



**PROJECT IMPLEMENTATION UNIT (PIU)
PUNJAB URBAN LAND SYSTEMS
ENHANCEMENT (PULSE)
Punjab Land Records Authority (PLRA)
Government of the Punjab



TERMS OF REFERENCE

PUNJAB URBAN LAND SYSTEM ENHANCEMENT (PULSE)

**ISLAMIC REPUBLIC OF PAKISTAN
PUNJAB PROVINCE**

**HIRING OF CONSULTANCY SERVICES FOR
THE GEODETIC ANALYST**

SEPTEMBER 2025

Terms for Reference

1. BACKGROUD INFORMATION

Board of Revenue, Punjab with the technical & financial support of World Bank is preparing Punjab Urban Land System Enhancement (PULSE) project for the establishment of a unified central database of all types of urban properties (societies / authorities / development agencies), rights and charges. The proposed system will not merely a GIS & Parcel based one but has all possible functionalities to serve as a robust platform for creation of ‘Spatial Data Infrastructure’ (SDI), an inevitable need of the future. The project will provide a complete and transparent record of title in land and immovable property. Digitization of remaining parts of rural land, digitization of katchi abadi record, automation of sub-registrar record rooms is also part of the project.

1.1. Beneficiary Country and Province:

Islamic Republic of Pakistan and Punjab Province.

1.2. Contracting Authority:

Under the Punjab Urban Land System Enhancement (PULSE) Project and in agreement with the World Bank, the Project Implementation Unit (PIU), Punjab Land Records Authority (PLRA), Government of Punjab is the contracting authority.

2. OBEJECTIVE

One of the core objectives of the PIU is to provide the analytical services and value-added information and solutions to Punjab Land Records Authority (PLRA) in Punjab and other users such as World Bank, donor organizations etc. in a manner that broadens and strengthens the digitization of land record on PLRA and maximizes the effectiveness of the Punjab Urban Land System Enhancement (PULSE).

The Geodetic Analyst will provide support to the wider PIU-PLRA, PULSE team in geospatial and geodetic field operations that is part of the vision of Punjab Land Records Authority (PLRA).

3. SCOPE OF SERVICES

- i. To conduct geodetic surveys to assess the positional accuracy of satellite and drone imagery provided by vendors, ensuring compliance with technical standards and project requirements.
- ii. Plan and execute UAV mapping campaigns, including flight planning, data acquisition, processing, and georeferencing using ground control points.
- iii. Maintain and monitor benchmarks, control pillars, and future CORS stations to ensure long-term stability, continuity, and reliability of the reference network.
- iv. Perform computations, network adjustments, and accuracy verification to support reliable spatial data outputs for land governance and mapping activities.
- v. Provide technical assistance to district teams during field campaigns, including equipment setup, calibration, troubleshooting, and issue resolution.
- vi. Prepare documentation, technical reports, and training materials, and support the capacity building of the PULSE team in geodetic and geospatial methodologies.
- vii. Any other responsibility assigned by the supervisor.

4. DELIVERABLES

The Consultant will submit monthly progress reports about the Terms of Reference (TOR).

5. SELECTION CRITERIA

We are seeking enthusiastic and motivated individuals, to work with us on this dynamic and engaging project, who fulfill the following criteria:

Education and Qualifications

- Bachelor's or Master's (16 years of qualification) degree in Geodesy, Geomatics, Surveying, GIS, Remote Sensing, Space Science or a related field.
- Additional certification or training in GNSS, photogrammetry, or UAV mapping will be an advantage.

Experience

- At least 3 years of relevant experience in geodetic surveys, UAV mapping, or geospatial data analysis.
- Prior experience in large-scale land management, cadastral, or infrastructure projects will be considered an asset.
- Hands-on experience in GNSS/GPS surveying, including static, RTK, and network-based solutions.
- Proficiency in relevant software (e.g., Trimble Business Center, Leica Infinity, Pix4D, Agisoft Metashape, ArcGIS, QGIS).

6. TYPE OF CONTRACT

Time-Based Contract.

7. ESTIMATED DURATION OF CONTRACT

The estimated duration of the contract will be one year, extendable based on satisfactory performance.

8. SELECTION METHOD

The selection will be made in accordance with the Open Competitive Selection of Individual Consultants of World Bank Procurement Regulations for IPF Borrowers", dated November 2020. The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" dated July 2016 revised November 2017 and August 2018 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.
