

Rethinking the Role of Land Administration in Housing Production: A Contemporary Perspective

Muyiwa Elijah AGUNBIADE and Abiodun, KOLAWOLE, Nigeria

Keywords: Housing, land administration, land management, production, process, integration

SUMMARY

Land is a major input in housing production. Its sound administration is argued as imperative to improved housing outputs. From a conventional perspective it is argued land *administration* supports *housing* primarily through the provision of tenure security. This paper advances a new argument: for land administration to assist in providing adequate housing it must not only support tenure security, it must also provide an integrated set of land administration processes. In other words, even if tenure appears to be adequately secured in legal, social, and economic terms, it is actually the establishment of linked land administration processes that enable production of adequate housing. From this argument, a new conceptual model is developed to explain this broader relationship between land administration and housing. A research synthesis of past studies and specific case studies of Victoria in Australia and Lagos in Nigeria inform the arguments.

Rethinking the Role of Land Administration in Housing Production: a Contemporary Perspective (7977)
Muyiwa Agunbiade (Australia) and Abiodun Kolawole (Nigeria)

FIG Working Week 2016
Recovery from Disaster
Christchurch, New Zealand, May 2–6, 2016

Rethinking the Role of Land Administration in Housing Production: A Contemporary Perspective

Muyiwa Elijah AGUNBIADE and Abiodun, KOLAWOLE, Nigeria

1 INTRODUCTION

Housing is recognised worldwide as one of the most important basic needs of humankind after food (United Nations, 2009). Its production involves the processes and methods employed to construct or transform tangible inputs (*land*, labour, capital, building materials and physical infrastructure) intangible inputs (*policies*, ideas, *information*) into dwellings (Agbola, 2005, Olatubara, 2007, UN Committee on Economic Social and Cultural Rights (CESCR), 1991).

Housing production faces a lot of challenges. This led to a considerable shortage of decent and affordable housing globally (UN-HABITAT, 2008). As revealed through past studies, the contribution of land as one of the production factors is considered significant (Augustinus, 2010, Gurran *et al.*, 2009). Given the importance of land and its administration in housing production, a better understanding of the relationship between land administration and housing production is required. However, the links between disciplines and practice in land and housing are currently uncertain. Even more ambiguous is the relationship between different functions of land administration (land tenure, land value, land use, land development) and the way they facilitate adequate delivery of land for production of housing (Augustinus, Augustinus, 2010, Gurran *et al.*, 2009, Kelly *et al.*, 2011, Cox, 2011).

Currently, existing literature focus on each of the land administration functions: as exemplified by a considerable emphasis of scholars (De Soto, 1996, De Soto, 2000, Kaufmann, 1999, Williamson, 2008) on cadastre, tenure and ownership right. Some knowledge also exists, in parallel, about the relationship between land value and housing (De Soto, 2000, Dye and England, 2010, UN ECE, 2005). There is also considerable work on land use and land development (Barker, 2006, Brash, 2008, Cheshire, 2009, Kelly *et al.*, 2011, Mildner, 2009, Goodman *et al.*, 2010a).

Notwithstanding these past research works, integrated links between theories and practice are unclear, especially between different functions of land administration to allow better understanding of the implications for housing. In other words, there is insufficient knowledge about how the

various functions of land administration might be integrated *theoretically* and *conceptually* in a way to sufficiently support improvement in land delivery for housing.

This paper develops context for establishing relationships between land administration and housing production, through a review of relevant theoretical underpinnings. It starts with a general discussion on the fundamentals of housing. It mentions briefly all the major components of housing production processes and focuses on land delivery (land preparation) aspects through a detailed overview of land administration. These are viewed from the theoretical lenses of political economy, economic production factors, structure and agency. Subsequently, the connections between land administration functions and housing production processes are established. It concludes that the conventional view that land administration supports land information, when expanded, also applied to the realm of land development assessment in relation to land delivery for housing production.

2. METHODOLOGY

This paper is based on extensive assessment of previous research works in parallel with the prevailing land preparation for housing production in practice using a case study approach. The review focuses on two broad topic areas: land administration and housing. The land administration component involves a review of the land management paradigm that underpins the *theoretical framework* as developed by Enemark *et al.* (2005) . The housing component involves a review of the fundamentals of housing. This includes the concept and processes of housing production. The combination of the two led to the development of the *conceptual framework*. The combination of the *theoretical and conceptual frameworks* is contextualised through a case study approach using Australia and Nigeria. This, however, is not to engage in a direct comparative analysis but, the assessment of the situation in both countries is intended to provide insights to land administration integration within different contexts. In particular, the determination of ownership rights and development assessment processes. This is to allow for a broader perspective in this regard.

The review of literature shows the situation in the theory and disciplines, while the assessment of two cases shows the situation in practice. The overall aim is to develop a conceptual framework that acknowledges interrelationships between land administration and housing within a broader spectrum of human development index (developing to developed countries).

The two case countries were selected based on a broad classification of the country's development status (UNDP, 2009). A country each for 'developing' and 'developed' countries is selected using the Human Development Index (HDI) – being the composite statistic used as an index to rank countries by level of human development. It is assumed that the situations on both ends of the HDI will provide broader spectrum of assessment to inform a generic framework. In addition to the HDI, Australia and Nigeria are selected considering the land administration structure in the both countries. The Australian land use planning model, like Nigeria for instance, is an amalgam of the British and American planning systems that combines the discretionary and zoning planning

Rethinking the Role of Land Administration in Housing Production: a Contemporary Perspective (7977)
Muyiwa Agunbiade (Australia) and Abiodun Kolawole (Nigeria)

FIG Working Week 2016
Recovery from Disaster
Christchurch, New Zealand, May 2–6, 2016

systems. Australia is also composed of federated states like Nigeria and there are similarities in terms of high incidence of population growth in the major cities. The states of Lagos – Nigeria and Victoria – Australia are selected because of their high incidence of population growth and the higher population densities relative to the average population density for other states within the respective countries. The study focused on the capital cities: Melbourne and Lagos metropolis by considering the challenges of land management for residential development in both cities.

An online survey was developed which contained some open-end questions. Some of these were designed to measure interdependence of agencies interactions by focusing on the assessment of agencies' interrelated roles regarding land administration, housing production and urban development. In Nigeria, all the eighteen local governments within Lagos metropolitan administrative boundaries were considered for inclusion in the survey. Six District Offices and 14 Local Planning Offices in Lagos responded to the survey letter and provided contact details as requested through the pre-survey letters. The pre-survey letters were sent to Local government CEOs, the referral authorities, government departments and agencies (state and federal) advising them of the research and pending surveys. The letter sought participation by requesting the nomination of senior staff members to represent appropriate units/departments to participate in the survey. This was important, as it was critical that the questionnaire was sent to the appropriate contact person rather than the indiscriminate targeting of staff members in respective organisations. In particular, participants were sought from units that deal with: strategic, statutory and infrastructure planning within the identified organisations. Overall, 63 responses were received from the local government participants. In addition to the local government participants, valid responses were received from the representatives of 27 state lands and housing related agencies, as well as, 11 at the federal level.

In Australia, a sample of 28 local councils was selected from a universe of eighty-one local councils in Victoria. The selected councils included all the local governments in Metropolitan Melbourne. The regional local governments were not included in the selection. Responses were sought through pre-survey letters. 26 out of 28 local councils in Melbourne responded to the pre-survey letters. Out of the 26 that responded, four declined participating in the survey. Although 22 local councils provided contact details as requested and participated, but only 20 valid responses, representing 71.43% (of the 28 metropolitan councils) were included in the analyses. Two responses were not complete and thus not included in the analysis. Several units within the key departments that deal with land administration issues at the state level and federal levels were also contacted. Overall, 12 and five states and federal departments/units respectively provided useful responses that were included in the analysis. Overall, the responses were considered very satisfactory given the details requested in the questionnaire and the diversity of government agencies involved.

3. FINDINGS FROM THE REVIEW OF EXISTING KNOWLEDGE

3.1 Fundamentals of housing: a review

Rethinking the Role of Land Administration in Housing Production: a Contemporary Perspective (7977)
Muyiwa Agunbiade (Australia) and Abiodun Kolawole (Nigeria)

FIG Working Week 2016
Recovery from Disaster
Christchurch, New Zealand, May 2–6, 2016

The dynamics of human development from the prehistoric age to modern civilisation have significantly transformed the content, context and concept of housing. The initial view of housing as shelter has given way to a more matured perspective. This includes environmental dimensions in its generic form and encapsulates all systemic environments that influence housing (Olatubara, 2007). From this perspective, and by drawing from the general comment No 4 (1991) on the right to adequate housing (Article 11(1) of the UN covenant), housing includes the physical structure (shelter), legislations, infrastructure, services, and community facilities that are necessary for human wellbeing. In other words, it is the physical structure used as shelter and the environment of that shelter, including equipment and devices needed to achieve physical, mental and social wellbeing.

In this expanded view, housing is both a process and a product (Agbola, 2005). As a process, it is the design, the construction, the materials, the finance, the layout, physical planning and urban redevelopment. These involve bringing together and by utilising all the housing production factors within the social, economic and political structure of the society. As a product, it is a tangible entity or structure that includes the amount and allocation of space, resources and facilities. It is a social symbol, economic investment, and means of protection against weather elements. It impacts the quality of life of occupants and the neighbourhood in which it is located and reflects the social and economic values of the society (Omirin and Nubi, 2007). From this point of view, Agbola (2005), described housing as ‘a multi-dimensional bundle of uses and a complex product assembled through complicated processes’. The multi-dimensionality of housing is exemplified in Beyer (1965) spectrum of knowledge concerning housing. Figure 1 expands Bayer’s illustration by including the perspective of housing as being a product.

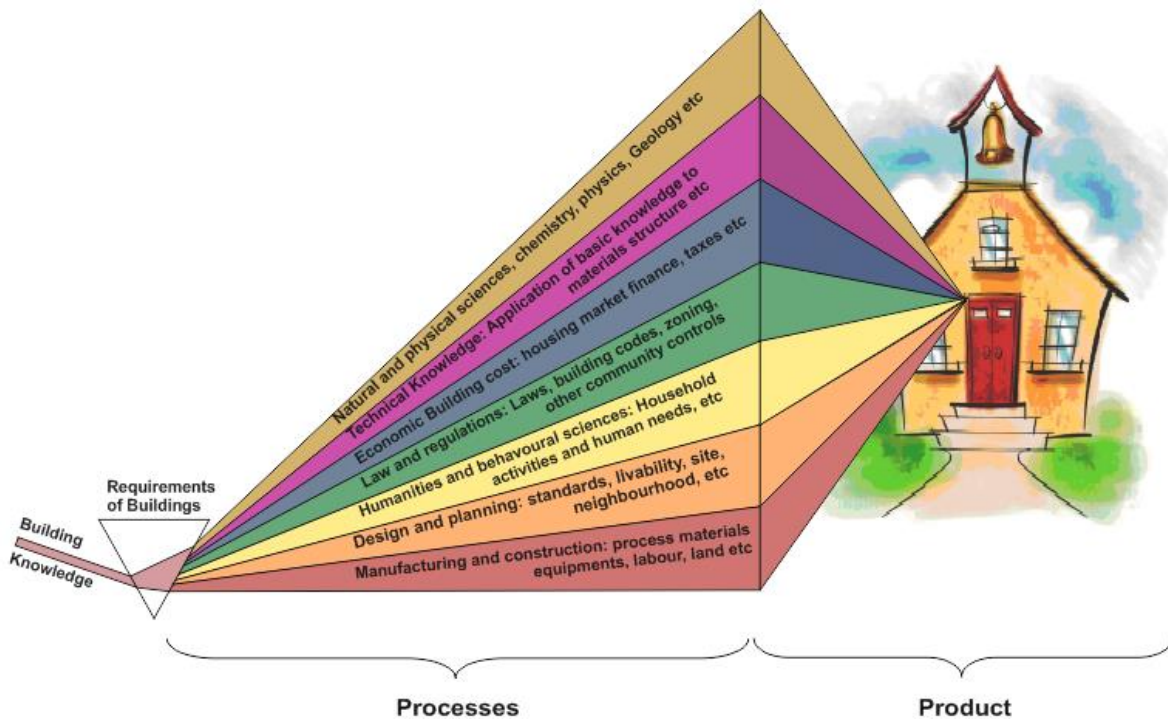


Figure 1: Spectrum of knowledge concerning housing
 Source: Adapted from Beyer (1965)

As illustrated by Beyer (1965), when housing knowledge is passed through the prism of building requirements, the spectrum of processes and activities is revealed. However, the significance of the processes in delivering the product is of considerable importance. In this regard, the processes need to be well articulated in order to be able to deliver the product. However, the product is not just shelter, it includes the totality of housing environment. One of these processes is land management, especially the integration of ownership and development rights through integration of land administration functions.

3.2 Review of land administration functions

A broad overview of the evolving nature of land administration within the context of housing production is discussed here. This is set within the changing and complex nature of people-to-land relationship. Traditionally, the primary objectives of land administration systems are to support land market operations. However, over the years, the trend has shifted to the development of broader land information infrastructures that has the capacity to support economic development, environmental management and social stability (Williamson, 2001).

Following from this perspective modern land administration theory has become that of land management paradigm as developed by Enemark et al. (2005), land tenure, land value, land use and

land development are essential functions of land administration. Theoretically, the paradigm identifies the principles and processes that define land management; however, in practice, land administration reflect the local cultural and judicial characteristics of each national jurisdiction (Williamson et al., 2010). This indicates the significance of the social and institutional arrangement of each jurisdiction.

This paradigm provides a better frame for this paper. From this perspective, land administration focuses on understanding the operational component of land management paradigm. This is expressed in the range of land administration functions of: land tenure (registration and title), value (property development, and the collection of revenues on land by government through sales, leasing and taxation, grand rent and stamp duty), land use (regulations, zoning and control), and land development (implementing land use through the development of infrastructure). The main interest in this paper is to assess how the interactions within and between these functions mediate effective production of housing. From this viewpoint, the traditional but narrow focus of land administration centring on cadastral activities in relation to land tenure and land information management is found not to be adequate and thus not consistent with the modern realities of land management.

3.3 Existing links between land administration and housing: theoretical perspective

There are many dimensions to understanding the relationships between land administration and housing. Given these various dimensions, it could be argued, consistent with the views of Agunbiade (2012), that it would only be fully understood from a multi-disciplinary perspective (beyond cadastre and land registration views). This is also consistent with the current global perspective of land administration focusing on the efficient land market and effective land use management (Williamson *et al.*, 2010). This has continued to influence the current thinking in the global arena and the present initiatives by international organisations to address issues of: governance, security of tenure, economic empowerment, and housing production.

It will therefore be useful to frame housing production within the perspective of the interrelated study areas of: political economy, economic dimension of production factors, and sociological dimension of structure and agency. These will provide broader theoretical and general understanding of the current link between land and housing.

3.3.1 The political economy perspective: land governance

Land governance has become a new way of thinking about land in the recent times. As described by Augustinus (2009:1) 'land governance is all about power and the political economy of land'. Consistent with Scully (1988:659), political economy is about the rules that govern the relationship of people to land and how this affects activities on land, in this case, housing production. The rules reflect the power structure of the society. These rules are developed in a way to entrench the power relation between individuals, social groups and the entire society. The quality of governance determine to a large degree the efficiency and effectiveness of land administration.

Scholars: Hall (1988), Watson and Hay (2003), Watson (2002), and Adams (2005) have used political economy to explore the ways in which persons and groups with common economic interests interact. Further to these, Adams (2005) argued that planning interventions in developmental projects, through the control of land use, involves interplay of many actors, thus, it is not value free. This explains dynamics of relations and interactions between actors such as: landowners, developers, investors, politicians, objectors and the ordinary members of the public as they shaped housing production process. The outcome of this research draws on the insights provided by maintaining a strong awareness of the political economy of land in shaping housing production. For example, the changing role of social and political organisations is considered to influence legal and institutional arrangements in respective national jurisdictions.

3.3.2 *Economic perspective: the production factors*

Understanding production is generally linked with the classical work of Smith (1976), Ricardo (1965), and Weber (1958) among others. A quick reference is made to the basic logic of production as advanced by these great philosophers through a brief reference to the discussions of theory of production. This becomes important since housing production draws from this perspective. For example, the returns to the production factors as inherent in the principles of production theory affect and motivate housing production (Agunbiade *et al.*, 2013).

The production factors (land, labour and capital) are central to the understanding of economic production in general and housing production in particular. While the three factors could be treated separately they are generally mutually dependent. The major utility of these interactions is the understanding of how each of these factors is utilised in housing production. This helps in analysing how participants (landowners, developers, investors, politicians, objectors) pursue their collective, corporate or individual strategies in achieving better outcomes, within the dictates of *structure* and *agency*.

3.3.3 *Sociological perspective: structure and agency*

The discussions of *structure* and *agency* underpin the understanding of the changing people-to-land relationship and the implications of these on land ownership structure and development assessment processes for housing production. Structure-agency relationship is viewed from the perspective of agency as being actors or agents (either individual or group) and social structures as bureaucracies, institutions, or state. Elder *et al.* (2003) and Silverstein *et al.* (2009:578), describe agency as a principle, whereby ‘individuals construct their own life course through the choices and actions they take within the opportunities and constraints of history and social circumstances’.

As Giddens and Pierson (2007) puts it: 'society only has form, and that form only has effects on people, in so far as structure is produced and reproduced in what people do'. This perhaps explains

the continuous tension between landowners, builders, and government in most national jurisdictions. The tension is manifested in the levels of contending issues regarding tenure practices, determination of fees, land taxes and charges, and the efficient location of uses and allocation of spaces.

3.3.4 Putting it all together

The combination of the different perspectives offered by different study area provides a holistic view of factors internal or external to land administration as it underpins housing production. Among the external factors are issues relating to population growth, urbanisation, technology and sustainability objectives. The internal and external factors are all integral factors impacting the understanding of interrelationship between land and housing. These viewpoints are utilised to conceptualise how the variables of housing production are related. It identifies areas of convergence or overlaps between several related fields. The inter-relationship is illustrated in Figure 2.

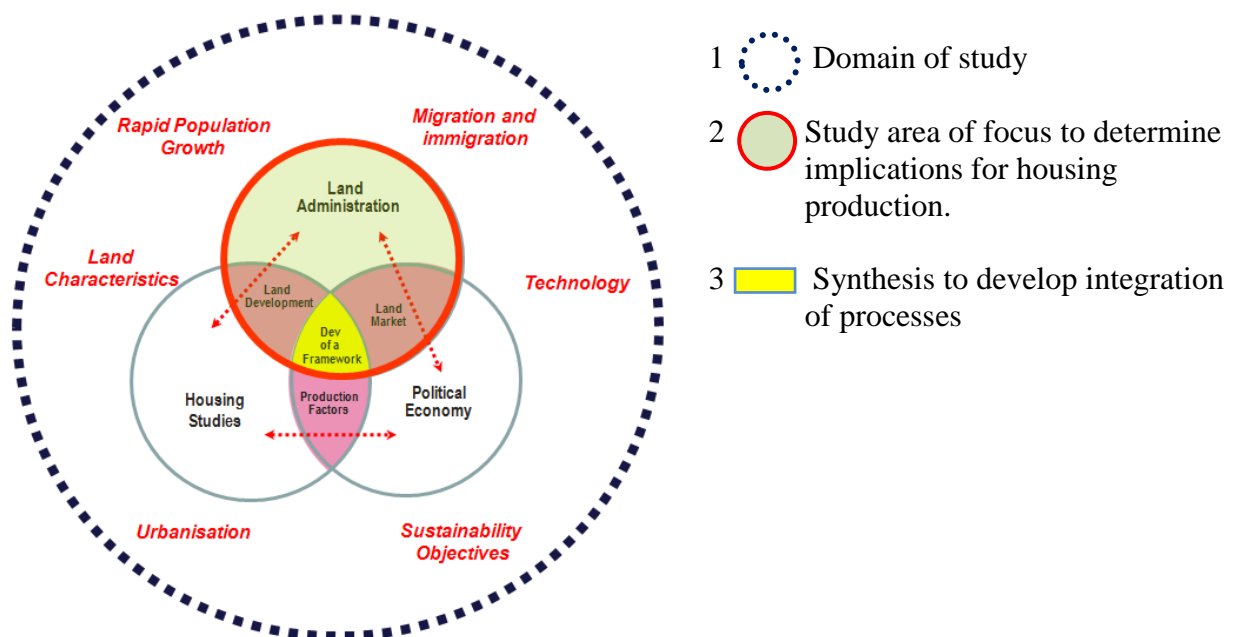


Figure 2: Illustrating study areas in understanding the interrelationship between land and housing

The following discussions, concentrate on the areas of convergence between the study areas: land administration, housing studies and political economy. These are structured within the context of what is obtainable in practice. The illustration in Figure 2 provides a framework to conceptualise

the contemporary role of land administration for housing production in practice.

4. SYNTHESIS OF CASE STUDY RESULTS AND REVIEWS

It is important to establish linkages between land administration and housing in practice to be able to effectively contextualise the relationships. One of the ways to do this is to understand the different components of housing production and situate land administration within this context. The assessment will then reveal the gaps and provide insights to improving the integrated link.

4.1 Understanding land as a component of housing production process

In practice, it is acknowledged that housing production process varies from country to country; though, it generally follows a common pattern (UN-HABITAT, 2010). As classified by Okpala and Aniekwu (1988), housing production processes include: project conception, project design (including land preparation), and project construction. In a more developed country like Australia, it includes marketing and sale. Following from this and for better understanding, the processes of producing housing is categorised into four phases (Figure 3): conception and design, land preparation, construction and marketing (Agunbiade *et al.*, 2013). For the purpose of this discussion, the focus is on land preparation.

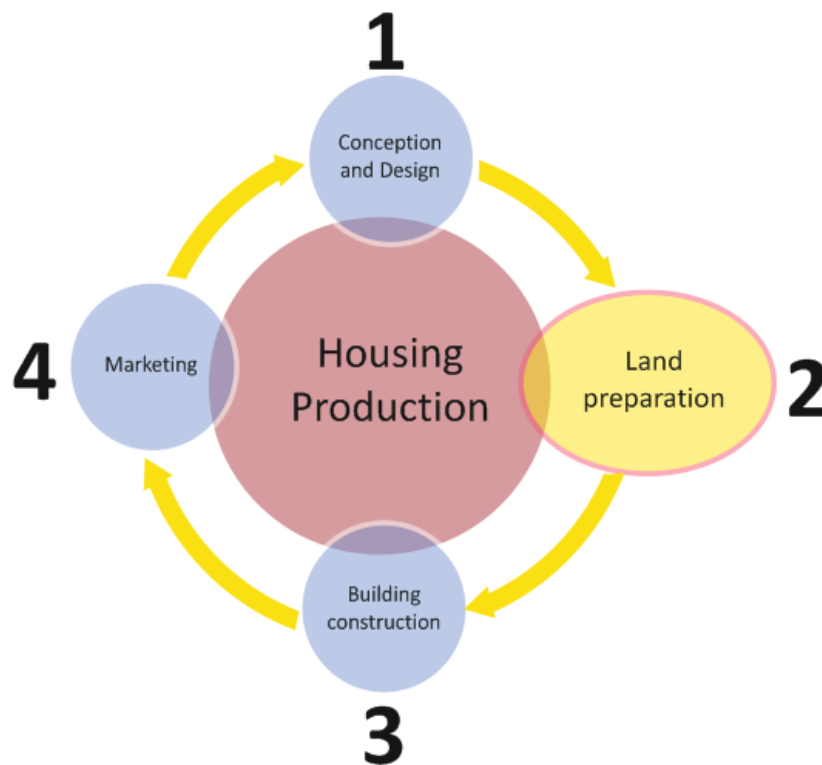


Figure 3: Illustrating housing production processes with a focus on land preparation

4.1.1 Land preparation

All the stages and the activities of making land available for housing production is aptly described here as land preparation. These include: land acquisition and the procurement of development approval through determination of ownership and use rights. The responsibility to facilitate this in Nigeria and Australia, like in most countries, is laid on the land administration authorities. These authorities in the study areas include: land registry, Valuer General and the municipal councils. These authorities oversee the land administration functions of land tenure, land value (land market), land use and land development (land use management).

The generic land preparation stages are dependent on the prevailing land administration processes. The stages, in a formal setting, start from the identification and designation of new land that has potential for residential development. This is followed by the administrative and legal procedures to change the previous use to residential. The third stage involves the determination of infrastructure levies and the detailed structure planning. The statutory subdivision, issues of title, major civil work and servicing of allotment follow. The final stage is the development and dwelling construction.

All the processes and stages stated here are contextually situated within the overall arrangement that supports or impairs the linked processes of land administration which determines the ownership and development rights. In an informal setting, peculiar to Nigeria, where significant number of parcels are not registered with the authorities; the process is a little challenging.

As observed through the case study areas land preparation essentially focuses on two broad issues: determination and records of ownership rights, and the grant of development rights. The efficiency and effectiveness of determining these two rights vary significantly between Nigeria and Australia, given the differences in the levels of land administration development. Essentially, land tenure systems are found to impact land values which ultimately affect the dynamics of land market. In a similar way, land use and land development impact land use management.

For most of the time, however, these interrelationships are not fully understood, as a consequence of either being managed by different agencies or as a direct consequence of being ignored altogether. To put this in proper perspective, the situations in Victoria, Australia, and Lagos, Nigeria are further explored.

4.1.2 Linked process of land administration (Victoria - Australia)

As derived from the synthesis of responses through the open-end questions within the on-line survey conducted, the level of development of the title registration in Australia allows an ordered system and a linked arrangement between ownership rights and the determination of development rights. In this regard, it is almost impossible to build without ownership firmly secured and

registered as well as the development rights granted. It was however observed that the interplay of the land valuation, taxes, charges, stamp duty on land transfer and most importantly, in Victoria, the Growth Areas Infrastructure Contribution all affect how land is brought forward for development. For example, by paying GAIC, the land developers transfer the burden to the respective builders. As a result there has been noticeable and continuous increase in the land component as a proportion of total cost to build and the overall implications for the organisation of housing production.

With regard to land use planning, local council makes the most of the planning decisions in Victoria. This is usually structured within the overall state, municipal and local planning policy frameworks. However, through the insights offered by the open end questions, the process was generally not efficient as a result of inherent delays and the overall tangible and intangible cost associated. Also of concern is the problem of integrating required datasets to make informed decisions and to assess council performance.

It was also observed that there were limited interactions between agencies responsible for the land administration functions. The present level of integration regarding policy considerations suggests some level of *cooperation* among agencies but with little of *coordination*. Regarding this, agencies have inherent intentions to benefit from one another. However, most of the agencies operate essentially with no formal rules, minimal resources, independent power, and not too clear policy goals. It could be inferred from the respondents that, more time and energy is required to get the agencies to interact more efficiently.

The current level of inter relationships among agencies that deal with land tenure, land value, land use, and land development assessment processes were all found to influence land delivery and the organisation of housing in Australia. These are important contextual consideration for land management and housing production.

4.1.3 *Linked process of land administration (Lagos - Nigeria)*

Land ownership and development assessment processes in Nigeria generally, and Lagos in particular, are determined by the means through which land is procured for housing development. Land tenure system, in Nigeria, is governed by the National Land Policy, which is directly linked with the 1978 Land Use Act. Through this Act, land in all the states of Nigeria is vested in the governor of each respective state. In practice, this arrangement runs parallel with the existing customary land holding. Consequently, access to land for housing production in Nigerian major cities at present is available through two sources, formal and informal (traditional land-owners and their representatives).

Given these paralleled and sometimes conflicting arrangement, it is practically difficult to conceive a scenario where it is easy to secure development rights. This leaves more to desire regarding linked processes for land management. As noted by some of the respondents, the additional burden

imposed by the requirements for proper documentation, in the case of land acquired through the traditional land-owners and their representatives is not limited to financial cost but are also found to include all the bureaucratic procedures which most times slow the process and reduce the flow of developable land. In addition, there is high level of uncertainties associated with fulfilling the requirements for obtaining the title documents. This is directly associated with the actual land procurement procedures that is largely through informal sector. All these usually make transactions cost (procedural) in the informal sector higher than the formal sector. As could be inferred from the responses, the nature of land acquisition and the legal requirements to obtain development approval have significantly shaped the housing industry in Nigeria. Currently, there are inadequate data on the annual output of developable land in Lagos.

While this is not a comparative study, it is important to highlight the main characteristics of the two cases to provide contextual insights into the two directional links between ownership right, the procurement of development rights, through land registration and land use management.

4.2 An overview of key characteristics of the two cases

As exemplified in the two case studies, it could be inferred that land delivery systems substantially impaired housing development with varying intensities. For example, land ownership structure presents serious problems for strategic planning to guide and control land use, with serious implications for the types of developers that could engage in housing development in Nigeria. This was observed to have effects on the overall housing output and urban structure.

In addition, there were associated problems of determining land value by government, either for the purpose of tax or for determining compensation for compulsory land acquisition. The lack of strategic land use planning and contentious land holding and ownership strategies provide a clear recipe for chaotic statutory planning and a tortuous planning permit process.

Parts of the challenges also include:

- i). Problems in obtaining title documents that are usually a prerequisite for planning application.
- ii). Inadequate consideration for local peculiarity especially regarding location and the prevailing tenure practices. Most people in the informal sector found, requirement for securing development right rather offensive and an undue imposition.
- iii). It was also observed that the autonomous (informal) builders are burdened with additional responsibilities, yet they have the least capacity to cope; most especially the requirement to provide documentation that is mostly not in existence. As outlined by Egbu et al. (2008) the tortuous processes involve 32 stages to secure development approval by any individual developer/builder that procures land through the traditional land holding families. The implications are: unprecedented level of informal and slum development resulting to overwhelming organic urban form. However, for a titled site and services site through land

services of lands and survey departments, the stages are reduced to only 13 stages (Stages 19-32).

Thus, for most autonomous builders (about 80% of the population), a considerable level of expense is incurred in getting through the process. The situation is mediated by political and organisational arrangements that shape the understanding of what the people think about land and the social meaning attached to it. As an example, land in Nigeria, is generally seen as a deity, it belongs to the living and the dead. However, the introduction of the commoditisation of land in the early to mid-1900s witnessed the amalgam of customary practices and the imposed legal registration of land. Thus, people have different understanding of its administration. This influences the type of rights and the way land could be utilised and the processes for a grant of development right.

The continual migration from rural to urban areas, triggered by the expectations of better life, later put pressures on the available developable land and altered the people-to-land relationship. In responding to the challenges of getting developable land have inspired most people to devise several ingenious strategies of dealing with the prevailing situation. These challenges are further compounded by the inability to facilitate effective inter-agency integration, thus leading to series of institution problems. As observed, where there were conscious attempts to interact, it was generally based on few rules and no clearly defined goal.

More specifically, there were issues around data storage and maintenance, most especially that some agencies were attempting to convert paper and analogue data to digital. One of the issues in this regard, concerned the institutional, managerial and technical skills, and not the technology requirements in terms of hardware or software.

Based on the above situation, it was suggested by the respondents that government should direct more resources and energy and develop the capacity of their agencies, especially in the improvement of managerial and technical skills. In addition, there were views that legislative arrangements for better interaction are necessary. Some of the respondents were of the view that the system is too loose and unstructured, the situation they considered not favourable to promote inter-agency interactions.

In Australia, the issues of tenure and registration are not problematic. In fact, Australia is one of the few countries that have very good land registration systems. However, similar to the situation in Nigeria, although in varying degree, one of the major challenges is to bring the different land agencies to collaborate and collectively manage land for housing production.

Specifically:

- i). Where there were found to be some level of agreement on a broad strategy, this was not reflected in specific planning measures through development assessment to integrate land
-

- use planning policies.
- ii). There was not just the perception, but the realities of unequal power relations among the different levels of governments.
 - iii). Development assessment processes is greatly impaired with by the levels of third party objections, that allows residents to object development proposal submitted to the local planning offices. This was observed to have far reaching implication to land delivery processes.

In both case study areas, it was observed that land administration role in housing production is continually challenged by the changing people-to-land relationship and the evolving revolution in information technology and the interdependence of these in securing land development rights. This is strongly influenced by modern social changes induced by the challenges of the new world order, especially the agglomeration of population in the urban centres. Also important, from the perspective of world leaders, are considerations for: sustainability objectives (1990s), achieving Millennium Development Goals (2000s), and mitigating consequences of climate change (2010s).

Consistent with the views of (Williamson *et al.*, 2010, Dale and McLaughlin, 1999), cognitive approaches to land vary significantly reflecting the realities of the spectrum of people-to-land relationships as well as their unique social arrangements and technological developments.

By considering the insights in the developed country and of developing country, as revealed through the case studies, it is important to recognise country context in designing a strategy to improve integration across land administration functions. This will put into perspective a range of different strategies in each specific region and in each particular country. People-to-land relationships, as revealed through the case study areas, have significant implications on the linked process of land delivery for housing development. Add to this layer is the issues relating to advancement in information technology and the expectations to take advantage of this improvement to better manage land for housing production. There are clear indications that there is a close relationship between people-to-land relationships and the overall land governance structure, particularly land registration and development assessment.

Given, the insights and perspective of this research, it is argued here, consistent with the previous research works of: (Fernandes, 2002, Home, 2004, Razavi, 2003, Reerink and Gelder, 2010, Royston, 2004, Varley, 2002), that while land titling remains the basis for developing good land market, it is not a sufficient condition to promote productivity, not the least to facilitate improvement in housing production. For, example, Payne and Tehrani (2005:3) argue that there is: ‘... evidence from Asia, Africa and Latin America, which indicates that [titling and registration] has led instead to increases in landlessness, inequalities in land, the accumulation of land by elites and the erosion of user rights for the poorest and most marginal groups’.

Following from the preceding analysis, and the different perspectives, it is important to establish and highlight a more comprehensive link within land administration functions and between land administration and housing production.

4.3 An integrated framework: land administration and housing

By bringing together different theories, concepts and issues initially discussed, a better way of understanding the linked processes of land administration and housing could be derived. Essential aspects are: integration of land administration functions and other components of housing production processes. Given the importance of managing these complex interactions, it is important to conceptually link these together. This is to develop a platform to advance the argument that the integration of land administration functions is important to facilitate improved housing production. The way this plays out is mediated by each country context and is impacted by the way housing production is organised.

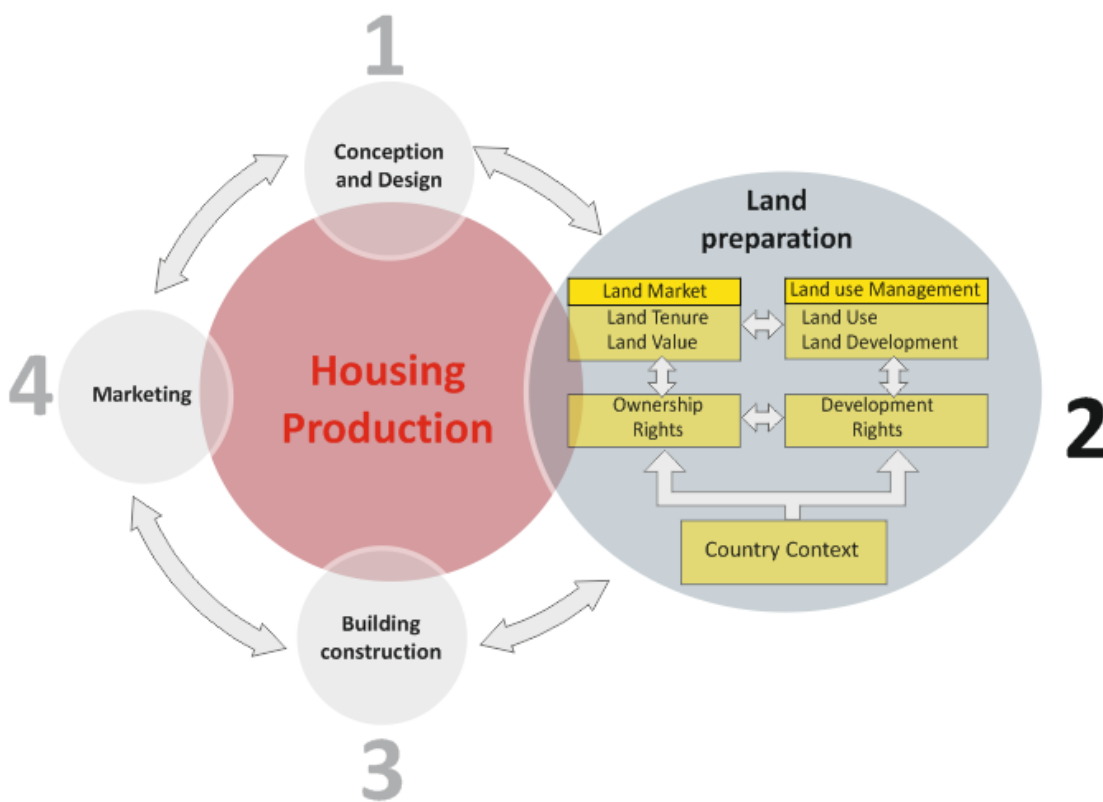


Figure 4: Land administration for housing production: the conceptual link

As presented in figure 4, the conceptual framework is an amalgam of the housing production

processes and the integration of land administration functions. It illustrates how housing production is underpinned by land administration as one of the housing production processes. The framework offers opportunity to explore how land preparation impact housing production. As a chain of activities, housing production could only be efficiently and effectively realised if all the components are properly linked together, in particular, land administration functions.

SUMMARY AND CONCLUSION

Housing production processes have various dimensions and thus requires multi-disciplinary perspective. The review of theoretical issues highlighted different theories and frameworks developed by the different but interrelated fields of political economy, land administration and housing studies. These different viewpoints are utilised to conceptualise how the variables of housing production are related and identifies areas of convergence or overlaps between these disciplines.

Regarding modern theory of land administration, four principal functions: land tenure and land value (grouped as land market) land use and land development (grouped as land use development and management) were identified. The approach used in this research is to go beyond the traditional focus of each of these fields of study and to draw from their perspectives in an integrated way as to facilitate housing production. This is to explore the areas of convergence to investigate the role of land administration in housing production from a broader perspective.

Consequently, the areas of convergence between land administration and housing (*land development*); between land administration and political economy (*land market*); and between political economy and housing (which include the utilisation of *housing production factors*) provide contexts.

This conceptual framework offers a good platform to explore and analyse land administration and housing with a view to improving how land administration services impact housing. This will allow rigorous assessment of governments' implementation strategies on land delivery and how these interactions impact housing production. This approach will also enable a better assessment of the activities of agencies involved in land administration. The research also keeps in mind the external influences such as population, urbanisation, sustainability, and technology in the way a society function to facilitate housing production. The conceptual framework discussed in this paper progresses Augustinus (2010:130) suggestion that: '... there is a need for a new concept of shelter policy, as there is a lack of commonly accepted conceptual frameworks for systematic shelter interventions that work at scale'. The integration of land administration functions (land tenure, land value, land use and land development) is considered one of the important factors to achieve this. It is anticipated that if land administration is well integrated, it will impact positively on the other aspects of housing production: building construction, marketing, concept and design.

Rethinking the Role of Land Administration in Housing Production: a Contemporary Perspective (7977)
Muyiwa Agunbiade (Australia) and Abiodun Kolawole (Nigeria)

FIG Working Week 2016
Recovery from Disaster
Christchurch, New Zealand, May 2–6, 2016

ACKNOWLEDGMENTS

The authors would like to acknowledge the supports provided by the Australian Research Council through a linkage project (*Project ID: LP-099057*) on National Infrastructure for Managing Land Information (NIMLI). This is with the collaboration of the industry partners: Land Victoria, Land and Property Management Authority, New South Wales, Landgate-Western Australia and PSMA. Also acknowledged are the constructive comments from members of Centre for Spatial Data Infrastructure and Land Administration (CSDILA). However, the views presented are those of the authors and not of the project partners.

REFERENCES

- ADAMS, C. D. 2005. *Urban Planning and the Development Process*, London and New York, Routledge.
- AGBOLA, T. 2005. The Housing Debacle. *Inaugural Lecture Delivered at the University of Ibadan*. Ibadan, Nigeria.
- AGUNBIADE, M. 2012. *Land Administration for Housing production*. PhD, The University of Melbourne.
- AGUNBIADE, M., RAJABIFARD, A. & BENNETT, R. 2013. Modes of housing production in developing countries: the contemporary role of land, labour, and capital in Lagos, Nigeria. *Journal of Housing and the Built Environment*, 28, 363-379.
- AUGUSTINUS, C. 2009. Improving Access to Land and Shelter: Land Governance in Support of the MGD: Responding to new Challenges. *In: ENEMARK, S., MCLAREN, R. & MOLEN, P. V. D. (eds.) Word Bank and International Federation of Surveyors Conference*. Washington DC, USA: FIG Publication No 45.
- AUGUSTINUS, C. 2010. Improving Access to Land and Shelter. *In: DEININGER, K., AUGUSTINUS, C., ENEMARK, S., MUNRO-FAURE, I. (ed.) Innovations in Land Rights Recognition, Administration, and Governance*
- BARKER, K. 2006. Barker Review of Land Use Planning. Available: http://www.hm-treasury.gov.uk/media/4EB/AF/barker_finalreport051206.pdf [Accessed 11 November, 2010].
- BEYER, G. H. 1965. *Housing and society* New York, Macmillan.
- BRASH, D. 2008. Introduction to the 4th Annual Demographia International Housing Affordability Survey. Available: http://www.thunderbay.ca/Assets/CEDC/docs/2008_Demographia.pdf [Accessed 4 May, 2011].
- CHESHIRE, P. 2009. Urban Containment, Housing Affordability, Price Stability - Irreconcilable Goals. *SERC POLICY PAPER 4* [Online]. Available: <http://www.sjcapitalgroup.com/publications/Urban%20containment%20housing%20affordability%20and%20price%20stability.pdf> [Accessed Nov 23 2011].
- COX, W. 2011. Housing Constraints, Natural and Regulatory. *Econ Journal Watch*, 8(1), 13-27.
- DALE, P. & MCLAUGHLIN, J. D. 1999. *Land Administration Systems*, Oxford Oxford University
-

Rethinking the Role of Land Administration in Housing Production: a Contemporary Perspective (7977)
Muyiwa Agunbiade (Australia) and Abiodun Kolawole (Nigeria)

FIG Working Week 2016
Recovery from Disaster
Christchurch, New Zealand, May 2–6, 2016

Press.

- DE SOTO, H. 1996. Securing Property Rights: The Foundation of Markets Economic Reform Today. No 1, . Available: http://www.cipe.org/publications/ert/e19/E19_02.pdf.
- DE SOTO, H. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else,*, New York, Basic Books.
- DYE, R. F. & ENGLAND, R. W. 2010. *Assessing the Theory and Practice of Land Value Taxation*, Lincoln Institute of Land Policy.
- EGBU, A. U., OLOMOLAIYE, P. & GAMESON, R. 2008. A neo-institutional economic critique of the system for allocating urban land and development rights in Nigeria. *Habitat International* 32, 212-135.
- ELDER, G. H., JOHNSON, M. K. & CROSNOE, R. 2003. The Life course and aging: Challenges, lessons and new direction. In: SETTERSTTEN (ed.) *Invitation to the life course: Towards a new understanding of later life*. Amityville, N Y: Baywood Publishing.
- ENEMARK, S., WILLIAMSON, I. & WALLACE, J. 2005. Building Modern Land Administration Systems in Developed Economies. *Journal of Spatial Science* 50 (2), 51-68.
- FERNANDES, E. (ed.) 2002. *Providing Security of Land Tenure for the Urban Poor. The Experience of Brazil*, London: Earthscan Publications.
- GIDDENS, A. & PIERSON, C. 2007. Meanings of Methodological Individualism. *Journal of Economic Methodology*, 14, 211-226.
- GOODMAN, R., BUXTON, M., CHHETRI, P., SCHUERER, J., TAYLOR, E. & WOOD, G. 2010a. Planning reforms, Land Release and Supply of Housing. *AHURI RMIT Research Centre*.
- GURRAN, N., RUMING, K. & RANDOLPH, B. 2009. Counting the Costs: Planning Requirements, Infrastructure Contributions and Residential Development in Australia. *AHURI, Sydney Research Centre*.
- HALL, R. E. 1988. Inter Temporal Substitution in Consumption. *Journal of Political Economy*.
- HOME, R. 2004. Land Titling and Urban Development in Developing Countries: The Challenge of Hernando De Soto's *The Mystery of Capital* *Journal of Commonwealth Law and Legal Education*, 2, 73-88.
- KAUFMANN, J. 1999. Future Cadastres: Implications for future land administration systems - bringing the world together? *UN-FIG Conference on Land Tenure and Cadastral Infrastructures for Sustainable Development*. Melbourne, Australia
- KELLY, J. F., WEIDMANN, B. & WALSH, M. 2011. The Housing We'd Choose. . *Grattan Institute Report No. 2011-5 June 2011* [Online]. Available: http://grattan.edu.au/static/files/assets/e62ba29d/090_cities_report_housing_market.pdf.
- MILDNER, G. 2009. Public Policy and Portland's Real Estate Market. *Quarterly and Urban Development Journal* 1-16.
- OKPALA, D. C. & ANIEKWU, A. N. 1988. Causes of high costs of construction in Nigeria. *Journal of Construction Engineering* 114, 233-244.
- OLATUBARA, C. O. 2007. Fundamentals of Housing. In: AGBOLA, T., EGUNJOBI, L. &
-

Rethinking the Role of Land Administration in Housing Production: a Contemporary Perspective (7977)
Muyiwa Agunbiade (Australia) and Abiodun Kolawole (Nigeria)

FIG Working Week 2016
Recovery from Disaster
Christchurch, New Zealand, May 2-6, 2016

- OLATUBARA, C. O. (eds.) *Housing Development and Management: A book of Reading*. Ibadan: Malijoe Softprint.
- OMIRIN, M. M. & NUBI, T. G. 2007. Role of Primary Mortgage Institutions in Housing Delivery. *The Housing Finance International*, 22, 52-56.
- PAYNE, G. & TEHRANI, E. 2005. Between a Rock and a Hard Place - Negotiating a Space for the Poor in Expanding Cities. Available: www.fig.net/commission7/bangkok_2005/.../7_2_tehrani_payne.pdf [Accessed 01 September, 2009].
- RAZAVI, S. (ed.) 2003. *Agrarian Change, Gender and Land Rights*.
- REERINK, G. & GELDER, J. 2010. Land titling, perceived tenure security, and housing consolidation in the kampongs of Bandung, Indonesia. *Habitat International*, 34, 78-85.
- RICARDO, D. 1965. *The Principles of Political Economy and Taxation*, London, Dent.
- ROYSTON, L. (ed.) 2004. *Barking dogs and building bridges: A contribution to making sense of Hernando de Soto's ideas in the South African context*: University of Cape Town Press.
- SCULLY, G. W. 1988. The Institutional Framework and Economic Development. *Journal of Political Economy*, 96, 652-662.
- SILVERSTEIN, M., BENGTSON, V., PUTNEY, N. & GANS, D. (eds.) 2009. *Handbook of Theories of Aging*, New York: Springer Publishing Company.
- SMITH, A. 1976. *An Inquiry into the Nature and Causes of The Wealth of Nations*, Chicago, University of Chicago Press.
- UN-HABITAT. 2008. Secure land Rights for all.
- UN-HABITAT 2010. *A Practical Guide For Conducting: Housing Profiles-Supporting Evidence-Based Housing Policy and Reform UNON*, Nairobi, Publishing Services Section.
- UN COMMITTEE ON ECONOMIC SOCIAL AND CULTURAL RIGHTS (CESCR). 1991. General Comment No. 4: The Right to Adequate Housing (Art. 11 (1) of the Covenant). Available: <http://www.unhcr.org/refworld/docid/47a7079a1.html> [Accessed 11 September 2010].
- UN ECE. 2005. Land Administration in The UNECE Region Development Trends and Main Principles. Economic Commission for Europe Geneva. Available: <http://www.unece.org/env/documents/2005/wpla/ECE-HBP-140-e.pdf>
- UNDP. 2009. Human Development Index based on 2007 Data. Available: http://hdr.undp.org/en/media/HDR_2009_EN_Complete.pdf [Accessed 10 March, 2010].
- UNITED NATIONS 2009. The right to adequate housing. Geneva: United Nations.
- VARLEY, A. 2002. Private or Public: Debating the Meaning of Tenure Legalization. *International Journal of Urban and Regional Research*, 25, 449-461.
- WATSON, M. & HAY, C. 2003. The discourse of globalisation and the logic of no alternative rendering the contingent necessary of the political of new labour. *Policy and Politics* 31, 289-305.
- WATSON, V. 2002. The Usefulness of Normative Planning Theories in the context of Sub-Saharan Africa. *Planning Theory*, 1, 27-52.
-

Rethinking the Role of Land Administration in Housing Production: a Contemporary Perspective (7977)
 Muyiwa Agunbiade (Australia) and Abiodun Kolawole (Nigeria)

FIG Working Week 2016
 Recovery from Disaster
 Christchurch, New Zealand, May 2–6, 2016

- WEBER, M. 1958. *The Protestant Ethic and the Spirit of Capitalism*, New York, Charles Scribner's Sons.
- WILLIAMSON, I. 2008. Using Cadastres to Support Sustainable Development. *Spanish IX National Congress of Surveying Engineers TOP-CART 2008* Valencia, Spain
- WILLIAMSON, I., ENEMARK, S., WALLACE, J. & RAJABIFARD, A. 2010. *Land Administration for Sustainable Development*, California. USA, ESRI Press.
- WILLIAMSON, I. P. 2001. Land Administration 'Best Practice' Providing the Infrastructure for Land Policy Implementation *Journal of Land Use Policy*, 18, 297-307.

BIOGRAPHICAL NOTES

Muyiwa Elijah AGUNBIADE obtained his B.Sc in Urban and Regional Planning (URP) from Obefemi Awolowo University, Ile-Ife, Nigeria. He holds double Master's degrees in Geographic Information Systems (GIS) and URP both at, University of Ibadan, Nigeria. He recently completed a Ph.D. in Infrastructure Engineering, from University of Melbourne. He presently lectures Urban and Regional Planning at the University of Lagos, Nigeria. His research focuses on spatial data infrastructure and Land Administration, with particular interest in Housing Production.

Abiodun Olagunju KOLAWOLE obtained his HND in Surveying and Geo Informatics from The Federal Polytechnic Ado Ekiti and Post Graduate Diploma in Surveying and Geo Informatics from Nnamdi Azikwe University Awka, in Anambra State, Nigeria. He holds his Master's degree in Surveying and Geo Informatics from University of Nigeria, Enugu campus and he is currently a Ph.D. candidate of Surveying and Geo Informatics at University of Nigeria Nsukka, Enugu campus. He lectures Surveying at the Federal Polytechnic Ilaro, Nigeria.

CONTACTS

Dr. Muyiwa Elijah AGUNBIADE; Abiodun Olagunju KOLAWOLE
University of Lagos Akoka-Yaba, Lagos; Federal Polytechnic Ilaro, Ogun State, Nigeria
Tel. + 2348107313133;
Email: meamsept@yahoo.com; magunbiade@unilag.edu.au; abitopus@gmail.com
Web site: www.unilag.edu.ng

Rethinking the Role of Land Administration in Housing Production: a Contemporary Perspective (7977)
Muyiwa Agunbiade (Australia) and Abiodun Kolawole (Nigeria)

FIG Working Week 2016
Recovery from Disaster
Christchurch, New Zealand, May 2–6, 2016