

**MEMORANDUM OF UNDERSTANDING (MOU)**

**BETWEEN**

**GOVERNMENT OF UTTARAKHAND (GoUK)  
THROUGH COMMISSIONER CUM SECRETARY,  
BOARD OF REVENUE, UTTARAKHAND**

**AND**



**GOVERNMENT OF INDIA (GoI)  
THROUGH SURVEY OF INDIA (SOI)**

**FOR**

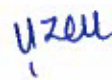
**SURVEY/RE-SURVEY OF ENTIRE REVENUE RECORDED LAND,  
STATE OF UTTARAKHAND**

**SIGNED ON**

**08<sup>th</sup> DAY OF SEPTEMBER MONTH 2023 YEAR**

	 उत्तराखण्ड राज्य
<p><b>SURVEY OF INDIA DEPARTMENT OF SCIENCE &amp; TECHNOLOGY GOVERNMENT OF INDIA</b></p>	<p><b>BOARD OF REVENUE UTTARAKHAND, DEPARTMENT OF REVENUE GOVERNMENT OF UTTARAKHAND</b></p>





**Memorandum of Understanding between Government of Uttarakhand (GoUK) and Survey of India (SoI), Government of India**

**The Memorandum of Understanding is made and entered into, on the 08<sup>th</sup> Day of September month of the year 2023**

**Between**

The **President of India**, acting through Surveyor General of India, SOI, Ministry of Science and Technology, Govt of India having Office at Hathibarkala Estate, Dehradun- 248001; hereinafter referred to as Survey of India (which expression shall, unless excluded by or repugnant to the context, be deemed to include his successors in Office and assignee) of the First Part

**And**

The **Governor of Uttarakhand**, acting through Commissioner Cum Secretary, Board of Revenue, Uttarakhand Department of Revenue, Government of Uttarakhand which is called as Chief Executive Officer, Project Management Unit, Digital India Land Record Modernization Programme (DILRMP) having office at Ring Road, Mussoorie Bypass, Ladpur, Dehradun- 248001; hereinafter referred to as GoUK through Chief Executive Officer/Commissioner Cum Secretary(CEO/C&S); (which expression shall, unless excluded by or repugnant to the context, be deemed to include his/her successors in Office and assignee) of the Second Part.

- WHEREAS the Survey of India, as the overarching nodal Agency of Govt. of India for Geospatial data with the responsibility as a lead organisation for Fundamental Geospatial themes - *Geodetic Reference Frame, Ortho-imagery, Elevation (DEM), Functional Areas (Administrative Boundaries) and Geographical Names (Toponymy) as per National Geospatial Policy 2022 and to act as Facilitator in harmonization of the data sets created using public money to ensure that data generated from various mapping activities by various stakeholders get seamlessly integrated into Geodetic Reference Framework and to develop a mechanism for facilitating consolidation of the data sets into the National Topographic Template to meet the demand of periodically updated, high-resolution and accurate topographic data for the country.*

AND WHEREAS Government of Uttarakhand has approved to conduct Survey/Re-Survey of entire revenue recorded land {other than forest and 14 ULB's (name as Rudrapur, Haldwani, Haridwar, Dehradun, Almora, Chamoli-Gopeshwar, Rishikesh, Roorkee-NN, Nainital, Pauri, Kotdwar-NN, Pithoragarh, Kashipur-NN & Mussoorie) in Uttarakhand State.

AND WHEREAS Department of Science & Technology, Government of India has approved the signing of Memorandum of Understanding with Government of Uttarakhand vide Department of Science & Technology, letter no. T-1512/1147-Project (LSM-UK)/Coll.1 (6055) Dated 31<sup>st</sup> July, 2023 and Survey of India has accepted the said request for performing its role mandated in NGP 2022.


## BACKGROUND

Government of Uttarakhand has decided to take up Survey and mapping of the entire revenue recorded land (other than forest and 14 ULB's) in state with use of modern technology under the Digital India Land Record Modernization Programme (DILRMP), as the existing records are based on surveys conducted about 65 years ago, are not reflecting the actual ground reality and thus unable to fulfil the present requirements. This will be followed by cadastral Survey/Resurvey leading to conclusive titles.

The geospatial data generated by survey and mapping activities will also act as base for integration of data of various other departments of GoUK including Revenue Department, Housing Department, Urban Development, PWD Department, UJVNL/ UPCL/ PTCL, Irrigation, Agriculture Department, Disaster Management, Panchayati Raj etc.

## 2. SCOPE OF THE WORK

- 2.1 **Data Acquisition:** Suitable sensors and platform shall be used for high resolution **DEM and ORI Generation** for entire revenue recorded land (other than forest and 14 ULB's) Uttarakhand State. CORS Network and GCPs/Benchmark Library of SOI will be used to seamlessly integrate the surveys with National Geodetic Reference Frame (NGRF).
- 2.2. **Geo-referencing of existing Cadastral Maps with ORI and Vectorisation:** The existing cadastral maps will be geo-referenced with the help of digital framework provided by ORI and post pointed GCPs as necessary. The details of the existing maps shall be vectorised thereafter. Alternatively, if the vector data of cadastral maps are already available, the same shall be georeferenced.
- 2.3. **Linking of existing Record of Rights (RoR) data with geo-referenced vector data of existing cadastral maps.**
- 2.4 **Creation of Topographic Template:** 2D/3D topographical Feature extraction shall be carried out for Rural/Urban areas as per the Standard Spatial Data Model Structure (SDMS) for National fundamental Geospatial data themes.
- 2.5 **Resurvey for Parcel Boundary updation and collection of ownership data.**
- 2.6 **Digitalisation of data/records of various departments for integration with administrative boundary/topographical feature:** The digitalised data/records of departments of GoUK including Revenue Department, Housing Department, Urban Development, PWD Department, UJVNL/ UPCL/ PTCL, Irrigation, Agriculture Department, Disaster Management, Panchayati Raj etc will be integrated into a GIS.
- 2.7. **Storage and management of data acquired/generated:** Several petabytes of data in form of DEM, ORI etc will be generated during the course of work which will require highly skilled expertise in the domain of ICT for proper storage, management and maintenance of digital data.
- 2.8. **Creation of LIS/GIS ready data:** The vector data generated from ORI and field surveys shall be linked with updated ownership data collected from field and legacy digitalised and geo-coded data of various departments to create skeletal GIS ready data for supporting various applications as per the requirements of GoUK.
- 2.9. **Development of Geo-Portal:** A Geo-Portal for GoUK will be developed for sharing of data and services within the Govt. department and to public. The Geo-portal can also be made use for implementation of workflows during development of GIS.



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**2.10. Training:** Training of GoUK Technical Staff of the revenue department as per the requirements.

### **3. ROLES AND RESPONSIBILITIES**

#### **3.1 Survey of India (SOI)**

As Technical Partner/Advisor for GoUK, the key Roles and Responsibilities of SOI will be as follows:

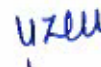
- (i) To facilitate PMU at BoR, GoUK for preparation of the tenders documents for the components at para 2.1, 2.2 & 2.4 on behalf of GoUK and facilitate to finalize the tender process. Play lead role in management of such contracts and tendering/monitoring, associated third-party QA/QC Contracts.
- (ii) To Facilitate PMU, GoUK in preparing tenders documents of remaining components at para 2.3, 2.5, 2.6, 2.7, 2.8, 2.9 and management of such contracts.
- (iii) To provide data and services for integrating with NGRF.
- (iv) To provide the Standard Data Model Structure (SDMS) for the themes comprising Topographical Template in creation of Base Layers for development of GIS.
- (v) To provide training for Geospatial Skill development of the officers and staff of GoUK.
- (vi) One copy of DEM, ORI and other Geospatial Data comprising the Topographical Template shall be Stored, managed and maintained by SOI – as a part of National Digital Spatial Framework.
- (vii) To Facilitate PMU, GoUK in record operation process.

#### **3.2 Government of Uttarakhand (GoUK):**

- (i) Preparation and finalization of the tenders documents at para 2.1, 2.2 & 2.4 and management of such contracts with the help of SOI.
- (ii) To prepare the tender documents for the components at para 2.3, 2.5, 2.6, 2.7, 2.8, 2.9 and finalize the tender process with the help of SOI. Play lead role in management of such contracts and tendering /monitoring of associated third-party QA/QC Contracts.
- (iii) To share one copy of DEM, ORI and other Geospatial Data themes that are part of Topographical Template – for storage, management and maintenance by SOI as part of National Geospatial Data Infrastructure.
- (iv) Finalization of SDMS for themes other than Topographical Templates which will be required for development of GIS/LIS with SOI as facilitator.
- (v) To provide funds for the various Contracts/activities under the project.
- (vi) To carry a record operation process with the help of SOI in technical aspect.

#### **4. Joint Responsibility : Project Management**

**4.1 Project Management Unit (PMU)** will be formed under DILRMP headed by Chief Executive Officer/Commissioner Cum Secretary, Board of Revenue, Uttarakhand and having members from GoUK and Survey of India to manage the Project under the umbrella of MoU.



4.2 Governing Body of DILRMP under the chairmanship of Chief Secretary, Government of Uttarakhand may invite external experts if required, to support and guide the PMU. A dedicated team of SOI will support the PMU for Project implementation.

5. **Ownership of Data:** The ORI, DEM and data required for national topographic template shall be jointly owned by GoUK and SOI. Both the Parties shall have full rights to use the data generated under this project for their mandated activities and internal applications. Other data generated under the MoU shall be owned by GoUK.
6. **Exit Management:** The decision on exit/extension of the MoU shall be on mutual consensus between SOI and GoUK. There shall be proper transitioning of work based on a signed off transition plan mutually agreed upon by the two Parties.

7. **Deliverables:**

7.1 **Deliverable to be generated with SOI in Lead Role:**

Following deliverable shall be provided by SOI to GoUK

- (i) ORI: 5-10 cm for urban & rural areas and 50 cm-100 cm for forests & wastelands (Para 2.1)
- (ii) DEM: 25 cm for plain, 1-3 metre for hilly and mountainous areas (Para 2.1)
- (iii) Vector Data comprising the Topographical Template (Para 2.4)
- (iv) Georeferenced Cadastral Maps (Para 2.2)

7.2 **Deliverables to be Generated by GoUK in Lead Role**

- (i) Existing Record of Rights (RoR) data linked to geo-referenced vector data of existing maps
- (ii) Resurveyed for Parcel Boundary layer with ROR.
- (iii) Geo-referenced map data and Geo-coded attribute data of existing records held with various departments of GoUK including Revenue Department, Housing Department, Urban Development, PWD Department, UJVNL/ UPCL/ PTCL, Irrigation, Agriculture Department, Disaster Management, Panchayati Raj etc
- (iv) GIS, LIS as per scope to be finalized by GoUK
- (v) Geoportal for GoUK

8 **Monitoring & Implementation Unit**

- 8.1 Survey of India shall establish a separate unit under the Nodal Officer appointed by SOI for this project. One Officer from Survey of India shall be appointed exclusively for the project.
- 8.2 In addition to Project Management Unit as mentioned in Para 4.1 above this unit will be responsible for supervising day to day technical activities of the project. This unit will also ensure that best technical practices are followed for execution of project.

9 **Time Schedule**

The entire project will be completed in twenty four months from the date of award of work. The time schedule will be calculated on or after date of awarded contract.

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## 10 Financial Terms and Conditions

### 10.1 Funds

Funds for execution of all the components of work mentioned in Para 2 shall be borne by GoUK. The cost for storage/management/maintenance of one copy of Topographical Template/data shall be borne by SOI. Actual cost of the project will be calculated after the tendering process which will be borne by the GoUK.

### 10.2 Release of Payment

10.2.1 All payments shall be released by the GoUK as per the tender payment terms and conditions. PMU shall examine and process the raised bills of all payments in a time bound manner and shall approve for the release of payments. Thereafter, the approved payments shall be released by CEO/C&S, Board of Revenue, as per the tender payment terms.

10.2.2 No Salary cost and overhead charges would be charged by the Survey of India towards the services of Survey of India personnel or officers in various capacities in execution of this project.

## 11 Other Aspects of Memorandum of Understanding

### 11.1 Arbitration

In the event of any dispute or difference relating to the interpretation and application of provisions of this Memorandum of Understanding, such dispute or difference shall be referred by either Party for Arbitration at the First level (tier), to a Committee comprising of Secretaries of the Administrative Ministries / Departments to which the disputing Parties belong and Secretary, D/o Legal Affairs, Government of India as per Government of India, Ministry of Law & Justice, Department of Legal Affairs's OM No. 334774/DoLA/AMRD/2019 dated 31st March 2020, Subject: Settlement of disputes other than taxation between Government Ministries / Departments *inter se* and between Government Ministries / Departments and other Ministries / Departments / Organisation(s) – **Administrative Mechanism for Resolution of Disputes (AMRD)**. The aforesaid Government of India's OM No. 334774/DoLA/AMRD/2019 dated 31st March 2020 on Administrative Mechanism for Resolution of Disputes (AMRD) along with The Arbitration and Conciliation Act 1996 and the Arbitration and Conciliation Act 2015 shall be applicable to arbitration under this clause. The Award of arbitrator shall be binding upon the Parties to the dispute, provided, however, any party aggrieved with the decision of the Committee at the First level (tier) may prefer an appeal before the Cabinet Secretary, Government of India at the Second level (tier) within 15 days from the date of receipt of decision of the Committee at the First level, whose decision will be final and binding on all concerned as per Government of India's OM No. 334774/DoLA/AMRD/2019 dated 31st March 2020 on Administrative Mechanism for Resolution of Disputes (AMRD). Upon such reference, the dispute shall be decided by the Cabinet Secretary or the Special Secretary/Additional Secretary, when so authorized by the Cabinet Secretary, whose decision shall bind the parties finally and conclusively. The Party to the Dispute will share equally the cost of Arbitration as intimated by the Arbitrator.

### 11.2 Indemnity

Each party shall indemnify and hold harmless the other party and its trustees, officers, employees from and against any claims, actions, damages, expenses (including reasonable fees and costs), liabilities and costs arising from or relating to the services of either party under this Agreement.

### 11.3 Relationship - Principal to Principal

All dealings between Survey of India and Government of Uttarakhand shall be as Principal to Principal. This Memorandum of Understanding does not in any way create, establish or deem to imply the relationship of principal and Agent or partnership between Survey of India and Govt of Uttarakhand.

#### 11.4 Force Majeure

Neither party shall be held responsible for non-fulfilment of its respective obligations under this Memorandum of Understanding to the exigency of one or more of the force majeure events lying beyond the responsible control of affected Party, such as but not limited to, Acts of God, War, Flood, Earthquakes, Epidemics, Riots, Civil commotion etc. provided on the occurrence and cessation of any such events, the party affected thereby shall send a notice in writing to this effect to the other party immediately after, but not later than one month of such occurrence and/or cessation. The period between the occurrences and cessation of such events shall be excluded while calculating the period during which the party has to perform its obligations under this Memorandum of Understanding. If the force majeure conditions continue beyond six months, the parties shall then mutually decide about the future course of action.

#### 11.5 Governing Law and Jurisdiction

This Memorandum of Understanding has been formulated in accordance with Indian laws and shall be governed as such.



**(Chandresh Kumar)**

Chief Executive Officer / Commissioner Cum Secretary,  
Board of Revenue Uttarakhand,  
Government of Uttarakhand / State Nodal Officer  
Signed on behalf of the Governor of Uttarakhand

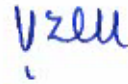
Place: Dehradun

Dated: 08-09-2023

Witnesses:-

1. Board of Revenue, Uttarakhand

2. Board of Revenue, Uttarakhand



**(Pardeep Singh)**

Deputy Surveyor General,  
Surveyor General Office,  
Survey of India, Hathibarkala,  
Department of Science & Technology  
Signed on behalf of the Government of India

Place: Dehradun

Dated: 08-09-2023

Witnesses:-

1. Survey of India

2. Survey of India

