

Centre of Excellence

BN Yugandhar Centre for Rural Studies
Lal Bahadur Shastri National Academy of Administration, Mussoorie

Course Report on First Batch of

5-Days “Training of Master Trainers” under NAKSHA Programme

At Indira Bhawan, LBSNAA, Mussoorie

(2nd – 6th June, 2025)

Introduction:

The Centre of Excellence in Land Administration and Management (CoE), BN Yugandhar Centre for Rural Studies (BNYCRS), Lal Bahadur Shastri National Academy of Administration (LBSNAA), Mussoorie, organized first batch of 5-days “Training of Master Trainers under NAKSHA Programme” on 2nd to 6th June 2025 at the Indira Bhawan campus, LBSNAA, Mussoorie. The training programme was conducted in accordance with programme structure curated and designed by the Department of Land Resources (DoLR), Ministry of Rural Development (MoRD), Government of India. The participants of the training programme were from 31 Urban Local Bodies (ULBs) across six CoE States, namely **Bihar, Jharkhand, Odisha, Uttarakhand, Uttar Pradesh, and West Bengal**.

The Master Trainers’ training programme included four days of classroom and demonstration sessions at Indira Bhawan, LBSNAA and one day of practical sessions and demonstrations on the campus of the Survey of India. Experts and resource persons from Madhya Pradesh State Electronics Development Corporation Ltd. (MPSEDC), the National Institute for Geo-Informatics Science and Technology (NIGST), the Governments of Andhra Pradesh and Odisha and L&T Mindtree (Corporate) were invited to lead the sessions.

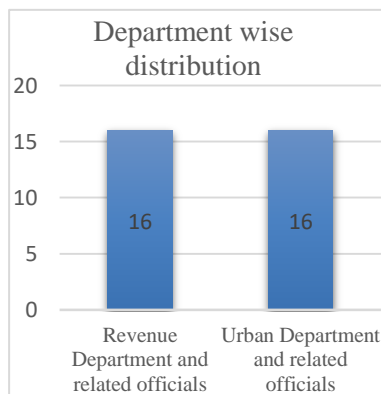
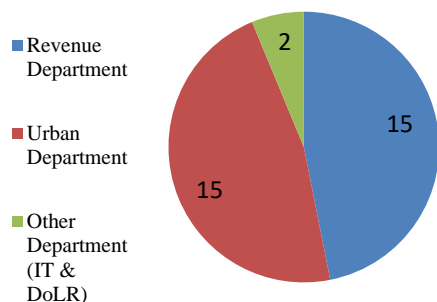
A team of trainers from the Survey of India provided hands-on training in the use of survey tools such as the GNSS Rover, Oblique Rover and Electronic Total Station (ETS), followed by lab sessions on the use of QGIS, aligned with the ground-truthing methodologies proposed under the NAKSHA programme.

Brief profile of the participants:

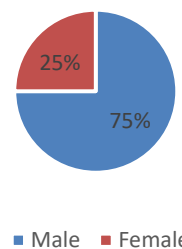
Out of total 32 participants, 15 participants were from the revenue departments and 15 participants were from urban departments and the rest participants were from GIS units of revenue/urban departments. The diversity of the participants of the training programme had provided an effective interactive platform to the trainees. The designation wise distribution of the trainees is as follows:

Under this Master training programme, there were 4 SDMs, 5 Executive Officers, 1 Assistant Municipal Commissioner, 1 Tehsildar, 2 Additional Tehsildars, 2 Assistant Settlement Officers, 3 Assistant Town Planning Supervisors, 1 Assistant Town Planner, 1 Assistant Executive Engineer, 2 Assistant Engineers, 1 Junior Engineer, 1 Consultant DILRMP, 2 Revenue Officers, 2 Revenue Inspectors, 2 GIS Professionals, 1 City Level Technical Cell Official, and 1 Urban Infrastructure Expert, trained as master trainers.

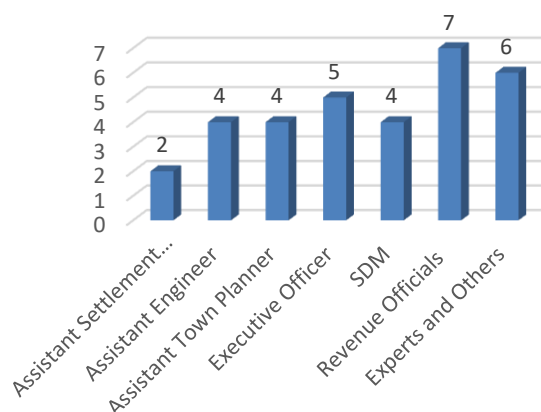
Total No. of Participants-32



Gender-wise distribution



Designation wise distribution



Training Methodology

The 5-day training was designed to integrate **conceptual clarity, technical skills and field applicability** through:

- Expert lectures and case-based discussions
- Live demonstrations and simulation exercises
- Hands-on practice with GNSS, ETS, and GIS software
- Interactive sessions on legal and administrative best practices
- Exposure visits and on-field equipment handling

Participants engaged in a sequence of **classroom sessions, lab work and demonstrations**, ensuring practical readiness to implement the NAKSHA programme.

Training Highlights

Inaugural session

The Centre Director, in his welcome address, set the tone for the training programme by highlighting the objectives of the Master Trainers' programme and outlining the expected outcomes. Following the welcome address, Secretary and Jt. Secretary of DoLR briefed about the NAKSHA Pilot Programme, outlining its overview, objectives, aims, and future roadmap. The Joint Secretary, DoLR, delivered a comprehensive presentation on NAKSHA, covering key aspects such as the status of drone procurement, establishment of State Project Management Units



(SPMUs), work progress, financial updates and the state-wise status of work completion across all Centres of Excellence (CoEs) established under DoLR. The presentation also highlighted the programme's future plans and strategic direction.

Day-wise Highlights

Day 1:

- Overview of NAKSHA and the technology ecosystem of survey & management of urban property records.
- Basic concepts of surveying, evaluation of surveying, core-objectives and wide scope of surveying use for mapping of India, classification, types and background of survey techniques
- Introduction to drone-based aerial surveys using NADIR, Oblique and LiDAR sensors
- Demonstration of GNSS Rovers and ETS tools



Day 2:

- GIS fundamentals and introduction to MPSEDC's Web-GIS portal and mobile application (UrPro)
- Practical exercises on parcel editing and field data integration



Day 3:

- Drone data collection demo and data processing using Pix4D
- QGIS-based polygon digitization and coordinate projections
- Skill training on Map-2 deliverables and ground-truthing strategies



Day 4:

- Field visit to **Survey of India, Dehradun**
- Hands-on training with GNSS Rovers and ETS tools
- GIS lab work on data import, editing and attribute handling using QGIS
- Field-based evaluation and performance assessment



Day 5:

- Best practices and state-level innovations in Urban land records management and property survey, legal frameworks, drone surveying protocols and land governance strategies
- Presentation of case studies and the "Golden Rule" of land survey validation reconciliation of- Possession, RoR and Legacy Records
- Legal and administrative implications of Land Acts on



NAKSHA

- Feedback and open discussions

Training outcomes

By the end of the programme, 32 participants were:

- Well-versed in modern survey techniques, aerial data acquisition, and GIS tools
- Trained in the use of GNSS rovers, ETS, and QGIS for map validation and editing
- Aware of legal frameworks and administrative protocols to support conclusive land titling
- Equipped to function as Master Trainers for the NAKSHA Pilot in their respective states



Group Photograph of all the participants of First Batch with Centre Director, CoE, BNYCRS, LBSNAA

Participant Reflections & Recommendations

During the feedback session, participants expressed:

- Appreciation for the balanced mix of conceptual depth and technical exposure
- Requests for state-specific legal modules and additional GIS lab sessions
- Recommendations to deploy dedicated GIS experts with field teams
- Interest in peer-to-peer learning and cross-state collaborations going forward

Closing Ceremony & Certification

The training concluded with the **distribution of certificates** and an expression of commitment from participants to contribute actively to the rollout of training programmes under NAKSHA in their respective states.

