to deliver the inaugural address.

In his keynote address, Dr. Bagadi Gautham welcomed dignitaries, faculty members, and participants particularly District Magistrates and Senior Administrative Officers from various states. He acknowledged the presence of eminent guests including Shri Manoj Joshi, Secretary, Department of Land Resources (DoLR), Ministry of Rural Development, Government of India; Shri Sriram Tarnikanti, Director, LBSNAA; and Shri Kunal Satyarthi, Joint Secretary, DoLR. He provided a concise overview of the NAKSHA programme, highlighting its future significance and potential. He also touched upon various state-level initiatives under the NAKSHA framework, emphasizing the collaborative effort required for successful implementation.

Shri Sriram Tarnikanti, Director of LBSNAA, in his address, extended a heartfelt welcome to the participating officers and highlighted the Academy's growing focus on urban governance as a core part of its training curriculum. He underscored the need to equip senior civil servants with the skills and knowledge to manage the complex challenges of urban development, particularly in the domain of land use and regulation. He lauded the NAKSHA programme as a timely and strategic intervention and encouraged District Magistrates to champion it in their respective districts using a saturation approach ensuring comprehensive coverage and systematic implementation. He emphasized the role of robust land titling mechanisms in reducing litigation, improving urban planning, and empowering citizens. Additionally, he proposed the introduction of a Faculty Development Programme on NAKSHA, aimed at enhancing awareness and building institutional capacity for sustained impact.

Delivering the special address, Shri Manoj Joshi, Secretary, Department of Land Resources, expressed his gratitude to LBSNAA for taking the initiative to host this important workshop. He acknowledged the pivotal role played by District Collectors in land governance and emphasized the need for a strong, technology-enabled, and transparent urban land management system. He shared valuable insights into the ownership challenges prevalent in the Indian context such as disputes arising from government-issued pattas, inheritance claims, registered sale deeds, and long-term possession without clear legal backing. He underscored the importance of conclusive land titling, and how initiatives like NAKSHA can pave the way for cleaner, more reliable land records, ultimately enhancing trust and efficiency in land transactions. Highlighting global best practices, Secretary, DoLR referenced successful land management systems in European countries, advocating for India to adopt similar models tailored to local contexts. He called upon district officials to act as catalysts for change by embracing digital tools, fostering community engagement, and ensuring rigorous field implementation. He concluded by reiterating that the success of the NAKSHA programme depends largely on the leadership and commitment of field-level administrators, particularly District Collectors, whose active involvement would be instrumental in realizing the vision of improved urban land governance in India.



Overview of NAKSHA Programme

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

Shri Kunal Satyarthi presented an overview of the NAKSHA Programme which stands for the National Geospatial Knowledge-based land Survey of urban Habitations. The initiative serves as a flagship pilot programme aimed at the creation of modernized urban land records through advanced geospatial technologies. He emphasised that the present condition of the maps is extremely poor. No State except few is mutating the maps. He explained that the programme addresses key challenges such as the non-maintenance of urban land records, rapid urbanization, high land value, and frequent ownership disputes that hinder planned urban development and access to credit. The project thus seeks to enhance transparency, accuracy, and accessibility of urban land information across India.



Joint Secretary, DoLR elaborated that the programme is being implemented through a strong collaborative framework involving DoLR, Survey of India (SOI) as the technical partner, MPSEDC as the Web-GIS platform developer, and NIC for cloud and database management. States and Union Territories serve as key stakeholders in providing clearances, establishing State PMUs, and supporting field surveys and integration of land record data. Under the pilot phase, the project covers 27 States and 3 Union Territories, with a sanctioned outlay of ₹194 crores under DILRMP, targeting 1,000 Urban Local Bodies (ULBs) initially, to be scaled up to all 4,912 ULBs in subsequent phases.

He outlined the three-tier implementation approach:

- Map-1: Aerial survey, ORI (Ortho-Rectified Imagery) generation, and feature extraction (2D/3D).
- Map-2: Ground truthing, integration of land records, registration, and property tax data using GNSS rovers.
- Map-3: Claim verification, grievance redressal, and final publication of Urban Land Records.



Shri Satyarthi highlighted the use of cutting-edge survey technologies—Nadir and Oblique Cameras, LiDAR sensors, and GNSS Rovers to produce high-quality spatial datasets. The project also emphasizes capacity building, with master trainers, CoE-level officers, and field survey teams being trained nationwide through the National Institute of Geo-Informatics Science and Technology (NIGST) and Centres of Excellence. He emphasized that the NAKSHA Web-GIS platform will function as an integrated system for all stakeholders, enabling data capture, validation, and public access. The platform supports API-based integration with departments handling registration, property taxation, urban development, and utilities. In conclusion, Shri Satyarthi noted that the NAKSHA initiative represents a major step toward digital transformation of urban land governance, facilitating scientific property taxation, better planning and disaster management, and transparent urban land administration.

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, Survey of India, presented an origin and brief of the NAKSHA Project, highlighting the objectives, workflow, technologies, and key deliverables under the Map-1 stage. He initiated his lecture with liberalization of Geo-spatial technology in 2021. He explained that the project aims to develop a comprehensive digital spatial reference framework for the country using advanced geospatial technologies, which would serve as the foundation for property mapping, 3D modelling, and ground validation. He elaborated that the Map-1 workflow involves several steps: data acquisition using aerial imagery and LiDAR (Light Detection and Ranging) sensors, pre-processing for calibration and geo-referencing, followed by DSM (Digital Surface Model) and DTM (Digital Terrain Model) extraction, generation of ortho-rectified imagery (ORI), 3D mesh and texturing, and vectorization of both 2D and 3D features. Quality assurance and compliance checks are conducted before uploading the datasets to a Web-GIS portal, where state authorities perform ground truthing for further validation under the Map-2 phase.



In explaining the technological components, Shri Sinha mentioned that Nadir Cameras are primarily used for vertical captures, while Oblique Cameras support multi-angle imaging for realistic 3D visualization. LiDAR sensors generate dense point clouds for accurate terrain modelling, particularly useful in hilly regions. He

emphasized that Ortho-Rectified Imagery (ORI) for features extraction of building foot-print, enabling accurate depiction of ground features and supporting validation in areas that are difficult to access. The ORI, combined with DSM and



DTM, forms the Digital Elevation Model (DEM) for Digital Spatial Reference Framework of the nation. The key deliverables under the Map-1 stage include high-resolution ortho-imagery, 2D and 3D GIS datasets of property parcels and utilities, and the integration of these datasets into a Web-GIS platform for validation and public use. Addressing the challenges, Shri Sinha noted the importance of coordination among multiple stakeholders and the need for addressing missing or hidden vertices through field surveys during the Map-2 phase. He stated that 85–90% of property data could be acquired photogrammetrically, while the remaining 10–15% would require ground-based verification. In conclusion, Shri Sinha highlighted that the NAKSHA Project's Map-1 stage has successfully established a robust and scalable geospatial foundation at ULBs level. This framework will significantly aid in Digital India Land Record Modernization (DILRMP), smart governance initiatives, and the development of future-ready urban and rural mapping systems across India.

Practical insights on Aerial data acquisition and field level challenges

Shri Sundar Raj S, Director Delivery Excellence and Shri Leo Selva Prathish, Project Manager - LTIMindtree, Chennai, Tamil Nadu

Shri Sundar Raj S and Shri Leo Selva Prathish of LTIMindtree shared valuable practical insights on aerial data acquisition processes and field-level challenges encountered during the implementation of the NAKSHA Project, undertaken in collaboration with the Survey of India (SOI) and the Department of Land Resources (DoLR). They began by highlighting Larsen & Toubro's legacy of over eight decades in engineering excellence and LTIMindtree's global expertise in geospatial and digital transformation services. The company has executed over 1,000 drone projects, covering more than 100,000 sq. miles, with specialized capabilities in aerial surveying, 3D modelling, digital twin creation, and spatial data analytics.



Under the NAKSHA initiative, LTIMindtree was awarded four packages, the maximum allotted to any single bidder covering 25 cities across southern and northern India. The team's responsibility encompassed aerial data acquisition, generation of Ortho-Rectified Imagery (ORI), DSM, DTM, 3D Mesh, and 3D Vector Models. The presenters explained the aerial survey project lifecycle, which begins with desk studies, terrain and weather analysis, and airspace permissions, followed by flight planning, data acquisition, and secure data transfer for processing. Ground Control Surveys were conducted using CORS and DGNS-based methods, ensuring positional accuracy through a network of base stations, GCPs, and checkpoints. The aerial data

acquisition employed advanced UAV and manned aerial platforms such as the Trinity F90+, Oblique D2M, and QUBE 240, configured for nadir and oblique imagery capture. Data processing involved photogrammetry and LiDAR workflows to create high-resolution ORIs, DSM/DTM layers, 3D Mesh models, and vector datasets aligned with the NAKSHA standards.

Shri Sundar Raj and Shri Leo Selva detailed several operational challenges, including airspace restrictions, weather variability, control point visibility, large data volumes, and delays in statutory clearances. They also discussed mitigation measures, such as initiating early permission requests, coordinating with aviation and defence authorities, using high-performance systems, applying image enhancement techniques, and conducting surveys during optimal weather windows. The speakers emphasized that meticulous planning, advanced technology integration, and robust coordination with SOI and state authorities are crucial to achieving high-quality geospatial outputs. They concluded by reaffirming LTIMindtree's commitment to supporting the NAKSHA programme's vision of building a nationwide, high-precision urban geospatial framework that enables transparent land governance and data-driven urban planning.



Additionally, Sh. Leo Selva started to show the sample datasets of ORI from different locations like Anupshahr, Uttar Pradesh; Marai Malai Nagar, Chennai, Tamil Nadu & Thanjavur, Tamil Nadu. They showcased the 2D ORI data of Anupshahr, Uttar

Pradesh; 3D Mesh Model of the famous Peruvudaiyar Temple (Brihadeeshwara Temple) in Thanjavur, Tamil Nadu and several building structures from the Marai Malai Nagar, Chennai, Tamil Nadu. Following it, they started showing the 3D Vector model i.e., the LOD level 2 data of the buildings which can be used to easily measure the building metrics, like the height, width and area. They even showcased these LOD level 2 data superimposed on the 3D mesh model to showcase the accuracy in the data.

Introduction to GIS & Web-GIS tools

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

This session was delivered and presented by Shri Durgesh Singh and Shri Anoop Patel. It focuses on the NAKSHA project emphasizing the accurate identification and survey of urban land records in India.

The NAKSHA system is a comprehensive GIS platform designed to digitize and manage urban land ownership records, integrating advanced geospatial technologies with web and mobile tools. The initiative is aligned with national land record modernization goals and aims to provide a transparent, accessible, and user-friendly interface for multiple stakeholders including national and state administrators, survey users, urban local bodies, and citizens.



Some of the key points from the presentation include:

- The project encompasses extensive modules across web, mobile, and desktop platforms, such as data download and synchronization, map and image verification, ground truthing, plot correction (split & merge), plot verification, records of rights (RoR) tagging, claim and objection entry, grievance redressal, and final publication of land records.
- NAKSHA integrates with state administrative units by allowing survey activity organization through units such as wards, villages, colonies, sectors, or blocks, providing flexibility for state-specific implementations.

- The system supports APIs for integration with other government databases and revenue systems, enabling streamlined workflows from drone-based feature extraction to final record publication.
- The technology stack includes PostgreSQL/PostGIS databases, ArcGIS and Geo-server GIS application servers, with front-end technologies including Angular for web applications and Flutter and .NET MAUI for mobile applications.
- Advanced survey techniques like CORS rovers for real-time kinematic (RTK) GPS data, drone imagery, and mobile app-based ground truthing contribute to the accuracy and efficiency of land data capture and verification.
- The platform facilitates public participation by allowing online claim and objection filing, with provisions for revenue court updates and dispute redressal.
- To date, the project has onboarded 152 urban local bodies and created 4,280 survey units, with substantial progress in ground truthing, drone flying, feature extraction, and map publication.
- The presentation also highlighted user role management, integration mechanisms, and planned modules still under development focused on enhancing urban land record transparency.

Additionally, they showcased the screenshots of several pages of the web-GIS application where they described about the sections of the applications and their usage. They also started showcasing how the different user roles see different tools based on their requirement. Shri Anoop Patel continued to show the important Ground truthing section where the user can view the field corrected data and can approve or correct it from their end using the available web-GIS application tools like “Merge”, “Split”, etc.



Following the web-GIS application, they started showing the screenshots of the mobile applications and their available tools for the ground truthing task like connectivity options like, Bluetooth connectable with the NRTK Rovers, internet connectivity to connect with CORS, etc. They also mentioned that the mobile application is almost able to connect with various types of NRTK Rovers across many different companies' make. They also started showing the screenshots of the ground truthing process and explained about the functionalities on how the points are captured and many different ways in which the ground truthing can be performed using their mobile application. Overall, the presentation by Shri Durgesh Singh and Shri Anoop Patel showcases the NAKSHA initiative as a significant step toward digitalizing urban land records through modern GIS technology, supporting efficient governance, enhance transparency in land records by providing public access, and sustainable urban habitat management in across India.

DAY 2

Map-2-Ground truthing workflow & outputs

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

The Session was delivered by Shri Sambasiva Rao, IAS, Special Secretary (Electronics & IT, Environment) & Director Survey, Govt. of Kerala, focused on Ground Truthing for MAP2 preparation. Shri Rao presented a PPT on Kerala's *Ente Bhoomi Digital Survey Mission* and its integration under the NAKSHA framework to achieve conclusive land titling through modern survey technologies and citizen-centric governance, were introduced to the workflow of ground truthing using drones, RTK GNSS rovers, Robotic ETS, and a WebGIS-based survey management system.

Some of the highlights which were presented during the session are as follows:

1. Brief overview of Land Administration in Kerala: Pre ente Bhoomi (Revenue, Survey and Registration)
2. Why Digital Survey Design Matters
3. Conceptual Foundations for Designing a Digital Survey Program
4. Mission: Transformation of Land Governance
5. Use of CORS infrastructure (28 stations) for real-time positional corrections ensuring 5 cm spatial accuracy.
6. Ground verification process integrating drone imagery (ORI) with GNSS data for parcel mapping.
7. End-to-end survey workflow covering data collection, QC, grievance handling, and publication under Sections 9(2) & 13.
8. Quality control protocols at multiple levels ensuring reliability and transparency of survey outputs.
9. Citizen engagement through *Survey Sabha* and *Jagratha Samithi*, supported by SMS alerts and online verification.
10. Field monitoring via real-time dashboards (CORS, RTK, MDM) ensured effective supervision and accountability.

The session demonstrated Kerala's pioneering use of technology to unify Survey, Revenue, and Registration services on a single platform Integrated Land Information

Management System (ILIMS i.e., **Ente Bhoomi**) enabling *auto-mutation, online land record access, and digital grievance redressal*. Shri Sambasiva Rao also focused on the NAKSHA process flow while demonstrating the MAP-1, MAP-2, and the MAP-3 processes. He emphasized on 'Ente-Bhoomi' which means end to end digital land survey. He also integrated his deliverable with use of live location option in Ente-Bhoomi to map the corresponding land register. In his discourse, he presented that the State of Kerala has adopted three-tiered level mechanism. The session was concluded by emphasizing the broader implications of Kerala's digital survey mission as a model for conclusive land titling and governance modernization in India. It demonstrated how a combination of advanced technology, participatory governance, and institutional integration could resolve long-standing issues in land management. Through extensive field-based learning, exposure visits, and live demonstrations of Ente Bhoomi's functionalities, participants gained a holistic understanding of how digital workflows, quality assurance, and citizen empowerment converge to create a transparent, efficient, and future-ready land administration system.

After concluding his session, Shri Kunal Satyarthi, Joint Secretary, DoLR put some questions before him related to the usefulness of ORI and the movement of other documents apart from registered deed and Record of Rights. In response to the questions, Shri Sambasiva responded that the assessment of quality is crucial and the ORI is extremely useful provided that the canopy area is not there. ORI is used for visualization purpose but canopy issue is a reality.

Administrative & legal framework for NAKSHA implementation & Best Practices on IEC and awareness plans for NAKSHA implementation

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

The deliberation by Shri N. K. Sudhansu, IAS, Director General, YASHADA, and Shri S. Chockalingam, IAS, Principal Secretary and Chief Electoral Officer, Maharashtra, focused on the administrative and legal framework governing the NAKSHA initiative in the state. The discussion highlighted the evolution of land administration processes and their integration with modern technologies such as drones, GIS, and online platforms for city and town surveys.

Shri Sudhansu began the session with interactions to the participants in which some issues were raised by the SDM, Kirti Nagar, Tehri Garhwal, Uttarakhand, Smt. Neelu Chawla who underlined the importance of institutional coordination, trained staffs with modern survey techniques, maintenance of property tax records, legal challenges under the existing acts, noting that effective land governance depends on the combined roles of the Revenue, Land Records, and Urban Development Departments. Shri Sudhansu emphasized on the power for the certification of ownership, the need for a transparent system that facilitates real-time ownership verification, dispute resolution, and public access to property records through digital means. He further elaborated the challenges about the unsurveyed land where



residents use to live since years or called slums. He then also put an important question for the importance of re-survey and the city/town surveys.

Taking the session forward, Shri Chockalingam emphasized on the Process flow of NAKSHA under Legal framework and the Administrative framework. Shri Chockalingam stressed the legal provisions under the Maharashtra Land Revenue Code (MLRC) 1966 and related rules particularly Sections 79, 83, 122, 126, and 247 which empower the government to conduct village, town, and city surveys, confirm ownership, and adjudicate disputes. He highlighted that survey and enquiry officers are vested with quasi-judicial powers to summon witnesses, verify documents, and conduct formal enquiries under oath. He also deliberated that the mere duty of an Enquiry Officer or the District Collector is to fix the legal boundary, bound the property and confirming the ownership. During his discourse, Centre-Director clarified, that strategic communications should be used while conducting the survey, to the participants. He then moved ahead and discussed about the 'Not having the records' and 'Having the records'. Shri Chockalingam presented about the Adverse Possession in connection with the Section 27 and Article 112 of the Limitation Act, 1963 which speaks about the 12 and 30 years of period-limitation for the individual and the Govt., respectively. Shri Chockalingam also presented the definitions of the Occupant, Holder of Land, and the Title-Holder. After his discourse, Shri Sudhansu took the session forward while discussing the Section 79 and Section 126 of the Maharashtra Land Revenue Code, 1966 which depicts the Revenue Survey and the City/Town Surveys respectively. He also presented the Procedure of Enquiry under the Maharashtra Land Revenue Rules, 1969 and the powers of the Enquiry Officers.



In the Administrative set up for NAKSHA, Shri Chockalingam and Shri Sudhansu delivered about the creation of a legal regime, and also about the Model Act for the NAKSHA scheme. They put forward the solution during conducting the survey under NAKHA programme that what documents should be considered. They also emphasized the sources of conflict at the time of enquiry. Some are as improper services of summons and notices, ownership dispute, boundaries dispute, and the mismatch of area with the existing records. Shri Chockalingam also discussed about the challenges like clashing of the two records which means textual records updated quickly while cadastre maps do not update quickly. He then proposed some resolutions like finalization of record of public utilities, superimposing the survey map with the ORI and demarcating the land first. Shri Sudhansu then briefed about the three kinds of properties in urban areas i.e., approved layout, approved building plan but layout not approved, construction of buildings without permission, and the encroachment or slums.

The officers collectively discussed how the NAKSHA framework ensures that each stage from record collection and ownership enquiry to promulgation and publication of property cards is carried out transparently and efficiently. They emphasized the use of drones and rovers for accurate boundary demarcation and the integration of digital tools for objection handling, online issuance of Sanads, and publication of property cards. They also acknowledged key challenges such as mismatches in legacy records, boundary disputes, encroachments, and inter-departmental coordination. The importance of IEC and capacity-building initiatives including stakeholder awareness, staff training, and community engagement was underlined as critical to the project's success. The officers detailed post-flying technical processes, such as ortho-rectification, geo-referencing, image stitching, and ground truthing using Electronic Total Stations (ETS). The integration of spatial and textual data enables high-precision mapping and verification of land parcels. Subsequent enquiry stages involve issuing notices, conducting hearings on objections, and finalizing records. In conclusion, Shri Sudhansu and Shri Chockalingam underscored that the integration of technology, legal preparedness, and administrative efficiency in land governance marks a transformative leap in

India's cadastral management. The modern surveying framework not only strengthens the accuracy of land records but also reinforces trust, accountability, and long-term sustainability in land administration.

GNSS/ETS demonstration and Hands-on session on modern survey techniques for land parcel survey

Shri Anurag Mishra and Shri Bhaskar Sharma, Officer Surveyor, National Institute of Geo-Informatics Science and Technology (NIGST), Hyderabad, Survey of India

The session commenced with an introductory address by Shri Anurag Mishra and Shri Bhaskar Sharma, Officer Surveyor, National Institute of Geo-Informatics Science and Technology (NIGST), Hyderabad, Survey of India. Shri Mishra provided a comprehensive overview of modern surveying instruments, focusing particularly on the Global Navigation Satellite System (GNSS) Rover and the Electronic Total Station (ETS) devices. He explained the fundamental principles of satellite-based positioning and the role of GNSS in achieving high-precision spatial data for land and cadastral surveys.

In addition, Shri Mishra highlighted the growing application of GNSS technology through mobile and handheld devices, emphasizing its utility in field data collection, real-time positioning, and integration with digital mapping platforms. A live demonstration followed, wherein he illustrated the functioning of the GNSS Antenna and Receiver, and the Controller unit used for capturing geospatial coordinates, including latitude, longitude, and elevation.

After the technical briefing, participants were divided into four teams and guided to the field area for a hands-on practical exercise. Each team was assigned specific tasks involving the operation of GNSS and ETS instruments, data capture, and processing of survey information. This interactive field session enabled participants to gain first-hand experience with the instruments, understand data acquisition workflows, and appreciate the precision and efficiency offered by modern survey technologies in land administration and mapping applications.



The Training cum Workshop on NAKSHA Programme for the two days concluded with a vote of thanks delivered by representatives from the BNYCRS, followed by the distribution of certificates to the participants and the tokens of appreciation to the participants in recognition of their valuable contribution to the training programme.

ANNEXURES

Annexure I	Sample Nomination letter sent to states to nominate District Magistrates for the workshop.
Annexure II	Schedule of the "Training cum Workshop on NAKSHA Programme for District Magistrates/ Collectors" (06 – 07 October, 2025)
Annexure III	List of Participants attending the 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: 09th September, 2025

Subject: Nomination of District Magistrates for the "Training cum Workshop on NAKSHA for District Magistrates/ Collectors" at LBSNAA, Mussoorie (06-07 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 06th to 07th 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 **26th September, 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. Bagadi Gautham)

Shri Manoj Ahuja, IAS
Chief Secretary
Government of Odisha
General Administration Department
Odisha Secretariat
Bhubaneswar – 751 001
Odisha

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 – 248179

**Training cum Workshop on NAKSHA Programme for District Magistrates/
Collectors (06 – 07 October, 2025)**

Time (in Hrs.)	Session(s)	Guest Speaker(s)
Day 1		
09:30 – 10:00	Inauguration Programme – Separate Minute to Minute programme will be issued	
10:00 – 10:30	GROUP PHOTO and TEA BREAK	
10:30 – 11:45	Overview of NAKSHA Programme	Shri Kunal Satyarthi, Joint Secretary, DoLR, MoRD, GoI
11:45 – 13:00	Map-1: workflow & deliverables under NAKSHA	Shri S. K. Sinha
13:00 – 14:00	LUNCH	
14:00 – 15:15	Practical insights on Aerial data acquisition and field level challenges	Shri Sundar Raj S. and Shri Leo Selva Prathish
15:30 – 17:00	Introduction to GIS & Web-GIS tools	Shri Durgesh Singh and Shri Anoop Patel
17:00 onwards	TEA BREAK	

Day 2		
09:30 – 11:00	Map-2: Ground truthing workflow & outputs	Shri S. Sambasiva Rao, IAS
11:00 – 11:30	TEA BREAK	
11:30 – 12:45	Administrative & legal framework for NAKSHA implementation	Shri N. K. Sudhansu, IAS and Shri S. Chockalingam, IAS
12:45 – 13:45	LUNCH	
13:45 – 14:45	Best Practices on IEC and awareness plans for NAKSHA implementation	Shri N. K. Sudhansu, IAS and Shri S. Chockalingam, IAS
15:00 – 16:30	GNSS/ETS demonstration and Hands-on session on modern survey techniques for land parcel survey	Shri Bhaskar Sharma, Shri Anurag Misra, Shri Pravesh Kumar and Shri Amit Mahajan
16:30 – 16:45	Vote of Thanks	Shri Snehasis Mishra, Assistant Professor, BNYCRS
16:45 – 17:00	Certificate Distribution	

P.T.O

Guest Speakers and Session Moderators

Shri Kunal Satyarthi, IFS, Joint Secretary, DoLR, MoRD, Gol

Session Moderator: Shri Nishant Kumar Yadav, IAS, Deputy Commissioner, Chandigarh

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

Session Moderator: Shri Amit Prakash Yadav, IAS, Collector & District Magistrate, Kheda, Gujarat

Shri Sundar Raj S., Director Delivery Excellence, LTI Mindtree, Chennai

Shri Leo Selva Prathish, Project Manager, LTI Mindtree, Chennai

Session Moderator: Shri Anna Sudhan, IAS, OC Local Bodies, Barabanki, Uttar Pradesh

Shri Durgesh Singh, Business Analyst (Lead), MPSeDC

Shri Anoop Patel, Project Manager, MPSeDC

Session Moderator: Shri Lok Bandhu, IAS, Collector and District Magistrate, Ajmer, Rajasthan

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

Director of Survey and Land Records Department, Government of Kerala

Session Moderator: Shri Himanshu Jain, IAS, DC, Ludhiana, Punjab

Shri Bhaskar Sharma, Officer Surveyor, NIGST, Hyderabad

Shri Anurag Misra, Surveyor, NIGST, Hyderabad

Shri Pravesh Kumar, Officer Surveyor, Survey of India, Dehradun

Shri Amit Mahajan, Officer Surveyor, Survey of India, Dehradun

Session Moderator: T.Benith IAS, District Magistrate, Barnala, Punjab

Shri N. K. Sudhansu, IAS, DG, YASHADA

Session Moderator: Shri Ajay Kumar, IAS, Deputy Commissioner, Gurugram, Haryana

Shri S. Chockalingam, IAS, Principal Secretary & Chief Electoral Officer, Maharashtra

Session Moderator: Shri Praveen Chaudhary, IAS, District Magistrate / Collector, Anand, Gujarat

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Annexure III

B N Yugandhar Centre for Rural Studies
Lal Bahadur Shastri National Academy of Administration, Mussoorie
Training cum Workshop on NAKSHA Programme on 6th-7th October, 2025

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