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## PRINCIPLES AND PRACTICE OF LAND MANAGEMENT AND ADMINISTRATION IN AKWA IBOM STATE

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### SUMMARY

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Land is required for various uses in both the urban and rural areas of all society. It is a major factor of production and a vital element in the socio-economic development of any country or society. Thus, as nations grew in size and rural areas become urban centres and urban centres become large metropolitan areas, there is always increased competition as well as demand for land for different purposes. This requires adequate planning and control to ensure harmonious development and functional efficiency of these uses and settlements. This paper examines the current land information management/administration in Akwa Ibom State. The existing cadastral systems and their shortcomings have been presented. Also recommendations on steps to take in order to improve upon the present system are discussed.

**Key words:** Land information management, Certificate of Occupancy, geographic information systems,

### INTRODUCTION

The cadastral system is the basis used for the protection of the property by means of title registration and cadastral plans. Each parcel and its owners are registered and all the spatial structures consisting of location, boundaries and contents are described in a cadastral map. Therefore, the cadastral system is seen as a land information system affording information on real estate of a property. It improves the land management whether in urban or rural areas. In urban area, it is becoming a fundamental framework for planning, assessment and collection of rates and taxes. In rural areas, the claim to ownership increases the investment in agricultural lands and the property business. Land is required for various uses in both the urban and rural areas of all society. It is a major factor of production and a vital element in the socio-economic development of any country or society (FMH&UD, 2006). Thus, as nations grew in size and rural areas become urban centres and urban centres become large metropolitan areas, there is always increased competition as well as demand for land for different purposes. This requires adequate planning and control to ensure harmonious development and functional efficiency of these uses and settlements. To achieve this fundamental and acceptable activity, layouts of various land uses such as residential, commercial. Industrial, open spaces and recreation, circulation and institutional uses among others are undertaken to standardize and control physical developments and ensure harmonious growth. Land information management is an integral part of urban development and urban management. Land revenue is the main source of income for state governments. It may come from land holdings by private individuals, real estate transactions or other natural resource being tapped by various sections of the society. The current land management practice/administration in Akwa Ibom State is hereby been examined. The existing cadastral systems and their shortcomings have been presented. Also recommendations on steps to take in order to improve upon the present system are discussed.

## **STATUS OF THE AKWA IBOM STATE CADASTRAL SYSTEM**

The Akwa Ibom State Government have their own system of collection, depiction and maintenance of land information. Over 60% of Land ownership in Akwa Ibom state still remains informal. Cadastral records form the input to assess land revenue and general land administration. The land use information is not updated from time to time. This leads to under valuation of the holdings leading to loss in revenue during transactions. In Akwa Ibom State, the land administration is managed by using hard copy revenue data either in the form of maps and descriptive documents. These have been prepared decades ago (i.e. the then Eastern Nigeria and former Cross River State) and not updated. They have the following drawbacks:-

- (a) The records are in a mutilated condition.
- (b) They are not on uniform or standardized scale.
- (c) The procedure adopted during data collection did not ensure that the inconsistencies are detected and minimized to keep it within tolerance.
- (d) They are not on a national framework. Hence integration to smaller scales and analysis on national basis is not possible, within acceptable limits of discrepancies.
- (e) The land use information is not made known by the owners from time to time or as and when the land use gets changed, which is binding as per the law.
- (f) The land use has changed over the years and records are not updated with the change.
- (g) In some cases the records are not even available.

## **REVIEW OF LAND REGISTRATION SYSTEMS**

As populations gradually grew in most societies, land became an increasingly scarce resource and various types of rights to use the land developed. Traditionally, land transfers became a legally binding agreement upon the delivery of the transfer price or an oral agreement. However, it became increasingly necessary to develop systems which would clarify ownerships and minimize disputes. The three major land registration systems which developed are the deeds registration system, the title registration system and the private conveyance system. In the deeds registration system, the transfer document (the deed) itself is registered. The deed does not prove the ownership and the chain of ownership has to be traced back either by lawyers or the land registration authority. In the title registration system the certificate itself is the proof of ownership. This system was developed in the United Kingdom and exists in many Anglo-Saxon countries and countries with such influence. In many countries with this system, the land registration system is not complete either because it is not compulsory to register transfers or because it is only necessary to register when land is sold or subject to long lease (e.g. Nigeria). The advantage is that there are two certificates to each parcel and the original is kept at the land registry. An ownership transfer is merely endorsed on the back of both the original and duplicate. The private conveyance system is the most common system in developing countries. It is based on the system to register deeds. However, only about 10 to 20 per cent of transactions are registered for example in Bangladesh and Pakistan with the remaining transactions conveyed either formally or informally with or without a person of legal training involved (Farvacque and McAuslan, 1992).

The process of registering deeds is often very time-consuming in developing countries. In West Java, land transfers take an average of 32.5 months for title issuance (Struyk, Hoffman and Katsura, 1990). The importance of a functioning land registration system in developing countries have been described by Doebele (1985).

A land registration system based on parcels could lead to a more advanced land information system. Problems which governments are facing in developing countries can be divided into four categories: institutional, technical, economical and lack of motivation. The institutional problems include shortage of skilled staff and lack of inter-organizational and interdepartmental coordination. Technical problems include the inefficiency and inflexibility of the existing system and the high standards regulated for surveys. Financial problems are incurred through high costs for subsidizing the system. It has been proven in many countries that the costs for improving the registration system can be recovered within a very short time span with revenues from land transfers (for example Thailand) and/or property taxes (Farvacque and McAuslan, 1992).

### **LAND OWNERSHIP FORMALIZATION IN AKWA IBOM STATE**

The documentation of data and information about land often begins with the formalization of land ownership through some form of land registration. This is often preceded by land adjudication and cadastral survey. The various stages of the formalization include:

- Geometric description of the boundary by the surveyor – survey plans
- Registration and Processing of certificates of deposits, certificates of occupancy in the office of the state surveyor general.
- Registering of interest and title in the state ministry of lands i.e. state land registry Refer to Akwa Ibom state laws backing the establishment of Akwa Ibom state land registry and processes of registration.
- Examination of interest by state land use and allocation committee to ensure Government interest is protected and no conflicts exists between individual interest and existing land-use patterns.
- Urban and town planning section.

### **REGISTRY PRACTICE**

In the early days of the enactment of the Land Use Act, the general reaction of the populace was that Certificate of Occupancy (C of O) is the only document acceptable as the instrument of title in relation to land. Pursuant to this erroneous belief, not a few persons whose titles were evidenced by deed rushed to process and indeed obtained a C of O to evidence their title in respect of various parcels of land which ownership is vested in them. By the Land Registry practice, the C of O is registered in a separate and distinct register different from the register of deeds. Furthermore, upon the issuance of C of O, the applicant is also allowed to retain the deed evidencing his/her title to the land. Importantly, the two registers i.e register of deeds and the register for the C of O each had no reference to the other. The implication is that such title holder is armed with two different legitimate instruments. If he is a fraudulent person, he may have two dealings on the same parcel of land with two different persons thereby creating competing interests in respect of the same parcel of land. Much as the ambition of the Registration of

Titles Law is security of title by the theory of indefeasibility, several decisions of our courts have made this laudable vision a mirage. From time to time and severally it would be observed that newspapers are daily inundated with public notices by persons, and particularly legal practitioners, advising the general public by way of caution not to deal in a particular property for either being a subject matter of a pending suit in court or that a particular person or family is the legal and legitimate title holder or that title is not vested in a particular person or family purporting or touting itself to be vested with title. In the same vein, it is common place to see several inscriptions on property both in high density and high brow areas within the States warning the public thus: "Beware this property is not for sale." The above unconventional approach may partly be traceable to some of the failings in existing legislations relating to registration. This is particularly due to the fact that the use and entry of caution is only limited to property within the areas where the Registration of Titles Law is made applicable.

### **LAND INFORMATION MANAGEMENT AND DECISION MAKING- THE AKWA IBOM STATE SCENARIO**

A review of the Land information management (LIM) systems in Akwa Ibom state indicates that land management decision makers in general are not presently obtaining sufficient information from these systems to make informed decisions. This is largely because:

- There is no documentary evidence of title for up to 80% of the parcels in Akwa Ibom state, with an estimate that less than 10% of the state is covered by any kind of detailed cadastral survey.
- Akwa Ibom State does not have a land information management (LIM) system using Land information system (LIS) and GIS as a management tool. These systems are still at the proposal stage and are yet to be implemented.
- Cumbersome, lengthy, time-consuming legal and administrative procedures e.g. processing for certificate of occupancy and lengthy approval processes and bureaucratic delays.
- Cadastral records are generally in manual form (i.e. hard copies) and are incomplete. No alternative source of comprehensive information for land management has been developed.
- The process of land registration takes an average of 15 to 18 months, and that a period of 2 to 7 years is common for certificate of occupancy. This lengthy and costly procedure means that tens of thousands of land titles are pending.
- The record system is centralized, which means that district and local decision makers have virtually no access to information held on the cadastral system. This has an impact on the sustainability of land management decisions. Available information relates only to the metropolis or rural areas where formal legal procedures were used for planning. Yet most decisions need to be made about the non-formal, customary parts of the state, which are not covered by the cadastre.
- Many of the parcels in the cadastral systems are in hard copy form, stored in archives, it is cloudy and information on them is Ambiguous.
- There is a great shortage of urban mapping. The last mapping in Akwa Ibom state was done in 2000.

- Accessibility to existing available land records because there is no networking amongst various government organizations in charge of management of land records.

**Other significant problems of the existing cadastres are:**

- Storing cadastral unit attributes and map data in different systems,
- Low precision of geometric data,
- the hardness of the analog form of cadastral surveying with paper,
- the slowness of updating, retrieval and storage process in the conventional system,
- the disability for performing analysis and report in an easy way,

**RECOMMENDATIONS TO THE STATE GOVERNMENT**

The Akwa Ibom state government should adopt different type of actions in dealing with the problem as follows:-

**(a) Microfilming:-**

The state government should embark on the task of microfilming the cadastral documents for preservation. Microfilming serves as a storage medium, in a computerized environment, without any scope for editing and query.

**(b) Scanning The Record/ Documents:-**

The state governments should scan and keep the available records in computers. Print out is taken from the scanned documents to meet the user needs. This also is being thought as a computerized method of handling land records. However, it must be realized that scanning the records will not achieve automation and it can be only used as a method of storing the documents. However, this is better than microfilming, as raster data permits overlay of other spatial data using some GIS software.

**(c) Digitization Of Documents/ Cadastral Maps:-**

The State Government will have to digitize existing cadastral maps/ records for use in the GIS platform for retrieval. This method, though the best out of the above efforts, cannot be used for effective land information management as the inherent errors in the documents leading to inconsistency have not been removed.

**(d) Setting up a Digital Multi-purpose Cadastre**

The principal element of any modern cadastre is the digital cadastral map, for it's a large view of a geographic area and it can be displayed and printed at different scales. Its major advantage is to display the spatial relationships between land objects. It is obviously organized into layers or themes giving information about properties, buildings, land use and population. On the other hand it must be a tool to describe the location, the shape and the contents of each object. A digital cadastral mapping system should have the following components:

- Reference to a geodetic control network
- Current base map layer (ideally, photogrammetrically derived)
- A cadastral layer delineating all real property parcels
- Vertical aerial photographs and/or images (ideally, orthorectified)

- A unique parcel identifier assigned to each parcel
- A means to tie spatial data to attribute data (ownership and parcel characteristic files)
- Additional layers of interest to the assessor, such as municipal boundaries, zoning, soil types, and flood plains (IAAO, 2004)

**(e) Capacity Building for Automated Land Information Systems in Akwa Ibom State**

The need for GIS or automated land information systems in Nigeria and in the rest of Africa can not be overemphasized. There are already leading examples of geographic information systems in Nigeria like the Abuja Geographic Information Systems (AGIS) and the current efforts at automation in Accra – Ghana. The question of sustainability must however be addressed. At this time in our national development, the following four sectors academia; the public sector; private sector; and corporate sector would need to have an extensive audit done to ascertain their capacity building needs within the context of ICT. The results of such an audit should form the basis for the development of capacity building programmes designed for the land sector. Using Nigeria as a case study, the level of ICT awareness in the land management profession to date is minimal (Kakulu, 2003). Capacity building through training and the provision of necessary infrastructure should occur simultaneously with efforts in this process. In addition, such capacity building should be accelerated to the point where the end users in various state and local government lands divisions and departments can be part of the systems analysis phases in the development of their systems. This would provide the missing gap in any proposed automation system and guide the product manufacturers in their development of workable GIS and other software programs for use. The paper expresses concern that if an automated system is developed and put in place without sufficient inputs by the recipients and end-users of the finished product, its implementation and use in the future is likely to fail.

**AREAS OF IMPROVEMENT**

- Faster progress in the formalization of land tenure where this is yet to be done.
- A greater commitment by the government to the adoption and maintenance of information technology solutions to land information management problems e.g. by computerizing land records, setting up shareable databases, etc. However, it must be pointed out that merely computerizing existing inefficient paper based systems will not by itself improve effectiveness; these manual systems need to be better designed before computerization.
- Reduced bureaucratic red tape to the access and exchange of land information.
- Greater cooperation amongst the different landed professions with the long-term objective of creating a stronger integrated surveying profession.

A good start could be an integrated approach to the training of surveyors, so that the new surveying graduate will be sufficiently broad based as to be able to perform most of the functions of the present landed professionals. A curriculum for such training has been proposed by Aduol et al (1995).

## NEED FOR NATIONAL CONNECTIVITY

Cadastral records need to be corrected for creation of a scientifically designed Land Information Management System. Hence it is necessary that the records are created afresh, by actual survey on the ground. During the process, most modern methods of survey should be adopted so that the errors in the records due to inconsistent methodology are removed. While doing so, if the national connectivity can be achieved, it will be easy for integration of the data and analysis on a national scenario.

## SUGGESTED PROCEDURE

To achieve the above goals two approaches are suggested:-

### (a) Ground Method:

i) **Creation of Framework and National Connectivity:-** This can be achieved by using Global Positioning System for establishing control at a density of at least 2 points per village. The control data may be with reference to the Nigerian Transverse Mercator system (NTM) Or Universal Transverse Mercator system (UTM) in WGS 84 system.

ii) **Establishing control for each village boundary:-** Each village boundary will be identified on ground and controlled by using EDM/ Total Station/ GPS using the two control points established for each village. These traverse stations will be used as reference points for further densification of control within the village for use during detail survey.

iii) **Creation of Grids for densification of control for detail survey:-** The village boundary traverse and control points will be used for establishing grid at 200m apart in the village which will be used for detail survey of each holdings within the village.

iv) **Detail Survey of Cadastral information and topographical information:-**

The detail survey of each land holding will be done using Total station instrument automatically recording the data which later is down loaded to computer for taking plot output using suitable software. Before starting the survey, the surveyor should prepare a sketch of each grid indicating the plot corners and details to be surveyed. This will ensure that information is not omitted while surveying.

v) **Collection of other information required for land management:-** A suitable data base form should be devised to collect and record the land information and demographic information which will help assessment of economical state of families or each plot owner. Information should be collected for each plot and ownership on a well designed format, with a key field which can be used as link between different thematic information for that ownership. This Key Field will help, query and analysis. Certain information regarding water source and soil classification can be obtained from the respective organization and incorporated in the data base.

vi) **Analysis and output:-** The collected information on control, topography and cadastral details can be processed in the computer using suitable software for getting plot, grid and village map outputs. Other data collected will help in assessment of tax and economical status of the families. Land use information collected will help analysis from local level to national level.

vii) **Integration of Topographical maps on small scale from large scale data:-** During the cadastral survey the information on topography is also collected. This also will be in the computer. Hence, by a suitable generalization technique, the integration of

topographical maps on small scale may be done so that the data on cadastral records and topographical maps will be compatible.

**(b) Digital Photogrammetry combined with ground method :**

Large scale aerial photography on 1:10,000 scale can give plan accuracies up to 15 to 20cm by adopting digital photogrammetry technique. In this, Plan and Height control required for digital photogrammetry will be provided by GPS. The photographs can be orthorectified and used as hard copy paper maps or soft copy in palm tops and information from field can be incorporated. Wherever further collection of information is necessary because of tree cover or forest, total station can be used to obtain the coordinates and incorporated. This method will speed up the data collection compared with the total station method of data collection as explained in (a) above. Orthorectified aerial photo can easily derive the surface area without any additional work. Aerial photo will also provide a true representation of the ground information at the time of photography. Such level of accuracy cannot be achieved even by using the high resolution satellite imagery like IKONOS or QUICK BIRD.

**CONCLUSION**

This paper has highlighted the status quo of land information management practice in Akwa Ibom state and pointed out that the present practice could be greatly improved upon from various applications of Information Technology. The status of the Akwa Ibom state cadastral system is also mentioned. It has been recommended that ground methods and photogrammetric methods be used to facilitate national connectivity plus an integrated approach to training in and practice of surveying. Faster progress in the formalization of land tenure and ownership and reduced bureaucratic red tape to the access and exchange of land information are necessary areas of improvement for the state Government.

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