

Chapter 4: Land Administration for Housing Production

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Overview

The integration of land administration processes and the collaboration of land agencies are considered essential for the effective delivery of developable land for housing production. However, in most countries, housing and land management policies are usually split between multiple government agencies. The background literature suggests that the activities of governments' agencies that perform these functions are disparate and lack harmonisation. The lack of integration allows land administration agencies to operate according to their internal norms and functions. As a result, policy responses are inevitably disjointed – across and between different levels of government. This is considered more pronounced in federated countries than other systems of government.

This chapter presents the interrelationship across land administration functions (land tenure/registration, land value, land use and land development) and between different levels of government in the management and delivery of land for housing production. It *aims* to develop and evaluate a *Land Administration Integration Framework for Housing* (LAIFH) to improve inter-agency collaboration. The *methods* include the use of a case study approach. It focuses on federated case countries of Nigeria and Australia.

This study is framed within the proposition that the inadequate integration across land administration functions and between different levels of government impedes land delivery for housing production. The proposition is not to assume that inter-agency integration is linear and unproblematic, or that it is the only problem impeding housing production. The research is contextualised and aligned closely to the perspective of Puonti (2004), that the necessary starting point for the analysis of inter-agency integration:

'...is not [just] to take collaboration between authorities as a fact or an ideal model to strive for, but rather to study it as a learning process with tensions and difficulties as well as insights and innovations.'

From this perspective, collaboration between agencies responsible for land administration is not seen as an end but rather a means of facilitating efficiency and effectiveness of policies, processes, and spatial data infrastructures development among agencies.

Aim

This research investigates the inter-agency integration as it affects the delivery of land for housing production. The aim was to develop and evaluate a 'LAIFH' to improve inter-agency integration across land administration functions and between different levels of government.

Through:

- development of inter-agency integration assessment framework to measure and compare the depth of integration across land administration functions and breadth of integration between levels of government
- development of strategies to improve integration.

Justification

One of the requirements for appropriate policies and right decision making, in the context of spatial data infrastructures and land administration, is the reliance on collaborative interactions within and between jurisdictions (McDougall, 2006; Warnest, 2005). Given the importance of managing these complex interactions, it is argued in this research that the integration of land administration functions is significantly important to facilitate improved housing production

Several factors are important to necessitate a significant shift from the traditional *silo*-based approach to an integrated management of land. These factors are drivers for collaboration among land agencies. They are considered to include, in addition to the technical considerations, issues of global, national, political, environmental and social interests.

Within the context of national land information infrastructure land administration for housing production, the following drivers were identified:

- simplification of the land development process for national businesses
- aiding spatial planning and infrastructure decisions for all tiers of government
- considerations for 'social inclusion'
- enablement of national land administration information
- developing parameters for 'building information'

- Whole of Government (WoG) Approach in monitoring city growth
- population as a global and national driver of housing demand and supply
- Integration of land administration functions in the context of housing affordability.

Contributions to knowledge

The research develops: a conceptual framework that provides a comprehensive approach to understanding the relationship between land administration and housing production.

It is important to establish the link between land administration and housing production. This involves bringing together different theories, concepts and issues initially discussed. Within the context of how housing production is organised, land preparation is a major component. Essential aspects are: land policies, land administration and spatial data infrastructure. Given the importance of managing these complex interactions, it is argued in this thesis that the integration of land administration functions is significantly important to facilitate improved housing production.

The way this plays out is mediated by each country context and impacted how housing production is organised. Figure 1 illustrates the two directional links between land administration and housing production.

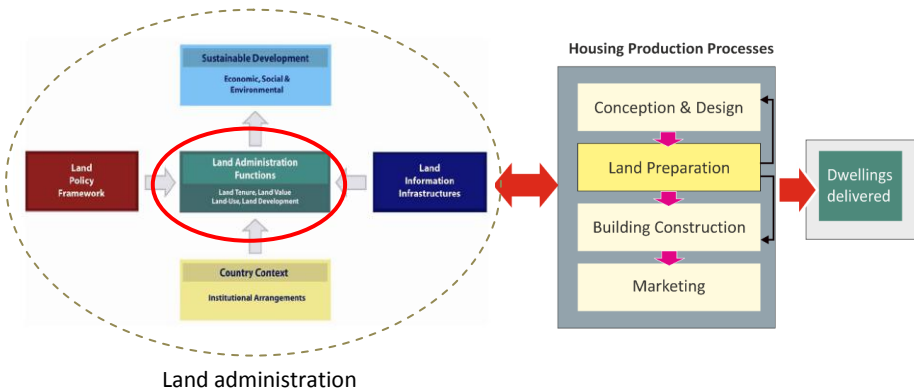


Figure 1: Land administration for housing production: The conceptual framework

The interactive link between land administration and housing production is an amalgam of the housing production processes and the land management paradigm. It illustrates how housing production is

underpinned by land administration as the core of land management paradigm and as the gateway to sustainable development. At the same time, the framework offers opportunity to explore how housing production processes provide context for understanding land management.

The study also developed an Inter-agency Integration Assessment Framework (IIAF) in the context of housing production to assess levels of integration. The parameters for the development of the IIAF were identified from different past studies. This is in parallel with the structured interviews conducted. These include:

Table 1: Land Administration integration parameters: aggregation of themes

Integration Assessment Parameters	Sources
Data creation: collection format	Dasgupta (2010); Participants interviewed
Data coordination and information flow	Williamson et al. (2010); Participants interviewed
Storage and Maintenance of data	Participants interviewed
Technology and technical issues	Williamson et al. (2010); Participants interviewed
Data services funding/pricing model	Richard and Tsiopoulos (1996); Participants interviewed
Spatial datasets dissemination and use	Onsrud and Rushton (1995), Participants interviewed
Economic considerations	Bryson et al. (2006)
Environmental considerations	Blair et al. (2003)
Social considerations	McGuirk (2008)
Communication between agencies	Darlington and Feeney (2008); Drabble (2007); Spath et al. (2008)
Public participation	Arnstein (1969)
Organisational structure	Bryson et al.. (2006); Bolland and Wilson (1994)
Commitments and responsibility	Agranoff and McGuire (2003)

Resources of the agencies	Keast et al. (2004), Participants interviewed
Dispute resolutions	Bryson et al. (2006); Participants interviewed
Capacity building	Rajabifard (2006); Masum (2011)

By adopting Social Network Analysis (SNA) and Paired Samples (T-Test), this study uses the IIAF developed to determine the levels of integration among agencies responsible for land administration. The approach allows graphical representation of the levels of integration among the agencies. By using Structural Equation Model with Partial-Least Square, as adopted tools, it was possible to verify the reliability of the assessment framework.

The findings, through the application of IIAF, show that the optimal level of inter-agency integration varies from one organisation to the other. This reflects the priority and the interest of each organisation. In this regard, the highest level, as conceived in the integration assessment framework, does not necessarily correspond to the optimal level desired by the agencies. This suggests that the assessment framework should be treated as a continuum.

Finally, the research developed a Land Administration Integration Framework for Housing (LAIFH) as strategy to improve inter-agency integration. The development of the IIAF is underpinned by the Conceptual Framework and was also based on the observed level of inter-agency interactions, relative to what was desired by the agencies. This is necessary to promote better integration of stakeholders required to deliver developable land for housing production

The LAIFH includes the development of a collaborative process. It also considers the contextual factors that affect ownership rights and a linked process for determining development rights. The link between the collaborative process and the contextual factor analyses is what is required to support efficient land delivery. The demonstrators: *housing development potential analysis and visualisation*, and the *analysis of development assessment approval* provide context for the application and evaluation of the integration framework.

Conclusion

Research investigations and empirical studies throughout this research demonstrated interrelated and complex range of inter-agency integration issues affecting land delivery for housing production. The focus, however, has been to improve inter-agency interaction to facilitate linked processes of ownership and development rights.

The key conclusion of the study is that policies are not sufficiently informed by evidence and that due to a disconnect between agencies, policies formulated do not stimulate integrated processes among land agencies and that the processes do not sufficiently drive the type of data that is collected.

Recommendation

It is thus *recommended* that managing land for housing production should follow the principles of evidence-informed policy, policy-based processes and process-driven data.

Future direction

Further research is suggested for other case study areas. This is to provide improve understanding of the *causal link* between variables of inter-agency interactions and the efficiency of the land delivery for housing production. This is in addition to developing indexes, by focusing on the contributions of land management, to measure housing outcomes: sustainability, affordability, liveability, and productivities.

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