

## **LRA's GEO-SPATIAL SYSTEMS AND DATABASES**

In the Philippines, the Land Registration Authority (LRA), an attached agency of the Department of Justice, is the only central repository of records relative to original registration of lands titled under the Philippine Torrens system, as well as the public repository of records of instruments affecting registered and unregistered lands and chattel mortgages.

Registration of deeds and instruments affecting real and personal properties are done through the different Registries of Deeds nationwide. A Registry of Deeds is required by law to be established in each Province and City of the country.

The Philippines has, for recent years, engaged in projects and implemented infrastructure to cope up with the developing countries, and at the same time, contribute to the nation's capacity building. Certain projects are being undertaken by the government in active partnership with the private sector that has also played a major role in the country's development since the enactment of a law, particularly Republic Act 6957, as amended by Republic Act 7718, otherwise known as the "Philippine BOT Law."

The above-stated law has paved the way for encouraging investors to undertake projects in the country and are given a reasonable rate of return for such investment.

LRA is implementing the Land Titling Computerization Project (LTCP), under the above-stated law. The LTCP involves, among others, conversion of almost 25 million certificates of title and 10 million pages of documents into digital form, the development of a customized enterprise-level workflow-based application systems, training of end users, nationwide network interconnection of the Central Office and its 164 Registries of Deeds nationwide, construction of IT-enabled government offices, and supply of IT products and services. This project is financed, constructed, and operated and maintained exclusively pursuant to a Build-Own-Operate ("BOO") Agreement between LRA and the private proponent.

The LTCP is substantially-completed as of date, with more than 98% of transactions being processed using the LRA's Computerized Systems.

One component delivered as part of the LTCP is the Geographic Information System (GIS) and a map database derived from the technical description of the Certificates of Title (Parcel Map Database). The GIS and the Parcel Map Database are powerful tools that can be used to identify the location of properties and the identification of properties falling within specified

parameters and areas of interest.

Initially, LRA was using the GIS and the Parcel Map Database for reviewing Administrative Patents, Land Ownership Awards, and Subdivision and Consolidation Plans, which are generated and approved by other Government Agencies, but are brought to LRA's RDs for registration and title issuance. These technologies were used to ensure that defective technical descriptions are identified (e.g., incorrect area, incorrect relative position, overlapping parcels, etc.).

### Geo-spatial Services for Other Government Agencies

At the request of the Office of the President, LRA was tapped to assist several government agencies in identifying titled properties falling within defined buffer zones of key waterways in Metro Manila. LRA was able to use LTCP Systems and Databases to consolidate and integrate the different maps and data sets from the involved government agencies.

Considering the magnitude of the titled property database of LRA, and that these have already been scanned and encoded, queries are processed within a very short period, unlike the traditional manner of doing ownership research which takes years as compared to weeks using the LRA Geo-spatial Services.

LRA has since then started providing Geo-spatial Services to other Government Agencies, as follows:

Local Government Taxation - several Provinces, Municipalities, and Cities have acquired LRA's database of all titled properties in their respective jurisdiction. LRA delivered parcel map databases based on the encoded technical description of the land titles. The Local Government Units will use this database to migrate and update their existing real property tax maps, to ensure the accuracy of their records, and an increase in their tax collection efficiency.

Agrarian Reform - LRA is supporting the country's Agrarian Reform Program by providing Geo-spatial Services in ensuring that the lands targeted for coverage are within areas/domains classified as alienable and disposable. LRA also provides Registration Services once the Notices of Coverage and the Land Ownership Awards are brought for registration.

Asset Identification - LRA provides support to water utility companies in identifying titled properties falling within the area of interest so specified.

Rivers and Waterways - LRA provides support to the Government's river and waterways rehabilitation effort by identifying titled properties and the land covered, which fall within the corridor of the alignment of interest specified.

Dams and Irrigation - LRA provides support to the Government's irrigation expansion program by identifying titled properties and the land covered, which fall within the area and/or corridor of the area and/or alignment of interest specified.

Electrical Power Transmission - LRA provides support to the Government's acquisition of right-of-way for transmission lines and transmission towers by identifying titled properties and the land covered, which fall within the corridor of the alignment of interest specified.

Roads and Railways - LRA provides support to the Government's acquisition of right-of-way for roads, railways, and bridges by identifying titled properties and the land covered, which fall within the corridor of the alignment of interest specified.

With LRA's Systems and Databases, the identification of the correct land owner is faster and reduces the risk of Government Agencies dealing with the wrong parties, in case of acquisition and settlement.

LRA is also studying how its Databases can be used for more accurate land valuation.