An Introduction to the Use of a Case Study Methodology to Review Cadastral Reform in Papua New Guinea

Mary D. Iatau
Graduate Student - (on leave from Department of Lands, Papua New Guinea)
Department of Geomatics, The University of Melbourne, Victoria, Australia
email: iatau@sl.i.unimelb.edu.au

and

Ian P. Williamson
Professor of Surveying and Land Information
Department of Geomatics, The University of Melbourne, Victoria, Australia
email: i.williamson@engineering.unimelb.edu.au

ABSTRACT

Cadastral reform is generally considered to be complex, costly, high risk, time consuming and often difficult to introduce. This paper reviews the use of a case study methodology to assess its effectiveness in understanding such reforms.

Current cadastral reform in Papua New Guinea (PNG) is used in this paper as an example to evaluate the methodology. Case studies in two different provinces are described to highlight PNG’s social, political, economic and cultural background and the performance of recent cadastral reform initiatives, particularly with regard to the registration of customary land.

1. INTRODUCTION

Increasing problems of land compensation demands, land disputes, environmental damage and uncontrolled land and resource exploitation resulting from a rapid increase in land and resource development in PNG, particularly on customary land in the last ten years has put great pressure on the existing cadastral system. To modify and improve the land administration and cadastral system to provide more efficiency to facilitate economic development both on alienated and customary land, the PNG Government commenced the Land Mobilisation Programme (LMP) in 1989.

This paper supports the premise that cadastral reforms such as the LMP are often complex, costly and time consuming and sometimes high risk, especially in countries where customary tenure is predominant. Recognising the complexities in understanding existing customary tenures and cadastral reform, this paper aims to review these systems by applying a rigorous case study technique to assist in understanding some of the issues and possible options. It uses two LMP pilot projects for customary land registration as case studies. Another key objective of the paper is to assess the effectiveness of the case study methodology in understanding the complexities in cadastral reform, customary tenures and the social and cultural implications.
2. APPROPRIATE AND EFFICIENT CADAstral SYSTEMS

As stated above, it appears PNG's cadastral system is not serving its national objectives and is considered inappropriate. It is therefore necessary for some discussion on the role of the cadastral system and what constitutes an appropriate system to be able to understand what the PNG cadastral system requires to improve.

Land policies are usually part of national, state and provincial policies and generally relate to economic development, issues of equity, social justice and political stability. Land administration comprises the functions involved in implementing land management policies. The cadastral system is an integral part of land administration and is a fundamental tool through which these policies are realised.

The cadastre is the primary means of providing information about land such as location, size, value, use, improvements, owners, occupiers, rights, responsibilities and restrictions relating to land. This concept is further explained in the International Federation of Surveyor's `Statement on the Cadastre' (FIG, 1995), which defines the cadastre as "a parcel based and up-to-date land information system containing a record of interests in land." The Statement also describes many of the available options in establishing an effective and efficient cadastre. This paper also draws on the cadastral principles described in the Bogor Declaration (UN, 1996), particularly its statement on the range of desirable cadastral infrastructures for developing countries with customary tenures which are required to support "...a vast array of administrative and institutional options in designing and establishing an appropriate cadastral system, providing a continuum of forms of cadastre ranging from the very simple to the very sophisticated."

Accepting the description and principles in the above documents as to what constitutes an appropriate and efficient cadastral system, allows the case study methodology to review the performance of the PNG system to assist in designing such a system.

3. CASE STUDY METHODOLOGY

One of the primary objectives of this research is to evaluate the effectiveness of the case study methodology while using it to understand "how" and "why" the PNG cadastral system operates and interacts with local conditions. It is not aimed at solving all of PNG's cadastral problems but to gain a detailed understanding of the existing conditions, to make some comparisons between different jurisdictions to enhance understanding, and to identify its strengths and weaknesses before recommending any solutions.

Considering the complexity of cadastral reforms, this paper argues that research and rigorous study should be an important component of every cadastral reform. Problematic areas of cadastral systems and reforms should be identified and examined in more detail through case studies to enable better understanding to be able to identify appropriate solutions. Recognising the relationship between anthropological and cadastral studies, Williamson and Fourie (1997) describe this concept in more detail and suggest that anthropological methods of case study be adopted to sharpen the frontiers of cadastral studies. It is with this focus that this study adopts an anthropological case study technique to understand the complexities in cadastral reform and customary tenures.

The methodology adopted for this study is derived from an anthropological classification of case studies as described by Williamson and Fourie (1997) and incorporates the following basic components as shown in Figure 1. The paper concentrates primarily on the first component of the methodology and the first part of the second component to enable some comparison of the case studies. The subsequent sections of this paper describe each part of the methodology as used to review PNG's land administration and cadastral reform.
4. ANALYSIS OF THE SETTING

4.1 Introduction

The *setting* comprises the following brief descriptions of PNG’s ethnography and its cadastral system. By reviewing and analysing the setting and considering the social and economic factors in the light of cadastral principles and context, the authors believe certain problematic areas may be highlighted and identified for research and study.

4.2 Ethnography

With a population of about 3.5 million people (1985 census) spread over a total land area of 462,840 sq.km and having about 750 different languages (Schroeder, 1992), PNG exhibits great diversity in customs and cultures. James (1985:2) describes the diversity in culture and customs as a major problem PNG has to manage as a nation. Administratively the country is divided into 20 provinces, with administrative functions being implemented both centrally and provincially.

The 80% of the population who live in the rural areas are sustained by subsistence farming whilst those in the urban centres depend mostly on formal employment. However in more recent times the western market economy is increasingly impacting on PNG to change it from a traditional subsistence society to a cash economy as a result of major natural resource development activities such as mining and logging. In other areas, the change is effected by the transition from traditional subsistence farming to more intensive agricultural production of cash crops.

4.3 The Cadastral System

PNG inherited the Torrens title registration system from Australia which it still operates for only 3% of alienated land. Registered titles are legally indefeasible and a government guarantee is provided to compensate current title holders for any loss through forgery or fraud, thus providing a high level of security and certainty of ownership (Turtle,1991: 87). However, the PNG Torrens system has not been modified to handle multiple ownerships of single parcels of land, especially with shares in the land; to cope with ownership of high rise flats and apartments (strata titling); and to record forms of customary tenure and over-riding interests.

Before decentralisation of land powers through the LMP, the Department of Lands (DOL) has been the central government body responsible for administering the alienated land held under the Torrens system. However, the need to extend DOL’s traditional function to include management and administration of customary land was necessary as a result of the following pressures:-

- a shortage of alienated land to support the rapid rate of development,
- excessive land compensation demands by customary land owners,
- inadequate involvement or participation of customary land owners in economic development, and
- no control, co ordination and monitoring of dealings on customary land by land owners and outsiders.

The existing sporadic processes of registering customary land through the Land Tenure Conversion
(LTC) Act, 1963, and the Lease Lease Back (LLB) Scheme proved to be inadequate, expensive, lengthy and cumbersome. While on the other hand, the bureaucratic and administrative bottlenecks within the cadastral system and the associated infrastructure are a major constraint.

The above issues, together with the inflexibility of the existing Torrens system, suggest the existence of a slow, inefficient, inappropriate and out-of-date cadastral and land administration system. In response, the PNG Government commenced the Land Mobilisation Programme (LMP) in 1989 to improve the deficiencies of the existing system. The World Bank and Australian Aid Agency (AusAID) provided US$46.8 million to fund the first five years of the LMP. The main objective of the LMP is "To contribute to economic growth through more productive use of land resources throughout the country, whilst promoting equity, employment, participation and social stability." (World Bank Report No. 7592-PNG, 1989: 9).

5. CREATION OF HYPOTHESIS FROM SETTING REVIEW

By reviewing the setting, it is recognised that PNG's social and cultural life is considerably impacted by the cash economy. To be able to solve land related problems and to manage the land and the resources on the land efficiently requires appropriate land information. Therefore the need to identify an appropriate cadastral system to administer all tenure arrangements is inevitable. However this process can be a very difficult task as a result of PNG's minimal exposure to western civilisation and associated laws and procedures.

While accepting customary land registration as the area for this study, it is then necessary to draw the boundaries of the study to encompass a limited perspective to study. It is identified from the setting that the administrative and cadastral infrastructure supporting the current processes of LTC and LLB is not functioning effectively to enable efficient registration of customary land. Therefore the hypothesis for this study is:

A simple, progressive, well organised and effective cadastral and land administration system, which includes customary land, and is aimed at eliminating all procedural and legislative flaws, is necessary to successfully realise and implement national economic, environmental and social policies.

The next step is to either prove or disprove the hypothesis and this requires focussed field data collection. Data collection involved the first author spending six weeks in the LMP pilot areas, interviewing and interacting with stakeholders. The questionnaires were designed with the assistance of Dr. Clarissa Fourie, an anthropologist with extensive background in improving informal settlements in the South African cadastre (Fourie and van Gysen 1995, and Williamson and Fourie 1997).

6. CASE STUDIES AND DESCRIPTION OF THE PROVINCES

6.1 Introduction

The case studies presented in this paper describe the different initiatives being undertaken to register customary land in the two LMP pilot provinces. Fourie and van Gysen (1995) and, Williamson and Fourie (1997) argue that a researcher undertaking a case study should consider technical, administrative and socio-economic factors and socio-political behaviour associated with the cadastral system in order to understand the local conditions and circumstances surrounding
cadastral reforms. It is within this context that the case studies are described.

**6.2 East New Britain Province Case Study**

Located on the circum-Pacific volcanic zone on the island of New Britain and to the east of New Guinea, the East New Britain Province (ENBP) has a population of 90,000 (1980 Census), generally known as the *Tolais* who speak three indigenous languages; the Kuanua, Bilur and Duke of York, (Fingleton, 1985). The province is supported by a high yield of the main cash crops of copra and cocoa due to the richness of the soil as a result of regular volcanic activities.

The Tolais practise a matrilineal system in which land rights are inherited from mothers known as *Vunatarai*. Vunatarai means a group whose members trace their matrilineal descent from a single known common ancestress or from a number of known ancestresses whose common descent is assumed. Fingleton (1985) explained that the tenure to any parcel of Tolai land cannot be understood except within the historical framework of emerging social and political relationships. Land holding is recognised through kinship groups. A Tolai’s security of tenure is often under constant threat by the influence of big men (village elders) and sorcerers (witch doctors) in the villages and therefore has to be constantly ensured by maintaining kin relationships, especially by being actively involved in social and ceremonial activities.

The most significant development in the cadastral reform with regard to customary land is the creation and implementation of the Customary Land Management System (CLMS). The Tolais are seen to be initiating the replacement of the informal, unwritten system with formal recording of land tenure. Using simple compass and chain surveying techniques the local youths are trained to carry out demarcation and adjudication. Karani (1995) pointed out that basing tenure on memory was becoming unreliable as political and social structures are constantly changing.

**6.3 East Sepik Province (ESP) Case Study**

Located on the north eastern part on the main island of New Guinea, the East Sepik Province (ESP) is inhabited by the racial group commonly known as the Sepiks. The Sepiks speak at least 214 languages out of the estimated 750 languages of PNG (Schroeder, 1992), and have a simple and flexible social structure. The village is the largest and the most important political unit. Rights to land are recognised patrilineally, and like ENBP, communally through kinship lines. The geographical structure is flat and swampy around the coastal areas and rugged and mountainous towards the interior.

The provincial government initiated, through the LMP, the country’s first ever provincial land legislation to incorporate the regulation of dealings on customary land. Power (1991:101) explained that the prevention of discussions and consensus of sensitive topics due to linguistic diversity and major regional differences, and with very insignificant amount of alienated land for development in the ESP, were reasons for the new legislation. Another factor contributing to the drafting of this legislation is to enable land owners to actively participate in resource development themselves. The people were reluctant to sell their land as they became more aware of the value of their land.
Several joint venture projects were initiated around the Province as a result of this legislation and campaign. Nevertheless, the administrative and beaucratic bottlenecks in the cadastral infrastructure continue to pose delays in registration and provision of land titles. Unfortunately this encourages people to enter into illegal land dealings with foreign companies, especially for resource development.

7. CONCLUSIONS

Preliminary evaluation of the two case studies indicates differences in approach to registration of customary land at a decentralised level. The different approaches are seen as a reflection of the social, political, legal, economic and geographic backgrounds of the peoples within the two study areas. The ENBP initiatives are being driven by the people themselves with support from the provincial government whilst the ESP initiative is driven by the provincial government which has set up the political and legal infrastructure. Despite some achievements, both case studies indicated significant slow and inefficient provision of title documents. It appears that decentralisation of functions of the Land Titles Commission is essential to improve and support the provincial initiatives.

Initial assessment of the case study methodology adopted in this study is seen to be successful as a researcher is able to understand why certain things happen. The process is objective and focuses on solving a certain cadastral problem. Whilst reviewing the setting, a researcher might also identify other problems which may lead to further case studies, so in reality one problem is addressed at a time, which is important in understanding the complexities of land tenure and associated cadastral reforms.

ACKNOWLEDGMENTS

The authors wish to thank AusAID, the PNG Government and the University of Melbourne in supporting this research. This paper is a shorter version of a paper by Iatau & Williamson (1997) submitted to the Australian Surveyor for publication.

REFERENCES


