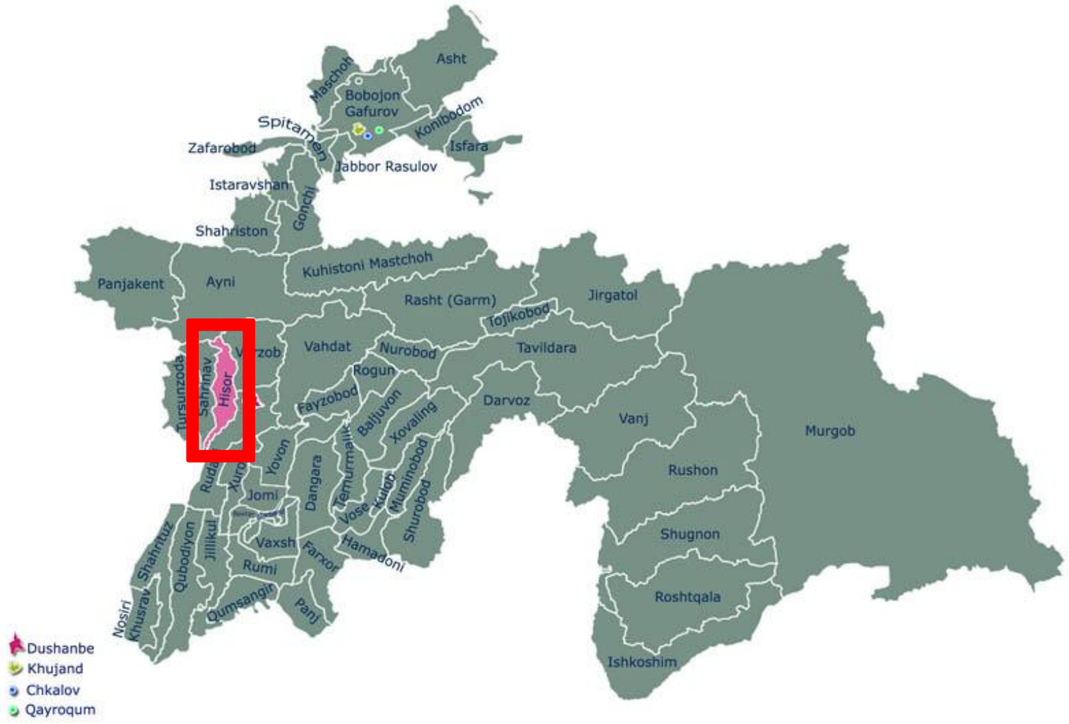
PILOT PROJECT FOR LIS & NSDI

Gisar City, Republic of Tajikistan



Presented by
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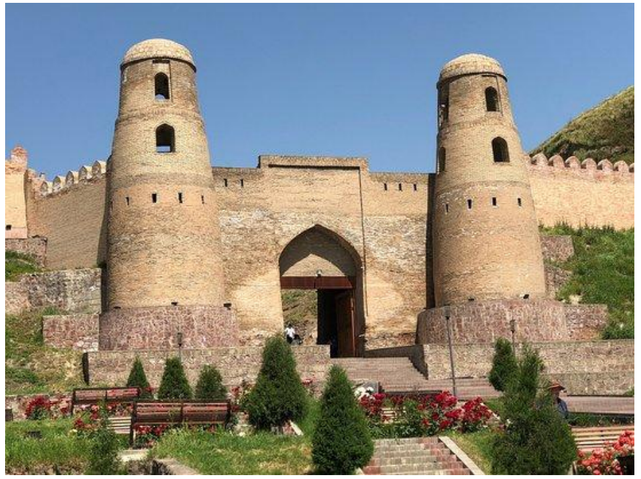
Overview of Gisar City, Tajikistan

Gisar is a city in central Tajikistan, located about 20 km west of the capital, Dushanbe.
It is a part of the Districts of Republican Subordination in Tajikistan, giving it
strategic importance in central planning and resource management.



Area & Population:

- **Total Area:** Approximately 30 square kilometers.
- **Population:** Around 60 000.
- The city is one of the largest administrative and economic centers in the region.

Economy & Land Use:

- **Primary Economic Activities:** Agriculture, small industries, and trade, which contribute significantly to the local economy.
- **Land Use:** Diverse mix of agricultural, urban, and industrial zones, making it an ideal location to pilot spatial data management and land information systems.

Challenges & Opportunities:

- **Challenges:** Issues with land management, unregulated urban growth, and limited digital infrastructure.
- **Opportunities:** Potential for sustainable land development, enhanced governance, and integration into a national spatial data framework.

Relevance for LIS & NSDI:

- Establishing a LIS & NSDI in Gisar provides a scalable model for improved land management, data sharing, and inter-departmental collaboration across Tajikistan.

Implementation strategy

Leading agency – State Unitary Enterprise Aerogeodesy of Dushanbe under The State Committee on land management and Geodesy of the Republic of Tajikistan

Coordination done by Project management team

- **Resource Allocation:** Secure and manage resources, both financial and human, to support the ongoing development and maintenance of the NSDI and LIS.
- **Risk Management:** Implement a risk management plan to identify potential risks associated with the project and develop mitigation strategies.

Survey and Mapping Infrastructure

- **Modern Survey Equipment:** Procure and deploy modern surveying tools and technologies, including GNSS and drones, to collect accurate and high-resolution geospatial data.
- **Geodetic Network:** Enhance the existing geodetic network to provide a comprehensive reference framework for all spatial data activities in Gisar.
- **Data Collection Standards:** Establish standards for data collection to ensure that all spatial data adheres to national and international quality standards.

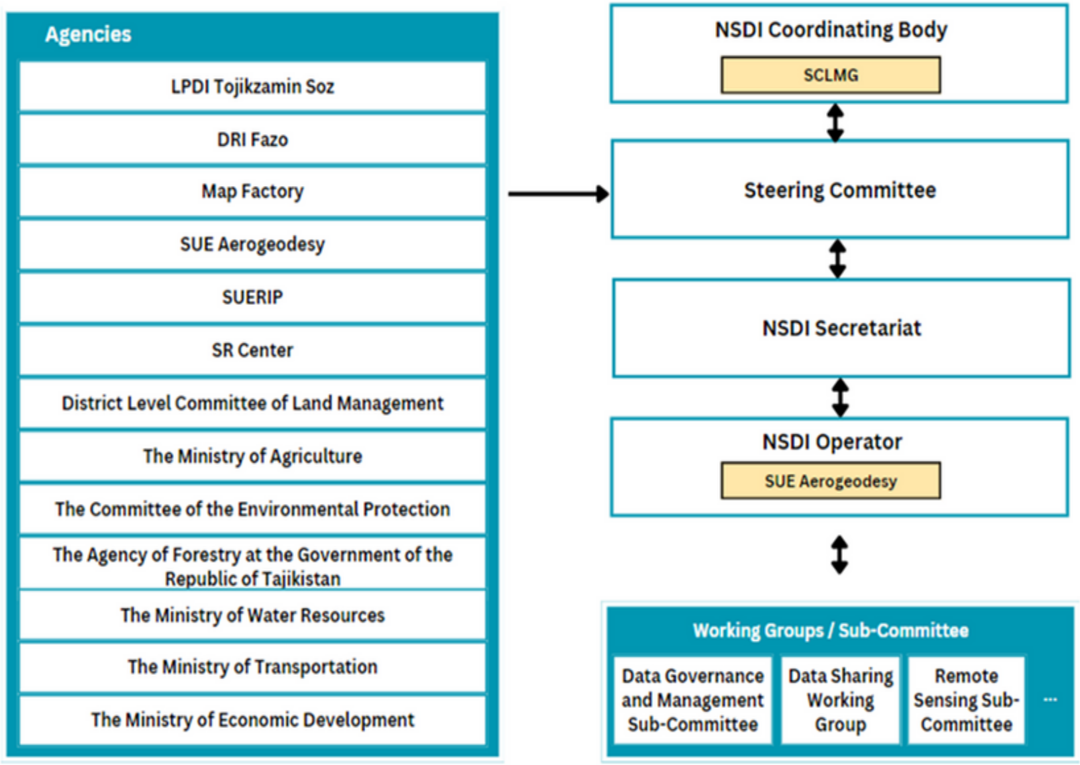
Governance

Governance Model

- The Governance Model for the Gisar City NSDI and LIS will be established to ensure effective leadership, policy guidance, and coordination of geospatial activities across various government agencies. Key components include:
- **Steering Committee:** Comprised of representatives from key ministries and the local government, responsible for strategic oversight and policy direction.
- **NSDI Coordination Unit:** A dedicated team within the city government tasked with the day-to-day management of NSDI initiatives, ensuring compliance with national standards and integration with city planning activities.
- **Legal and Policy Framework:** Develop and enforce regulations that support data sharing, data security, and privacy protections. This framework will also outline the responsibilities of different stakeholders and the operational protocols for data handling and dissemination.

Policy, Legal and Data Standards

- **Policy Development:** Formulate policies that promote the use of geospatial information in public administration and ensure sustainable development practices.
- **Legal Framework:** Establish legal provisions that facilitate the implementation of NSDI, address data privacy issues, and provide a legal basis for the operation of geospatial data systems.
- **Data Standards:** Adopt international geospatial data standards and protocols to ensure compatibility and interoperability of data sets across different platforms and agencies.



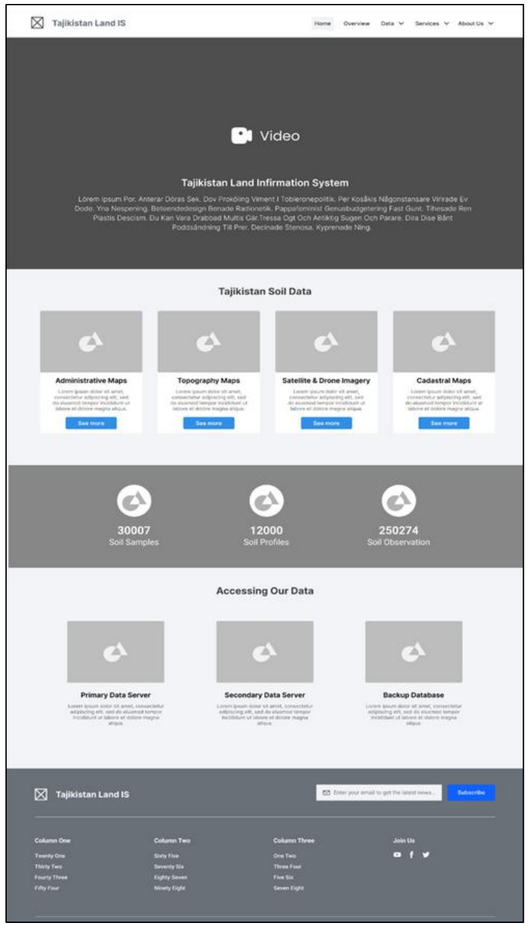
Design and Development

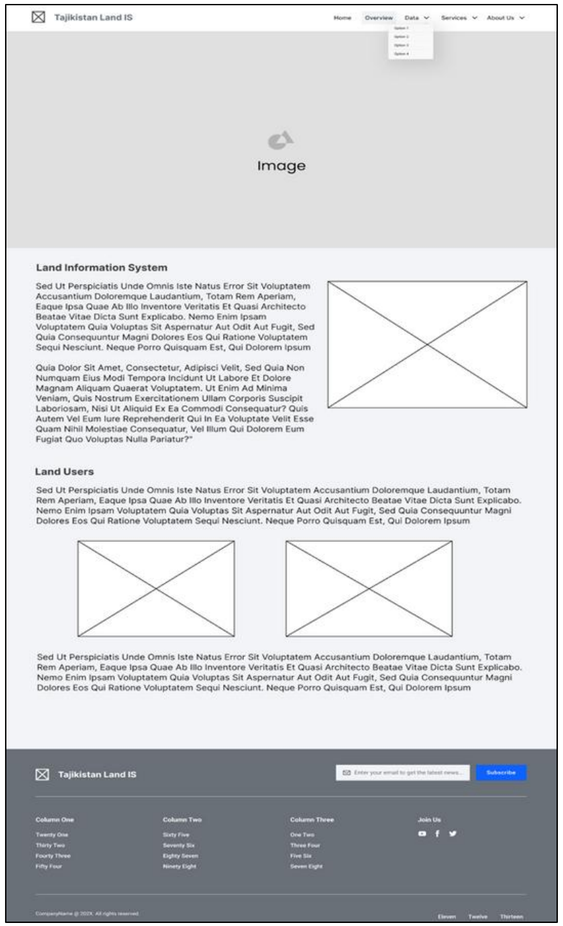
LIS including Land Digitization

- **Digitization of Land Records:** Convert all existing paper-based land records into digital formats to improve accessibility and reliability.
- **Cadastral Mapping:** Update and maintain cadastral maps to reflect current land ownership and usage accurately.
- **Integration with Public Records:** Integrate LIS with other public records systems to enhance data reliability and service delivery to the public.

Design and Development of LIS Portal

- **LIS Portal Architecture:** Develop a robust web-based portal that provides secure and scalable access to land information.
- **User-Friendly Interface:** Design the interface to be intuitive and accessible for various users, including government officials, businesses, and the general public.
- **Functionality:** Ensure that the portal includes functionalities for searching, viewing, and downloading land records and geospatial datasets.

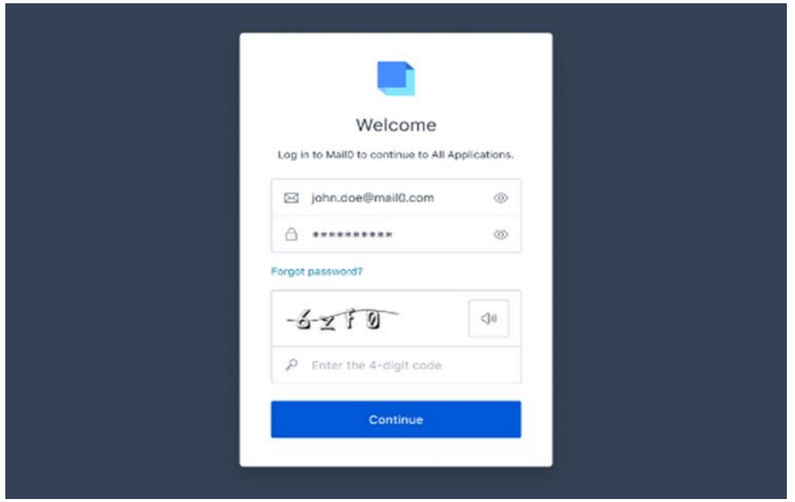




Design and Development

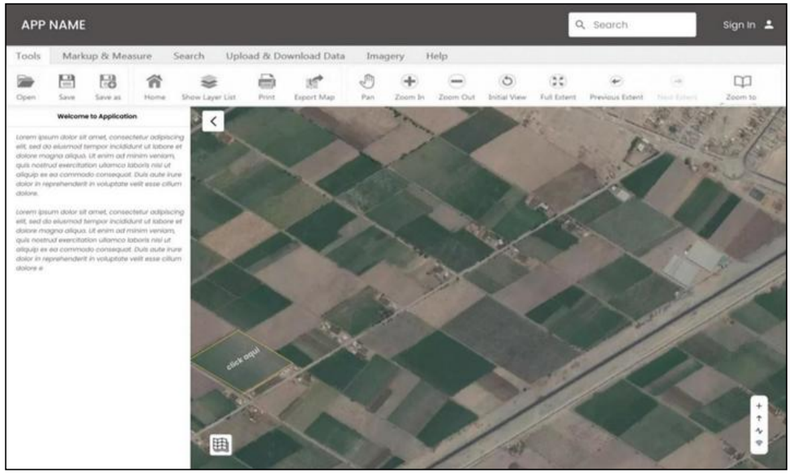
Public Facing Portal and SDI GeoPortal

- **Public Access Portal:** Develop a portal that allows the public to access non-sensitive geospatial data and information, facilitating transparency and community engagement.
- **SDI GeoPortal:** Create a comprehensive GeoPortal that serves as a central repository for all spatial data within Vahdat, providing tools for data analysis, visualization, and reporting.
- **Interoperability:** Ensure that both portals are fully interoperable with existing government IT systems and international geospatial data services.



Integration of Existing Data into the System

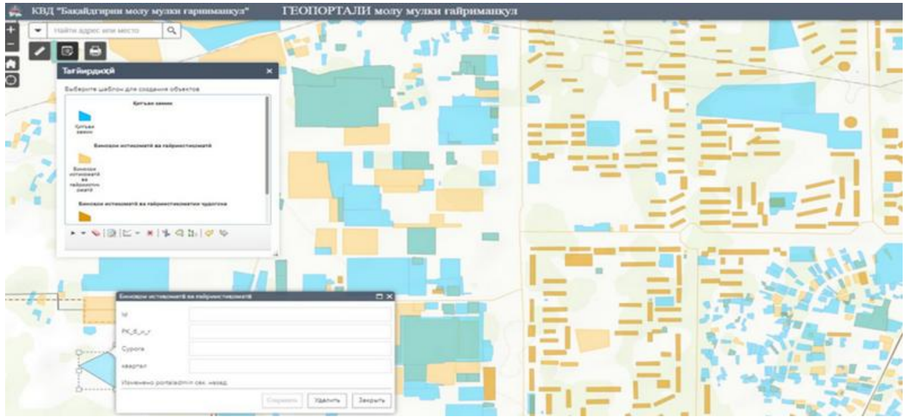
- **Data Assessment and Cataloging:** Conduct a thorough assessment of all existing geospatial and land data across various government entities. Catalog and classify data based on its relevance, accuracy, and confidentiality.
- **Data Cleaning and Standardization:** Standardize data formats, terminologies, and metadata to align with the established NSDI and LIS frameworks. Cleanse data to ensure accuracy and reliability before integration.
- **System Integration:** Seamlessly integrate cleaned and standardized data into the NSDI and LIS infrastructures. Ensure that data flows between systems are automated and secure to maintain data integrity and up-to-date information.



Design and Development

Integration of the Land Registration System (LRS)

- **LRS Data Modernization:** Modernize the existing LRS by digitizing and standardizing all land records and registration data according to NSDI guidelines.
- **Integration with LIS Portal:** Seamlessly integrate LRS functionalities into the LIS portal, providing a unified platform for accessing all land-related information, including title deeds, cadastral maps, and transaction histories.
- **Enhanced Services:** Enhance the LRS to include services such as online registration, electronic document submission, and automated record updates to improve efficiency and reduce the time required for land transactions.



Capacity Building

Capacity Building for NSDI and LIS

Key Focus Areas:

1.Modern Geodesy and Cartography: Training in GNSS, LiDAR, and drones according to international standards.

2.Data Management and Cybersecurity: Skills in managing geoportals and ensuring data protection.

3.Policy and Legal Framework: Knowledge to support data sharing and usage.

4.Project Management: Planning, coordination, and risk mitigation.

Objective:

•Building a team capable of sustainable development and support of NSDI and LIS.

Estimated Budget

S. No.	WP	Estimated Budget
1	Project Management Team	50,000
2	**Survey and Mapping Infrastructure** • Advanced Survey Methods including Survey Equipments • Drone imagery • Hosting Server	300,000
3	**Design and Development of LIS and NSDI** • Digitization of Cadastral Land Records • Topographic and Cartographic Mapping-digitization and modernization of processes and publication • Design and Develop LIS System • Public Facing Portal	500,000
4	Governance, policy and legal, data standards, Data and Capacity Building	150,000
Total Estimated Budget for 1,5 years		**1,000,000**

Thank you