

GIS Mapping and Digitalization of KSEBL Land Assets

Kerala State Electricity Board Limited (KSEBL), a fully state-owned public sector undertaking, is entrusted with the generation, transmission, and distribution of electricity across the state of Kerala. KSEBL currently holds approximately **5000 hectares of non-forest land** and **13,630 hectares of forest land** across the 14 districts of Kerala. These assets are utilized for various critical infrastructure purposes, including power generation, transmission, distribution, staff housing, and hydroelectric projects (including small hydroelectric projects).

Despite the strategic value of these assets, many of the land parcels lack proper documentation and management systems. This has led to challenges in effective land management, including encroachments and difficulties in monitoring and planning.

To address the existing gaps in land asset management, KSEBL intends to launch a **comprehensive digitalization and GIS mapping initiative**. This project aims to bring all land-related records and data under a unified digital platform, ensuring transparency, accuracy, and ease of access for internal stakeholders.

KSEBL invites **Expression of Interest (EOI)** from **qualified and experienced startups** in the field of **GIS mapping, land record digitization, and digital land asset management solutions**. The scope of work includes:

1 Digitization of Land Records

- Collection, scanning, indexing, and digital storage of all land-related documents.
- Verification and organization of historical and current records.
- Integration with digital land registry systems where applicable.

2 GIS Mapping and Geo-Tagging

- GIS-based mapping of all land parcels owned by KSEBL across Kerala.
- Geo-tagging of infrastructure such as substations, hydro projects, staff quarters, etc.

- Creation of interactive, layered GIS maps for visualization and management.

3 Professional Survey and Data Validation

- On-ground surveys using modern tools such as DGPS, drones, or LiDAR.
- Verification and validation of digital records with physical data.
- Boundary demarcation and integration of cadastral data.

4 Development of a Centralized Software Solution

- Design and development of a secure, scalable, and user-friendly digital platform.
- Features should include data search, visualization, asset tagging, historical record access, and administrative tools.
- Access control mechanisms for different user roles (e.g., surveyors, administrators, senior management).

Eligibility Criteria

Startups interested in this project must meet the following criteria:

- Proven experience in **GIS mapping** and **land digitization projects**.
- Demonstrated capability in developing **custom software solutions** for land management or infrastructure monitoring.
- Experience working with **government departments or public sector undertakings** is preferred.
- Adequate technical infrastructure and qualified personnel for field survey and data processing.