

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

**Course Report on Second Batch of**  
**5-Days “Training of Master Trainers” under NAKSHA Programme**

**At Indira Bhawan, LBSNAA, Mussoorie**

**(23<sup>rd</sup> – 27<sup>th</sup> 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 a second batch of Phase II, 5-days “Training of Master Trainers under NAKSHA Programme” on 23<sup>rd</sup> to 27<sup>th</sup> 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) selected for pilot programme and respective districts across six States *viz.* **Bihar, Jharkhand, Odisha, Uttarakhand, Uttar Pradesh, and West Bengal.**

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

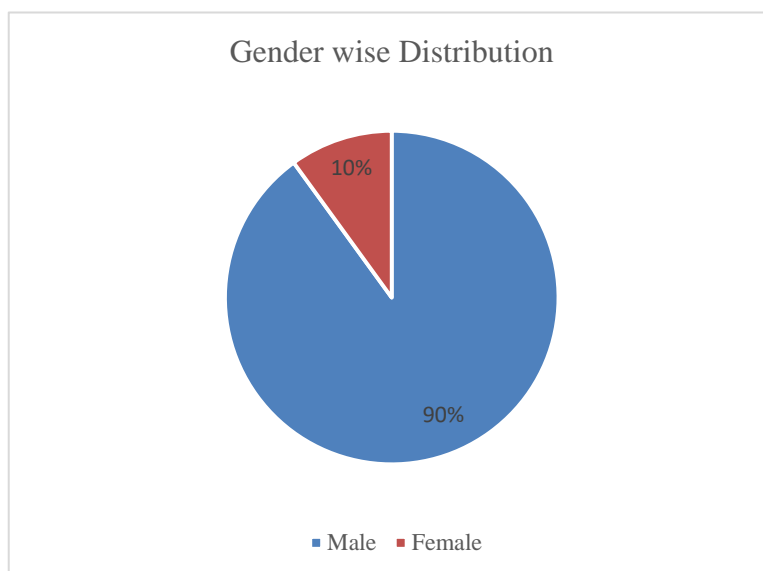
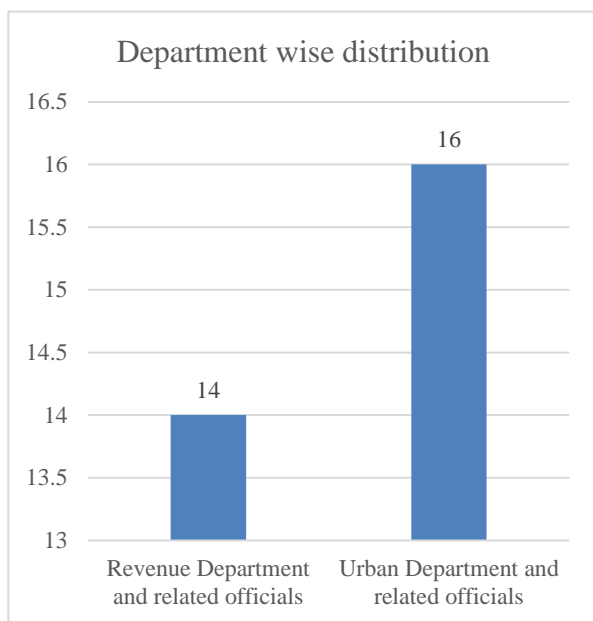
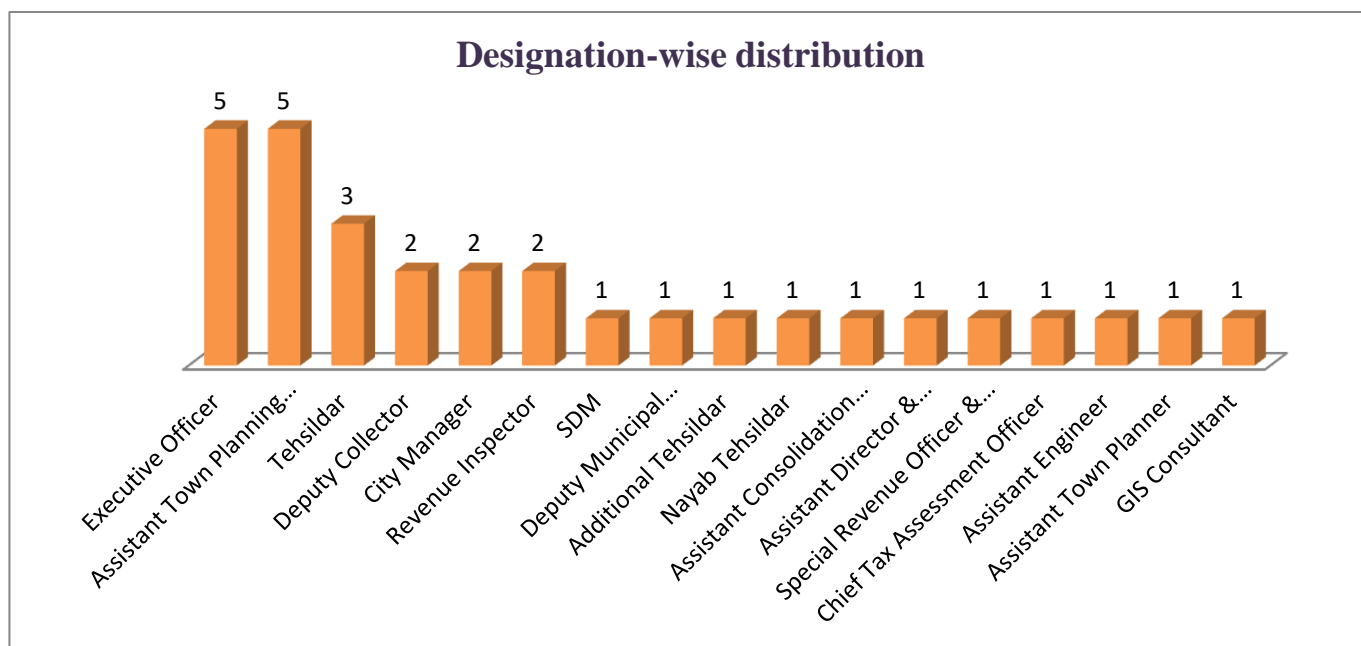
A team of trainers from the Survey of India provided hands-on training in the use of survey tools such as the GNSS Rover, Oblique Rover and Electronic Total Station (ETS), followed by lab sessions on the use of QGIS, aligned with the ground-truthing methodologies proposed under the NAKSHA programme.

**Brief profile of the participants:**

Out of total 30 participants, 14 participants were from the revenue departments and 15 participants were from urban departments and one participant was from GIS unit of Department of Land Records. 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 2 Deputy Collectors, 1 SDM, 1 Deputy Municipal Commissioner, 5 Executive Officers, 3 Tehsildars, 1 Additional Tehsildar, 1 Nayab Tehsildar, 1 Assistant Consolidation Officer, 2 City Managers, 1 Assistant Director & Technical Advisor, 1 Special Revenue Officer & Technical Advisor, 1 Chief Tax Assessment Officer, 1 Assistant Engineer, 5

Assistant Town Planning Supervisors, 1 Assistant Town Planner, 2 Revenue Inspectors, 1 GIS Consultant, trained as master trainers.



## 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, Jt. Secretary & Director of DoLR briefed about the NAKSHA Pilot Programme, outlining its overview, objectives, aims, and future roadmap. The Director, 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 Centers of Excellence (CoEs) established under DoLR. The presentation also highlighted the programme's future plans and strategic direction.



### Day-wise Training deliverables

#### **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



- Online Session on UrPro Card

#### 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
- Interactive peer learning sessions enhanced knowledge sharing, with participants showing keen interest and involvement.
- 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, 30 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
- Peer-to-peer learning sessions fostered cross-state collaboration, allowing participants to share field-level experiences, innovative practices, and region-specific solutions.

#### 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

## 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.



Group Photograph of all the participants of second batch with Centre Director, CoE, BNYCRS, LBSNAA