EGYPT'S PARCEL-BASED DEEDS REGISTRY

Spurring on the Mortgage Market

Egypt has embarked on an ambitious plan to stimulate financial markets and create its first ever mortgage industry by freeing up the billions of dollars trapped in unregistered property. The centrepiece of this progressive economic programme is development in Cairo of a parcel-based deeds registration system that dramatically eases the way for the lower and middle classes to have their land ownership rights recorded and recognised by government, private-sector organisations and other citizens. ?<P>

Land ownership registration may at first glance seem an unlikely way to jumpstart economic activity, but it is in fact a crucial starting point for emerging urban markets around the world. As first described in his ground-breaking bookThe Mystery of Capital, Peruvian economist Hernando de Soto has observed that low-income people all over the world often have just one asset: the property they own or occupy. Unfortunately, this represents an untapped resource in many urban areas because such holders usually lack any officially recognised right to own or occupy. In addition, many formal systems fail to recognise informal or traditional forms of land tenure. Without a registered deed, title or lease, the owner cannot use the land as collateral and take out a loan to improve the property or start a business. Untitled land forms a major impediment to economic development in an emerging market.

Owner Confidence

Recent studies indicate that the benefits of formally recognised land ownership and occupancy extend beyond the economics of loans and mortgages. People with land titles or deeds, or even para-legal entitlement, enjoy a greater sense of security, less fear of eviction or confiscation of their home and/or land. This gives them the confidence to enhance the property, send their children to school and demand basic government services. Formal recognition of ownership rights makes it easier for the government to extend health care, education and utilities. While the benefits of land registration are many, disincentives are often high. In many parts of the world the poor don't trust land registries or formal government, fearing these systems will lead only to taxation. Another common drawback is the formal registration process itself, which is often complex and expensive for all but a wealthy landowner to attempt to navigate.

Paper Archive

Only 5% of the roughly three million real-estate properties in Cairo are registered in the existing paper-based deeds system, which itself dates back to 1900. The land registration process takes an average of 193 days to complete and involves many complex steps. Fortunately, the Egyptian government recognises the long-term economic benefits of bringing the other 95% of Cairo's private properties into the formal system. Encouraged by an ascendant middle class keen to take advantage of mortgages, Egypt is streamlining the process and replacing the manual registry index in Cairo with a parcel-based deeds registration system developed using automated software and linked to a digital cadastre employing advanced GIS and mapping technology. Egypt has also recently dropped registration fees to a low, flat fee, and has seen revenue increase fourfold with volume, dispelling fears of lost revenue were the fees lowered.

GIS-tied Government

In November 2004 the US Agency for International Development (USAID) provided the funds to initiate the Egypt Financial Services (EFS) programme, a four-task project designed to stimulate financial markets. EFS Task 2 identified modernisation of the property registry in Cairo, and Egyptian government counterparts are the Real Estate Publicity Department (REPD) of the Ministry of Justice and the Egyptian Survey Authority (ESA) under the Ministry of Water Resources and Irrigation. REPD is managing the existing deeds recording process, while ESA is responsible for official mapping and cadastral work. Egypt and USAID awardedthe prime contract to Chemonics International of Washington DC and its two principal Task 2 sub-contractors, International Land Systems (ILS) of Silver Spring, Md. and ESRI North East Africa (ENEA) of Cairo. One district in Cairo, comprising about 100,000 properties, was chosen for initial implementation of the parcel-based deeds system. ILS is implementing this using its Land Registry System (LRS), an off-the-shelf suite of applications created specifically for implementing modern real-property title registration. LRS automates the entire registration workflow, from document intake and cashiering to scanning, indexing, reporting and query. Importantly for a countrylike Egypt, the LRS land-registry software can be configured for local laws, language and documents, and may be integrated with spatial data from the cadastral data-management system (CDMS, figure 2). In the case of Egypt, both LRS and CDMS will be using the IBM DB2 database platform. Egypt understood the value of linking the deeds-registry with a digital cadastral map. All government offices involved in land management, such as real-estate registration, taxation, planning and zoning, can tie into the same GIS and share information at individual parcel level.

Data Management System

The task of developing the ArcGIS server-based CDMS is being handled by ENEA. The parcel index map serves as the base layer of the CDMS and is now being populated with the location and geometry of each parcel and building footprint. CDMS also identifies each property with a unique property identification number. There was previously no parcel ID to link property details to a map, but now that the

two systems are digitally integrated there will be electronic exchange of information between ESA and REPD. This will streamline the registration process for government personnel, but will also minimise the number of visits applicants need make for filling in their application. Conversion of ownership records is being performed using an LRS plug-in developed specifically for transposing paper records foundin land registries. This allows personnel to create a semi-automated environment in which important pieces of information, such as owner name and property address, can be quickly found and extracted from the paper documents being scanned. The critical point of this phase was to create the unique parcel ID linking the data in the two databases.

Geodatabase Population
Populating the geospatial database in the CDMS was a complicated endeavour thanks to variation in the types of maps available. Both paper and digital maps of many neighbourhoods were either scanned or imported into the cadastral layer. Local taxation and planning offices offered maps describing parcel geometry and location. Building footprints were digitised from aerial photography or scanned from construction plans supplied by property developers. There were many properties that had never been mapped, and GPS mapping crews were employed to fill in the gaps. Locally employed field teams were also used to verify relational accuracy between parcels. Because so many map sources were used, the parcel and building footprint vectors had to be georeferenced to a common geodetic network, the New Egyptian Datum (NED-95). After internal quality control checks, these cadastral files were sent to ESA for review and approval.

Deeds Registration
The official opening of the new REPD District Registry Office took place in Cairo in November 2008, after 'soft opening' on 8thSeptember. A total of 25 workstations have been set up for personnel to use in serving residents who visit the office in person. Extensive training in land-registration practices, and information technology, is now in place for staff, many having had little prior experience with automated systems (Figure 3). Another fifteen workstations have been set up in the ESA Provincial Office for updating and management of cadastral files in the CDMS, and high-speed communication lines link the two offices. In a typical transaction, an REPD intake clerk will accept the necessary information from a landowner and input it to the LRS parcel-deeds registration system, which then forwards it to a registry clerk, who reviews it to ensure all data has been entered. Working in the system, a clerk may use the LRS ArcView extension to access the CDMS and view the parcel map and other legal documents relating to the property. This ILS extension will also be available to the public on a computer in the district office. An analysis of business processes revealed that a major bottleneck occurred as a result of landowners lacking easy access to parcel descriptions defining their property. They will soon be able to obtain this information themselves using one of the REPD terminals.

Approval Process
As the automated registration system puts the digital-deeds application through the approval process at REPD it sends an electronic notification to the ESA Provincial Office if and when the transaction requires a change to the parcel itself. Any alteration, such as division of a property, will have to be approved and entered in the CDMS by an ESA official. In many cases this may generate a work order to perform a new field survey of the site. Once the new survey information has been input to the CDMS, the registration system will be able to access and include it in the transaction document package. Any changes made to the deed or map information, whether entered by REPD or ESA personnel, will be permanently linked by the system using the parcel ID number. The LRS registration software will ensure synchrony of deeds and geospatial databases. Participants estimate that when the systems are fully operational and staff comfortable in their new roles, the process required for recording most real-estate transactions will take only about thirty days and require the applicant to pay a flat fee. Once the registration has been approved and paid, the official deed will be printed directly from the system and handed to the landowner.

And Now For Education
In preparation for the new Cairo registry, project participants are embarking on an educational campaign aimed at raising public awareness of the personal and national benefits to be derived from registering real-estate holdings with the government. As the Egyptian people begin to take out mortgages and leverage equity in their property, capital should flow into the local market. Private land ownership plays a vital role in the stability of the social system in Egypt. The government believes that the circulation of real-estate investment will result in the promotion of financial markets and a prospering Egyptian national economy.

Further Reading
De Soto, Harnando;The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else; Basic Books (2000).

Acknowledgements

Peter Rabley, President, International Land Systems Inc, 8401 Colesville Rd. #630, Silver Spring, MD 20910-3349, email: prabley@landsystems.com