

## UN-Habitat, OICT and LTO Network release first open-source urban land registry solution for the Government of Afghanistan

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A new digital land registry for urban informal settlements at the Ministry of Urban Development and Land in Afghanistan is set to address access to secure land rights, one of the key causes and results of conflict in the country.

The land registry solution will be handed to the Afghan Government in December 2020 by the UN Human Settlements Programme (UN-Habitat) the UN Office of Information and Communications Technology (OICT) and the hybrid blockchain platform LTO Network. The 'goLandRegistry' solution will contain accurate property records, handling at least one million land parcels which will be individually registered on blockchain, and occupancy certificates issued. Subsequent changes to the occupancy certificate will be possible via immutable transactions using Live Contracts. Property owners will be able to demonstrate the authenticity of the certificate independently through the Open Source blockchain verification tool.

Land management is at the centre of many of Afghanistan's urban challenges. Land-related urban challenges include land grabbing, inefficient use of land and insecure land tenure in informal settlements. More than 80 per cent of properties in Afghan cities are not registered with municipal or national land authorities, and occupants do not have formal ownership documents. Weak land management and insecure tenure severely constrain economic and social development. When land ownership and possession rights are unclear, households are reluctant to invest in dwelling improvements, local authorities do not provide services, and the private sector does not invest in industry and job creation. Since 2016, UN-Habitat has assisted 12 municipalities to survey and register more than 830,000 properties as a first step towards ensuring secure tenure for urban residents and improving the management of urban land.

In September 2019, OICT and UN-Habitat signed a Memorandum of Understanding to provide a framework of cooperation for the development of a digital land registry using emerging technology tools in support of the Government of Afghanistan's City for All programme. The two UN entities later collaborated with the LTO Network to leverage blockchain technology to support the survey, registration and documentation of properties in Afghan municipalities. The collaboration was undertaken under the Kabul Strengthening Municipal Nahias Programme (KSMNP) funded by USAID.

**Victor Kisob, Deputy Executive Director, UN-Habitat:** *"Land is central to ending poverty and inequality, to enhance access to food security, to provide basic services, to foster peace and stability, and to reduce land degradation in rural and urban areas. UN-Habitat is supporting member states to build and strengthen systems to fast track progress towards Sustainable Development Goals 1, 5 and 11, and to generate data for monitoring progress, reporting, as well as for effective and evidence-based policy formulation and decision making. Efficient and accessible land registries are key for this process. The collaboration between UN-Habitat, OICT and LTO will promote the use of modern technology and an integrated approach to data generation for this purpose."*

**Maurizio Gazzola, Chief Strategic Solutions, OICT:** *“OICT has collaborated with UN-Habitat, the Government of Afghanistan and the LTO Network to build a software solution that can effectively support Afghanistan’s digitization of government administration services to improve the quality of life for its citizens. The plug-and-play design of the LTO Network’s blockchain and the contribution of transaction tokens for the Afghanistan project enabled the development of the blockchain anchoring mechanisms and the Open Source certificate of ownership verification tool that is now available to any country to utilize as a blockchain add-on to their existing land registry systems.”*

**Rick Schmitz, CEO, LTO Network:** *“We’re proud to facilitate land registry operations for countries around the world through the open source boiler plate that we intensively developed for the past year in collaboration with UN-Habitat and OICT teams. We believe the future for land registries lies with hybrid blockchain solutions that allow for optimized and decentralized data exchange between stakeholders in the land registry process without the need for expensive IT-overhauls, simply by linking Application Programming Interfaces (APIs). By using Live Contracts, data can be automatically distributed to different stakeholders and systems to facilitate land-registry transfers, tax automations, provision of credit, etc, making them unprecedentedly efficient.”*

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