RECONCILING CADAstral RECORDS IN A DUAL LAND REGISTRATION SYSTEM IN GHANA

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ABSTRACT
Soon after gaining independence, the Ghana government adopted a deed registration system for recording land ownership. A legislative instrument supported this decision. The deficiencies of the deed registration system resulted in innumerable cases of land ownership disputes. Juxtaposed with the official registration system is the customary land tenure system, which authorized custodians of the stool lands to allocate parcels through the customary process. Because the customary system did not mandate documentary evidence of the transaction, the allocation process created situations where the same parcel of land was allocated to multiple owners. The weaknesses in the two systems engendered lucrative, illegal and unrecorded land market activities. With increasing population and associated competing interests in available land, it became imperative for the government to review the existing legislation for recording and maintaining records of land parcel ownership. A new legislation was promulgated, based on a land title registration system. While efforts are being made to improve the customary land allocation process, the new legislation seeks to remove the deficiencies in the deed registration system. The introduction of the title registration system has resulted in a duality of the record keeping process. Efforts are currently under way to remove the inconsistencies in the deed records and to reconcile them with those that have been obtained through the title registration system. This paper reviews the cadastral surveying activities and the processes for recording land titles in Ghana in view of existing laws. Experiences in developing procedures for reconciling the records from the two systems are also discussed.

Keywords: Cadastral survey, land records, land tenure, registration, survey regulation

INTRODUCTION
Land survey operations in Ghana started about 1880 (Osei, 1978), and precedence was given to cadastral survey, which seemed to meet the immediate requirement of the colonial administrators. About this time the main interest of the colonial masters was in the gold fields and the Chiefs began to give out mining concessions to alien con-
cerns on a wide scale. The need of some form of control and identification of these concession areas was obvious. The colonial administrators brought into the country a group of officers of the Royal Engineering Regiment of the United Kingdom to be attached to the Mines Department. The duties of these officers comprised not only triangulation and topographical mapping but also cadastral surveying, including delineation of property boundaries. The rich minerals and agricultural potential of the country made land value high. Also, the litigious propensity of boundaries meant that boundary disputes were frequent and called for reliable cadastral records. In addition, after independence, cadastral information was needed to unlock the intrinsic value of land for poverty alleviation and national development. These necessitated the enactment of two laws in 1962 – the Land Registry Act (Act 122, 1962) and the Survey Act (Act 127, 1962) to regulate land administration and land survey activities in Ghana respectively. However the implementation of these laws and subsequent legislative instrument has created two categories of cadastral records. This dual registration system is one of the main factors contributing to the general indiscipline in the land market characterized by conflicts and endless litigations, illegal and unrecorded land market activities (MLF 1999*).

CUSTOMARY LAND TENURE SYSTEM
Historically, the creation and management of rights and obligations to land in Ghana were matters for customary authorities. That arrangement has been altered by statute law and important elements of the stool/skin (customary authorities) lands now rest with the government (Woodman, 1994). It can be briefly noted that the rights that make up customary land tenure can be categorized under four main headings: allodial, customary freehold, leases and lesser rights. The holders of these rights include the chiefs, members of stool/skin, clan lineage and family. A land market exits and operates in this customary land tenure environment. More commonly, customary owners operate their own systems for recording rights and obligations in relation to land, such as public memory and sometimes written agreement (Kumbun-Naa Yiri II, 2006).

CADASTRAL SURVEY
The primary function of cadastral survey is to lay the foundation and satisfy the initial requirements of a land register by defining the parcels and land, which constitute the objects and units of the record. By doing this in a methodical way within the settling of the appropriate administrative and economic sub-division of the territory concerned, it provides the orderly basis, which is necessary if the construction, and conduct of the register is to be economically effected throughout such territory within a reasonable period. Therefore cadastral survey takes care of all the technical aspects of any Cadastral system. The duties, which a cadastral survey is called upon, to discharge throughout any territory that is to be brought on the land register, may be summarized as the definition of the parcellation of the land:

1. Within the appropriate administrative and economics subdivision of such territory in a manner which will enable any parcel of land to be unambiguously located on the ground at need and if need be to the satisfaction of a court
2. Will ensure that there are no gaps and no supposititious overlaps in such parcellation and
3. Will embody all changes in its distribution and surface pattern as these occur. These duties like those of the register, which they complement and served are continuous and un-ending.

SYSTEMS OF LAND REGISTRATION IN GHANA
There are three main systems in Ghana for the registration of land and instruments affecting land (MLF, 2001). These are:

- The Deeds Registry, which registers deeds
- The Land Title Registry

* MLF - Ministry of Land and Forestry (Ghana)
The Lands Commission, which keeps copies of leases that are granted, or consented to, by the land administration agencies.

Since the records of any cadastral system are created by the registration system operating in the country, in the following sections we will be concerned with the legal framework within which the registration systems operate. The lands Commission has an extensive set of records relating to the grants of interests in government land and stool/skin lands (the later being their responsibility since 1960). Records are kept at the Lands Commission headquarters in Accra and where the land is outside Accra, in the regional offices of Lands Commission.

LAND REGISTRY ACT. 1962 (ACT 122)
The deeds registry is established under the land Registry Act. Under the Act, the state registers any instrument, which conforms to the regulations of the Act. In effect it is the Deed itself, which is registered. A Deed is however termed a record of an isolated transaction and consequently is not an evidence of its legality. Before any dealings can be safely effected, the ostensible owner must trace his ownership back to a good root of title. Section 4 of the Act specifically states - "No Instrument except a will or probate, shall be registered unless it contains a description (which may be by reference to a plan) which in the opinion of the registrar is sufficient to enable the location and boundaries of the land to which it relates to be identified or a sufficient reference to the date and particulars of registration of an instrument affecting the same land and already registered". It appears from the section that there is no obligation for survey if the registrar is satisfied with the description of a parcel. The operation of the system of registration of Deeds in the country is thus sporadic and voluntary and it is said to be mainly a catalogue of documents supported by some individual maps, which are not maintained on a comprehensive basis. To date only a small part of the total area of Ghana is registered.

THE SURVEY ACT 1962, (ACT 127)
The Land registry system operating in the country invariably dictates the form the Survey Act takes. This becomes apparent when you examine the provision of Act 122 with special reference to section 4 and the relevant section of Act 127. Apart from specifying who qualify to practice as official surveyors and licensed surveyors, section 25 of Act 127 prescribes two forms of plans for attachment to Deeds for registration, namely Cadastral Plans and Certified Plans.

CADAstral Plans - The Act defines cadastral plans as plans purporting to show boundaries of land with accuracy and giving exact measurements by which the boundaries may be demarcated on the ground such maps or plans being made in conformity with the result of a survey carried out by an Official Surveyor or Licensed Surveyor to be certified by him and requiring whether made by an official surveyor or by a license surveyor to be approved by the Chief Survey Officer or any person appointed by him for that purpose.

CERTIFIED Plans - On the other hand, certified plans are plans purporting to show boundaries of Land with accuracy, and giving exact measurements by which the boundaries may be demarcated or re demarcated on the grounds – such plans or maps being certified by a licensed surveyor.

The Certification normally takes the following form:

I …………… Licensed surveyor certifies that this plan is faithfully and correctly executed by me and accurately shows the limits of the description of the land of the land given to me by my client.

SIGNED ………………………

LICENSED NO…………………

DATE. ………………………
The implementation of section 25 of Act 127 has created two sets of cadastral survey records in the system being kept at different places. Invariably cadastral plans prepared for all Government Lands and the cadastral survey records are kept in the Survey Department. The Survey Department has no records of surveys carried out for certified plans. The assumptions are that individual licensed surveyors who certified them keep these records. Unfortunately the implications of section 4 of Act 122 are such that some of the plans certified may not be as a result of any survey carried out in the field but merely by tracing with projected bearings and scaled distances from topographical maps, town sheets or unapproved layout schemes which are submitted by draughtsman and signed for a fee by some unscrupulous Licensed Surveyors. In effect section 4 Act 122, aided by section 25 of Act 127, together have contributed largely to the uncertainties in the land delivery systems with regards to unreliable records we have to deal with.

SHORTCOMINGS OF ACT 127
Comparing Act 127 with other similar acts from South Africa, Zambia, and Australia etc, we find that Act 127 is silent about the following:

1. The appointment of Director of surveys, his qualifications, legal status, duties etc.
2. The establishments of survey Board for the purpose of promoting and controlling all matters affecting Geodetic, Topographical, Cadastral and Hydrographical surveying in the country. As a result there are no proper mechanisms put in place to discipline unscrupulous Licensed Surveyors and also for aggrieved Licensed Surveyors to seek redress.
3. The establishments of Survey Regulation Board to make regulations within the framework of the Act. Even though section 24 of the Act is supposed to cater for this, however if provisions have been made in Act 127 for the establishment of a survey Regulation Board in place of the minister it would not have taken us 27 years to get legislative instrument (LI) 1444 in 1989.

LAND TITLE REGISTRATION LAW, 1986 (PNDC L152)
The land title registry is established and operates under the Land Title Registration Law. The intention here is not to review the whole law but rather to establish the link between (PNDC L152) and LI. 1444. As highlighted above, by allowing certified plans to be attached to instruments for registration under Act. 122, unqualified surveyors aided by unscrupulous Licensed Surveyors explored the loopholes in the system thereby making dealings in land difficult, uncertain and costly and at the same time encouraging litigation. There was therefore the urgent need to explore other avenues to redress the situation and this led to the enactment of the PNDC Law 152. The objectives of this law are:

1. To give certainty and facilitate the proof of title and
2. To render dealings in land safe, simple and cheap and prevent frauds on purchasers and mortgages

It appears there was a rush on the part of our legal framers to introduce the land Title Registration Law, 1986 in the country. If the legal framers have been able to trace the weaknesses in the Deeds Registration System among others to the

1. absence of maps and plans of scientific accuracy to enable the identification of parcels and ascertainment of boundaries and
2. lack of prescribed forms to be followed in case of dealings affecting land or interests in land then the logical thing would have been to take steps to correct them. It is pertinent to note that the Deeds Registration has been made to work in other countries like South Africa, France, the Netherlands etc. Besides, since coming into law in 1986, the implementation of PNDC Law 152 is still limited to Accra, the capital of Ghana. Even though Kumasi, the second biggest city in Ghana, has been declared a land title Registration District, it is still struggling to take off.
This means the bulk of land dealings in the country are still being conducted under the land Registration Act (Act 122, 1962) with all its imperfections and this state of affairs will continue to be the case for considerable number of years to come. It is therefore very imperative that actions are taken to remove all the weaknesses in the Deeds Registry system to make it more effective and reliable. We can use the salient features of the South African Deeds Registration system as a guide. These are:

1. No land transactions are valid until they are recorded in a land register.
2. Registration which includes ownership, servitude, mortgages, mineral rights, leases, contracts and restrictions are checked for their correctness by the registrar.
3. Registration can only be carried out after a survey has been completed according to specifications in which monuments mark the boundaries.
4. Each survey is checked by a government organization under the Surveyor General after an application for registration has been received.
5. The system does protect or guarantee boundaries.
6. It requires the incorporation of all legal or Cadastral surveys into a control network systems provided by Government Organizations of sufficient density.
7. Under the system, boundary disputes are rare and can be settled almost exclusively by the Licensed Surveyor from his survey records.

**SUPERVISION AND APPROVAL OF PLANS**

Part III of PNDC Law 152 specifies the important roles the Director of Surveys play in preparing registry maps for Registration Districts etc. and defining parcels and boundaries. In addition, section 6 refers to Demarcation and survey of boundaries all under the direction of the Director of surveys. Section 15 also states that ‘where land or interest in land have been registered and is evidenced by an instrument, then that land or an interest there shall not be registered under this law unless there is attached thereto a plan of the land which has been approved and duly signed by the Director of surveys or an officer of the Survey Department authorized by him’. This in effect calls into doubts all instruments registered with certified plans.

All the sections and part referred from PNDC Law 152, are meant to demonstrate the need for the enactment of LI 1444 which came into being on 28th April, 1989, and as stated in the preambles in pursuance of section 24 of the Survey Act (Act 127, 1962). The LI 1444 is to bring some checks and sanity in the preparation of plans for registration and also to serve as deterrent to unqualified surveyors.

To date it is very unfortunate to note that the impact of Legislative Instrument (LI) 1444 has not been felt very much in the system due to many factors chief among which are:

1. Lack of courage on the part of Survey Department to put in place the necessary mechanisms to implement the LI
2. Over centralized administrative set ups of the Survey Department causing undue delays in checking survey works from the regions
3. The fear of most licensed surveyors to submit their survey works for scrutiny thereby resorting to back dating some survey works
4. Intransigence on the parts of land administrators in the regions to comply with the provisions of the LI on the grounds that no directives have been issued from the ministry or lands commission and a whole lot of excuses which are meant to frustrate the workings of the provisions of the LI.

After a lot of pleas and agitation to implement the LI, the breakthrough however came when the executive secretary of the Lands Commission issued the general notice in the National and other dailies...
on June 28, 2001 on the requirements to be fulfilled before submitting documents to the Lands Commission for processing effective date 1st August 2001. Even after these directives all is still not well in the regions. If the LI 1444 had been made to work since 1989 to date there would have been some positive results in the improvement of cadastral survey works in the country to overcome some of the shortcomings of the Deeds Registry Act (Act 122, 1962).

THE ROLE OF TOWN AND COUNTRY PLANNING DEPARTMENT

The Town and Country Planning Department by its setup is charged with the responsibilities of preparing the land use maps in the form of layout schemes for towns and cities in the country and any part of the country so designated as a planning area. Ideally all the layout schemes prepared by the Department should be done on up-to-date large-scale topographical maps at the scale of 1:2500 produced by Survey Department. In the absence of such maps, the Department also has to use base maps prepared by licensed surveyors. All these large-scale maps should have contours on them to show the topography and the drainage patterns of the area. This will make it possible for the Department to show on the layout schemes different land use areas like – residential, industrial, recreational or open spaces etc. After the completion of the schemes and approval by the relevant authorities or committees – copies are then made and distributed to

1. Survey Department or Qualified Licensed Surveyors for the processes of demarcation and survey on the ground. Invariably in carrying out a layout scheme surveyors are made to understand that one of the main objects of the survey is to enable deed plans to be attached to a lease to be prepared for each individual plot. The deed plan must give sufficient data to enable the situation of the plot to be determined easily and must include all necessary data for the determination and description of the boundaries. The demarcation of a town layout is therefore to be regarded as consisting of two essential parts namely:
   i) The actual demarcation on the ground
   ii) The accurate survey and record of the position, shape and size of each plot and its relation to others

In most cases both operations can usually be carried out at the same time and must be carried out by Official Surveyors or Licensed Surveyor.

2. The other copy which is sent to Lands Department is to be used as provisional index map - This eventually will have to be replaced after the actual demarcation and survey has been completed by the surveyor and checked by Survey Department

What we have briefly described above are the normal procedures for preparing town layout schemes and translating them on the ground by way of proper demarcation and survey. They are collaborative efforts between dedicated officers from Town and Country Planning Department, Survey Department and Lands Department. These team works were used to produce the beautiful and well planned areas you see around Accra like Airport Residential Areas, Cantonments, Teshie-Nungua Estate, parts of Tema township just to mention a few. Recent practices show the following departures from the norm.

• Town layout schemes are prepared on maps with doubtful accuracies and in some cases on enlarged or blown up sheets from 1:50,000 or 1:62500 topographical sheets to 1:2500.
• Most areas are assumed to be flat.
• Relevant authorities do not approve the prepared layout schemes yet they are used in preparing site plans.
• In most cases where demarcations are done they are done by unqualified surveyors and are not surveyed
• Invariably the schemes are violated as a result of pressures from land owners and interested groups

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The above are only a few of some of the obvious departures from the norms. The results of these are what are found around as slums in some of our Towns and Cities, which really do not give credit to the Profession. It is therefore necessary for the professionals to work together to salvage the situations in order to solve the problem and leave behind good records and legacies for generations to come.

RECONCILING THE OLD AND NEW RECORDS
From the review above we can classify our land information on our land registers as follows:
1. Those generated from Deeds Registry Act 1962, Act 122 and based on Cadastral Surveys controlled by Survey Act 1962, Act 127. These have been classified as those based on
   A. CADASTRAL PLANS – prepared mostly for government lands. Some of this set of information can be said to be old and need to be properly purged by using all available maps covering the areas involved. For this purpose we have to set tolerances for positional accuracy. Identifying common points between the old and new maps, we can perform simple coordinate transforms to bring the old maps in conformity with the new maps. Where there are no new maps available, we have to use GPS to generate new coordinates for common points to calculate the transformation parameters. (Fosu 2002)
   B. CERTIFIED PLANS - Those based on certified plans will create more problems. Apart from being old, most of them cannot be used for any relocation surveys. Where there are new maps covering the area, then the old index maps and layout schemes have to be revised using the new maps. In the case where no new maps are available, complete re-survey has to be undertaken. If the re-survey reveals major differences between the new and the old plans, then the logical thing to do is to replace the old plans with the new plans. When plans are found to be wrong, they are certainly of no use to anybody and they have to be replaced since they cannot be used to support any court action.
2. We can classify the new records as those based on plans prepared after the enactment of Survey (Supervision and approval of plans) Regulations, 1989 LI 1444. These plans are in effect Cadastral plans and can be relied upon to support the Act 122. In the event of declaring the area these plans cover as a Land Title Registration District, there will be no difficulty in accepting them to support the Land Title Registers.

CONCLUSION
The paper has reviewed the various land registration systems and legislative instrument for recording land ownership in Ghana. It has also shown how they have impacted on our land records. The obvious conclusion is that we have two sets of land records to deal with, and these have to be reconciled. Purging and maintaining the maps that support them can reconcile some of the records. For others we need to accept the fact that they are unreliable and those have to be replaced as new records are received. By so doing we can build our records which can be said to be reliable. In the light of the above the following conclusions can be drawn:
1. Section 4 of the Deeds Registry Act, Act 122 should be amended in view of LI 1444.
2. All deeds presented for registration should be related to the parcels of land, which they reflect. They should be examined before registration to ensure their consistencies with previously registered deeds. In effect the registrar should be properly empowered to accept or reject deeds presented for registration.
3. A complete survey control network densification program should be initiated by Survey Department to cover cities, towns, suburban and rural areas of Ghana. LI 1444 can work properly if control network system is properly densified.

4. Based on the control densification program, the mapping at varying scales both in the form of line and photomaps covering cities, towns, urban and suburban areas should be intensified. As far as the rural areas are concerned, priority should be given to the most economically potential areas. This will lay the foundation to extend the Land Title Registration law to the rural areas.

REFERENCES

LI 1444 (1989). Survey (Supervision and Approval of plans) Registration Assembly Press, Accra Ghana