Good Governance and Sustainability in Residential Land Administration in Muscat, Oman

Toward Institutional Reform and Basic Monitoring

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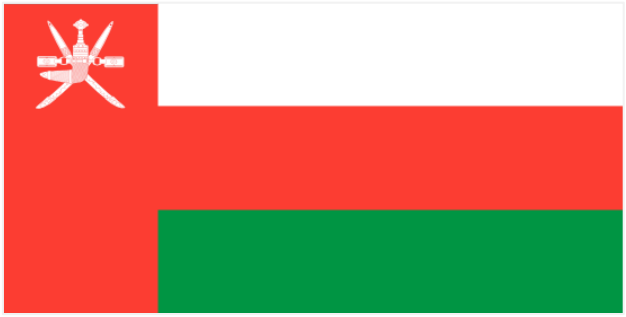

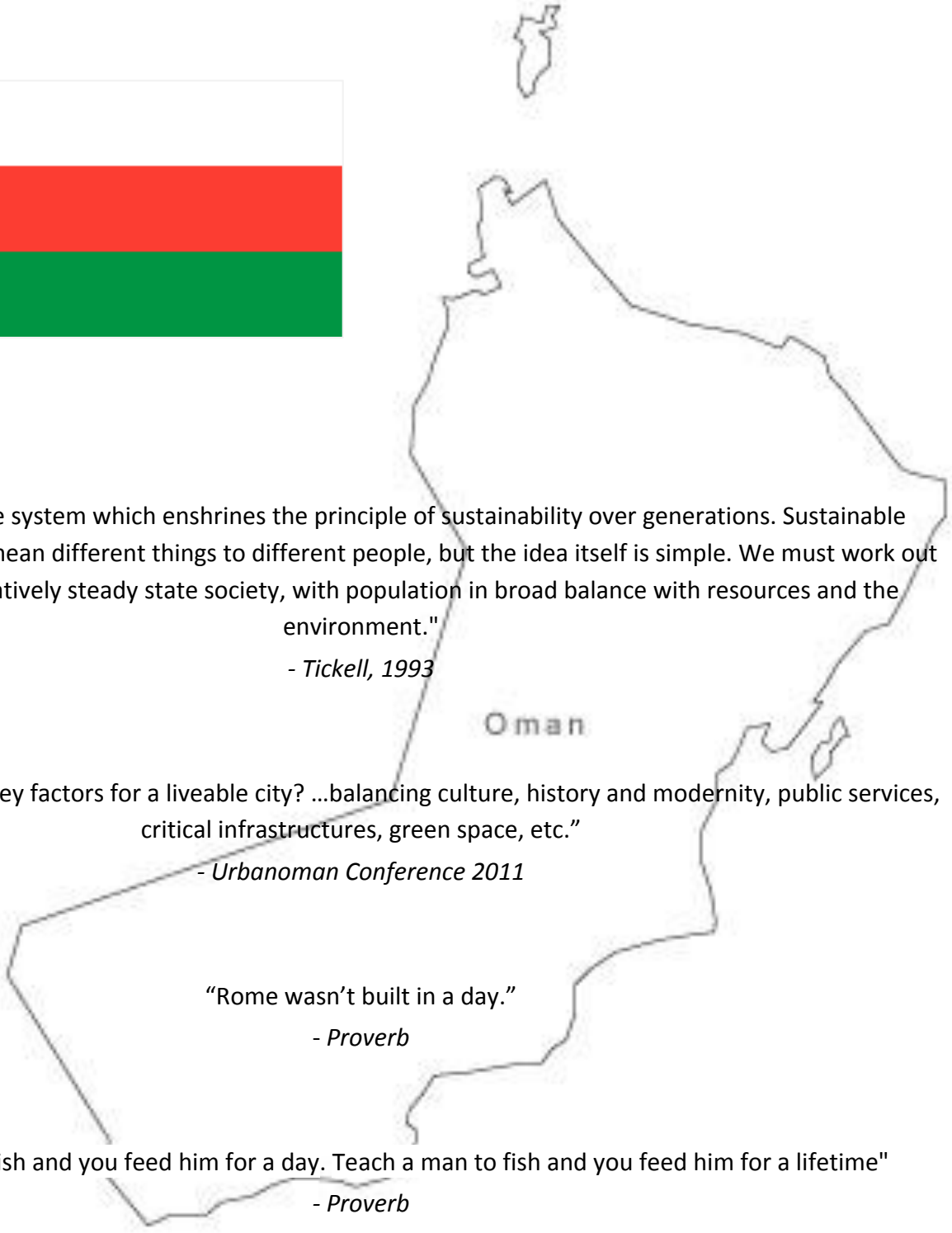

"We need a value system which enshrines the principle of sustainability over generations. Sustainable development may mean different things to different people, but the idea itself is simple. We must work out models for a relatively steady state society, with population in broad balance with resources and the environment."

- Tickell, 1993

"What are the real key factors for a liveable city? …balancing culture, history and modernity, public services, critical infrastructures, green space, etc."

- Urbanoman Conference 2011

"Rome wasn't built in a day."

- Proverb

"Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime"

- Proverb

(Source: mapresources.com and mapedia.com)

STATEMENT OF AUTHENTICITY OF MATERIAL

This thesis contains no material which has been accepted for the award of any other degree or diploma in any institution and to the best of my knowledge and belief, the research contains no material previously published or written by another person, except where due reference has been made in the text of the thesis.

Samuel F. Soloman

Berlin, the 3rd of February 2013

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To my mother, who nurtured my affinity for learning and who took pride (and found endearing ways of embarrassing me) for my modest accomplishment, and my father who instilled in me a value for being intentional and purpose-driven, and a sense of justice and right-doing.

– –

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Also, thanks to…

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He Who guards me, guides me and watches over me at all times.

PREFACE

The research undertaken in this thesis stemmed from an invitation from one of our guest lectures in the Urban Management course. Dr. Sonja Nebel, Principal Investigator, offer our class an opportunity to join an urban development project to study the phenomenon of land management in Muscat, Oman. The projected, named "Toward Sustainable Urban Patterns", is a research study through the German University of Technology (GUtech) campus in Oman and The Research Council (TRC), the agency that serves as the formal conduit for research in the Sultanate.

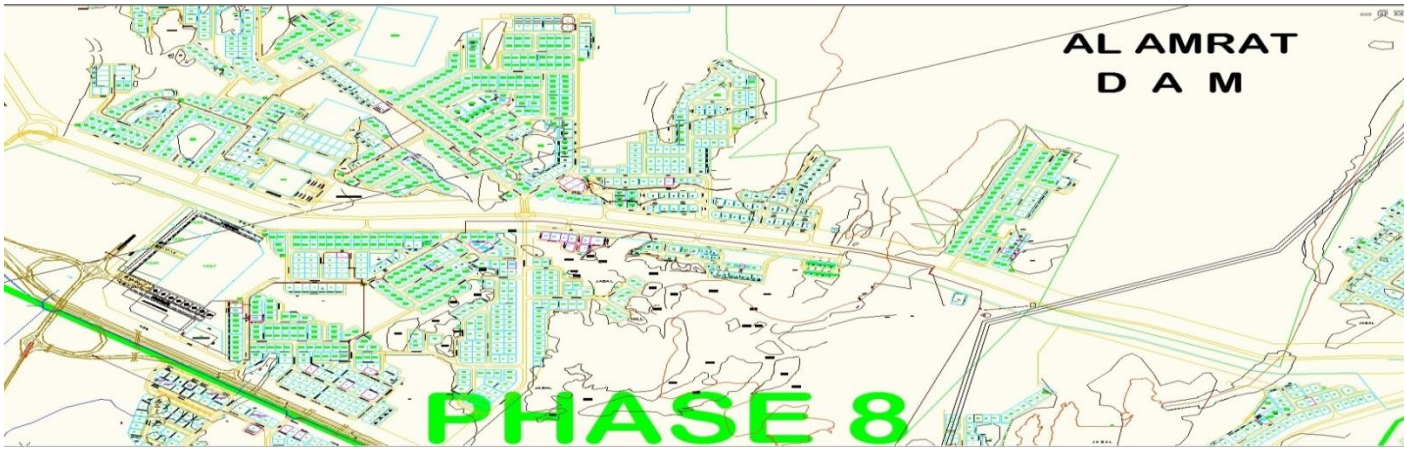
The opportunity to travel and do research in a country I knew little about was alluring. Having recently conducted an academic project in Nepal with our master program, and in coordination with the GIZ, if felt I had a basis of experience to conduct qualitative research in a foreign context. Also, having recently completed an assignment on land administration with Dr. Wehrmann, I was compelled to delve further into this topic, which was relatively new to me.

Despite a relatively short period for data collection—seven weeks altogether—and several logistic challenges to get settled into Muscat, conducting the interviews was relatively facile. It took some detective work to track down contacts at the various agencies, but once found all but one made themselves readily available to meet. The interviews were very insightful, and interviewees very forthcoming. The degree of disclosure and general elaboration on the subject matter was beyond what I expected, especially since some revelations could be considered sensitive and critical. All in all, this provided a sense that my qualitative research was elucidatory and would gather facts that could be relevant to Oman's planning sector.

In the discourse about sustainable planning, it was interesting to discover that land administration in Oman is taking place without a strategic plan. Having previously visited Cairo, Amman, Damascus and Beirut, Oman's capital seemed to have been planned in a much more coordinated manner, so it was presumed a broad plan was in effect. The take home message from most ministerial and municipal officials was that until strategic planning was arrived upon sustainability would remain only a notion occupying in the spheres of rhetorical discourse. I, however, challenge this line of thinking. It is precisely at the point of drawing up national strategies that the concept of sustainability should be most present. For this reason, this thesis has been an important endeavor to me, personally.

In all, this thesis has expanded vastly my knowledge on the subject of land administration. It has fortified my advocacy for sustainable development and participatory planning. I hold a stronger stance for urban management to be a medium by which planning serves society's holistic needs, with emphasis being placed on quality of life and stewardship for our precious environment. It is my aspiration that the work I have undertaken will help to promote that in Muscat and serve as a learning block for my continued work in the field of 'good' planning.

Newly constructed villas in Fanja, Oman (Source: author)



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ACRONYMS, ABBREVIATIONS AND ENGLISH-ARABIC TRANSLATIONS

List of Abbreviations

FESLM	Framework for Evaluating Sustainable Land Management
GGC	Gulf Country Collaborative
GLG	Good Land Governance
GUtech	German University of Technology
HM	His Majesty
LGAF	Land Governance Assessment Framework
MENA	Middle East and North Africa
MM	Muscat Municipality
MoH	Ministry of Housing (Oman)
ONSS	Oman National Spatial Strategy
RLA	Residential Land Administration
PEFA	Public Expenditure and Financial Accountability standard
SLM	Sustainable Land Management
TRC	The Research Council
UN-HABITAT	United Nation Human Settlement Programme

Translation of Arabic Terms

Estidama	'sustainability'
Fareej	'neighborhood'
Krookie	a land record document
Mulk(aya)	'title(ship)'
Shuras	'council'
Wadi	'valley'
Wilayats	'districts'

1. INDRODUCTION

1.1 TOPIC

The Sultanate of Oman has been undergoing rapid urban expansion since the 1970s mainly due to exogenous forces, both national and global, responding to its shift to a petroleum-driven economy. The population growth due to urban growth has been a result of classic rural to urban migration, as well as international migration for work-related opportunities—clear examples of endogenous forces also at play. The high rate of urbanization has set up a pattern for unsustainable growth and city development that needs to be better studied and strategically addressed, especially in light of national interests, visions and foreseeable futures.

Current land management in the Muscat region has lent to patchy, disorganized sprawl. While some land planning has come into play starting in the mid-1990s, there is little in the way of guidelines for coordinated land management that meets recognized standards for sustainable growth. The lack of formal strategic approaches toward land management contributes to an array of broader societal issues related to equity, health, ecology and economic development. There has been a call to establish national spatial strategies by 2014, but considerable progress has not been made. To compound the issue, the state has not been able to meet the emerging need for infrastructure and services caused by the continuing urban expansion. This sets an imperative for the formulation of land policy and the establishment of administrative capacity to govern and manage land for the Sultanate in a manner that is well-though out, forward visioning and rooted in sustainability and good governance.

This thesis addresses the topic of residential land administration in Muscat. This sector is explored relative to institutional capacities for good land governance and social and spatial sustainability.

1.2 RATIONALE FOR STUDY

Further investigation on growth and development in the MENA region is justifiably needed. Rapid development has been possible due to the immense wealth of the Gulf Country Collaborative (GCC) countries in the region. However, this development has not been coupled with a path for sustainable growth in any country in the region (BTI, 2012). In the case of Oman, the Sultanate has been undergoing rapid urban expansion since the 1970s due to national and global exogenous forces responding to its shift to an oil-based economy. The urban growth has been a result of classic rural to urban migration, international migration for work-related opportunities and rising birth rates. The increase in urbanization has set up a pattern for unsustainable growth. Thus, city development needs to be further studied to provide foundations for strategic planning toward matters of national interests and visions, especially with regard to foreseeable potentials and risks that belay the region in general.

Current land management in the Muscat region has lent to disorganized sprawl, which is often described as 'patchy'. Though land planning efforts were amplified in the mid-1990s, there is presently little in the way of guidelines for coordinated land management. The lack of strategic planning has led to project work that is case by case, often resulting in conflicts of interest and the need for correctional measures such as mediation, expropriation or compensation. Furthermore, with planning in such a nascent state and without long-term projection, no attention has been placed on meeting recognized standards for sustainability. Outdated, or altogether lacking, land management apparatuses contribute to an array of broader societal issues related to equity, health, ecology and economic development. There has been a call to establish national spatial strategies by 2014, but considerable progress has not been made [as of time of publication, an inquiry is currently in place with Consatt, an Austrian consultancy group that won the international bid to develop the Oman National Spatial Strategy (ONSS)]. To compound the issue, the state has not been able to meet the emerging need for infrastructure and services demanded by continual urban expansion. This produces a necessity for the reformulation of land policy and the improvement of administrative capacity to govern and manage land for the Sultanate in a manner that is well-thought out, forward visioning and rooted in *estidama* ('sustainability' in Arabic) and good governance (Serageldin, 2012, p. 160).

This study focuses on development pertaining to the land administration sector. This particular focus was selected because of its multifaceted impact on many areas of general society. Establishing improved paradigms in land administration and its overall governance has a trickle-down effect on economic, environmental and social issues. A specific focus will be placed on residential land administration because of its core role in the provision of housing, which in turn substantiates quality of life—housing provides a form of shelter and security; cultural identity; spatiality for general well-being, familial habitation and social interaction; sense of community; and, asset wealth for land owners and inhabitants in general. Effective policies are needed to set forth a framework of governance that counters uncoordinated planning measures. Directing and managing the process of urban growth through effective land management, planning and tenure systems can set in motion a process for coordinated growth to counter the current development approach, which is "piecemeal", patchy and contributes to urban sprawling (Serageldin, 2012). Adapting a land management approached based on concepts of sustainability will serve to ensure residential plots are distributed in a manner that maximizes the fulfillment of their intended use. All developing countries face the challenge to provide sustainable housing that is affordable. This issue should be addressed sooner than later, especially in light of the increasing rate of urbanization.

There are also several circumstantial reasons for taking on this research. They include foreseeable changes in urban growth, economic output and environment impact. The continuous urban expansion that has risen due to urban population growth is outpacing the capacity for effective planning and development. There is a real need for the creation of national spatial strategy to establish growth guidelines and planning instruments that direct how adequate infrastructure and services can be laid down in a sustainable fashion. This would help

subvert the risk for the growing urbanization of poverty, which is not uncommon to the MENA region and could arise in the current planning schema if the national economy were to decline (Zimmermann, 2011). Expected changes in the national economy serve as a factor. As Oman aims to shift from a petroleum-based economy (presently 40% of GDP) to a service-based one (in which the oil sector represents only 9% of GDP), it will have to consider its available resources and their longevity (CIA, 2012). It is estimated that the Sultanate's oil reserves may be depleted within the next 20 years, which leaves authorities and planners in the position of looking at dwindling national coffers for subsidizing housing, energy, food and water in the mid-term future (Serageldin, 2012). Current efforts are in place to shift the economy to other sectors including tourism, port-related enterprises, private sector development and the cultivation of industries around other natural resources. However, the targets are ambitious and the necessary time needed to make adequate shifts in economic outputs may not be available.

Lastly, there are several sociological reasons for addressing this research topic that extend into health and well-being, culture and heritage, and ecology. Present day planning has put great emphasis on the habitual use of automobiles which has caused a heightening of the sedentary lifestyle and "nutrition transition" and their related negative health implications (Indicators of Sustainable Development, 2001). The environment has come under duress of urban growth. Land degradation correlated to population growth, desertification and the increasing scarcity of water puts strain on the land and its inhabitants. Additionally, population growth and modernization has triggered a spike in energy consumption and air pollution; GCC countries hold several positions for the highest producers of CO2 per capita in the world. In addition to ecological detriments, social justice issues are at risk. General issues may include the growth of urban poverty, lack of affordable housing, land tenure conflicts, and, in extreme cases, issues of unequal civil rights and human trafficking (BTI, 2012; Zimmermann, 2011). Lastly, the social 'ecosystem' within a city is directly related to social structures, characteristics and qualities of community (Golubchikov & Badyina, 2012). The dimensions for residential land use cannot be addressed separately; rather their holistic interrelation should be attended. Overall, it can be argued that good governance in the land sector will contribute to reform that improves upon socioeconomic, ecologic, and human rights development (Zimmermann, 2011).

There is strong rationale for conducting this study. On a theoretical level, the establishment of good governance practices would convey greater accountability and inclusiveness within the Omani planning context. These issues are prevalent within theoretical discourse and will be expanded upon the literature review. Furthermore, reforming capacities and institutional processes for land administration would establish a foundation for a presently lacking system for comprehensive and strategic development planning in Oman. This will help to contribute analysis to the present gap in adapting best practices, experience and insight throughout the MENA region. Focus will be placed on identifying areas for institutional reform toward improved good governance and sustainable land management. Additionally, a basic framework will be presented to establish relevant, context-based indicators that may contribute to a structured monitoring process within town planning. Introducing assessment from a 'bottom up' angle conceives to provide a

mechanism for better identifying objectives relevant to inhabitants and bolstering institutional capacity to meet them.

Generating reform in the land sectors does not come without its challenges. It requires a transitional 'milieu' with a shift in mentality and an appreciation for change that calls for dedicated leadership and administrative units for re-establishing the rule of law, collaboration across the spectrum of stakeholders including civilians, and incentives that counter the inclination to maintain the status quo (Zimmermann, 2011). With little in the way of study on governance related to land management in Muscat, Oman, this thesis aims to encapsulate the perspective, experience and strategies (i.e. 'grey literature') tacitly retained by agencies and their staff, and to establish recommendations for effective institutional reform in the Muscat land administration sector.

1.3 RESEARCH OBJECTIVES

The objective of this dissertation is to compare theoretical principles, criteria and best practices for good governance and sustainable land management to current residential land administration (policy, management, and implementation) in Muscat, Oman. To fulfill this overarching objective, some sub objectives have been set out:

- Review the residential land administration law and practices in Muscat and present an overview of the system
- Analyze residential land administration for its adherence to good governance and sustainability concepts and propose recommendations for improvement
- Present a basis for developing social and spatial indicators specific to the Omani context that may help to contribute to the monitoring of residential land administration in Muscat

The researcher's rationale is to develop an effective feedback loop to influence decision-making regarding policy and administrative practice. A more coherent monitoring process will have the benefit of bringing good governance and sustainability to the foreground in the planning sector and nurturing beneficial reform incrementally. Recommendations for relevant institutional reform are the primary objective that is being sought throughout this study. As a secondary objective, the researcher aims to provide a basis for participatory monitoring focused on the assessment of inhabitant needs. The hypothesis supposes that the establishment of core indicators—in this case, social and spatial indicators—provide a foundation for making qualitative and quantitative measures of sustainability and overall good land governance for the Governorate of Muscat. The development of specific indicators is beyond the scope of this study, but as a side to the study of institutional reform an initial exploration of social and spatial dimensions for citizen housing needs will be presented. This survey of resident expectations may serve as a catalyst for the establishment of valid social and spatial indicators in Muscat—these may be extended also to monitoring in other municipalities in Oman

or for global assessment. Overall, this will contribute to empirical literature on sustainable land management in Oman and the MENA region.

1.4 RESEARCH QUESTIONS

The initial step in any research is the formulation of a specific and concise scientific area of inquiry. The topic of land management was narrowed to a focus on residential land administration. Also, while the entirety of Sultanate of Oman was initially proposed as the study area, the boundaries was limited to the Muscat Governorate to make the research reasonable to conduct and the scope of the findings more relevant. Thusly, the area of research is framed as: good governance and sustainability in residential land administration in Muscat, Oman.

Box 1 – Summary of Research Objectives

Area of Research
Good Governance and Sustainability in Residential Land Administration in Muscat, Oman

Broad Questions

- How does current residential land administration sustain the expressed social and spatial needs of residents in Muscat?
- What concepts and practices of good land governance and sustainable land management are currently expressed in residential land administration in Muscat?
- What good land governance practices would contribute to greater social and spatial sustainable land management in Muscat?
- What social and spatial factors related to housing provision should be developed and/or used as indicators that further could be developed and/or used to monitor basic good land governance and sustainability (social and spatial) in Muscat?

Primary Research Question

How does current residential land administration sustain the expressed social and spatial needs of residents in Muscat, Oman?

Focus of Research

- Analysis of governmental (top down) housing provision in Muscat, Oman
- Analysis of citizens' basic social and spatial housing needs in Muscat, Oman

Areas for Exploration

- Review policies and practices within the land administration system specific to (residential) plot distribution
- Review theoretical basis and best practices for good land governance and sustainable land management

Specifically, the research aims to review the residential land administration process in Muscat for two important theoretical concepts: good governance and sustainability. Broad questions around the objective arise: How does land administration in Muscat uphold those concepts specifically? As good governance and sustainability center server as drivers toward citizen needs and expectations, how does the land system fulfill the specific needs of Muscat residents? In what ways can land administration be improved to meet those needs through governance and sustainability standards? Because the dimensions of these questions are broad, the scope of the study again is narrowed to consider factors that relate to social and spatial housing needs. The primary research questions can be stated thusly:

How does current residential land administration sustain the expressed social and spatial needs of residents in Muscat, Oman?

To address the primary research question, three focused areas of exploration have been set. First, the regulatory policies and institutional processes—those specifically related to residential lands and social and spatial dimensions—will be analyzed relative to good land governance and sustainable land management frameworks. Second, the needs of Muscat residents will be reviewed at the very access point to land provision: the residential plot distribution. A review will be made to provide an overview of this land allocation process and to compare citizen needs with the current manner of provision. Lastly, a process for discovery will be undertaken to propose solutions from various stakeholder and experts on these topics. Triangulation of varying, relevant perspectives—especially the difference in perspective between those making and receiving housing provision in the top down process—should prove an effective method to answer the primary question of this study and to provide a basis for worthwhile recommendations for reform.

1.5 METHODOLOGY

1.5.1 Introduction

The research undertaken in this thesis stemmed from an invitation to participate in an urban development project in Oman related to land governance. The projected, named Toward Sustainable Urban Patterns, is a research study through the German University of Technology (GUtech) campus in Oman and The Research Council (TRC), the agency that serves as the formal conduit for research in the Sultanate.

As a part of the TRC-granted project, this academic study aims to provide qualitative findings via research methods that are well-established and recognized throughout the social science arena. The nature of project calls eliciting information from Muscat officials and local experts, thus quantitative research was not considered for this thesis. Most importantly, a strategic scientific approach is undertaken to ensure that the research iss systematic, the data collection is relevant and well-documented and the best techniques are exercised throughout.

1.5.2 Techniques

The nature of this study called for a more formal methodological approach. Formal interviews conducted in a semi-structured manner serviced as the primary technique throughout this study. Informal surveying was an additional technique applied to a minor extension of the focal research query. Lastly, direct observation contributed to the overall qualitative assessment.

Semi-structured interviews

A semi-structured interview approach falls within the spectrum of data collection between the poles of 'unstructured' observation and 'structured' closed-end questionnaire (Newton, 2010). Based on guidelines within *Qualitative Communication Research Methods*, 'informant/respondent interviews' were conducted (as opposed to ethnographic interviews, which took place organically but were not officially documented within this thesis. Conducting interviews in a manner where the interviewee is an 'informant' was necessary since a set of questions was pre-determined for the Toward Sustainable Urban Patterns project in which this thesis plays a part (see Appendix F). Interviewees were also considered as 'respondents'. The pre-determined questions were augmented with nondirective tour questions that were developed specifically for the research focus of this study (e.g., tour, structural and emergent idea questions, as suggested by Lindlof and Taylor) (2010). By this fashion, open-ended responses helped arrive at general interview goals identified by Lazarsfeld (1944), such as the elucidation of concepts and opinions, determination of motivational influences over actions and mentalities, and understanding of patterns (Lindlof & Taylor, 2010). In all, combining 'informant' and 'respondent' interview approaches helped to achieve the dual goal of ascertaining specific information, as well as individual attitudes and perceptions, regarding governance and sustainability with in Muscat residential land management.

Targeted information from land administrators and experts was sought to fulfill the overall project objectives. To make the data collection comprehensive for this academic investigation, contact was further made with members of civil society and citizens owning or applying for residential land. A detailed interview schedule was developed to systematize the coordination of 24 interviews with the myriad stakeholders (see Appendix E). The short duration of the visit to Muscat (6 weeks) required persistence and tenacity on part of the researcher to seek out participants and set up interviews. On a daily basis, phone and email contact was made and meetings were successfully arranged for 16 candidates, representing all agencies except for those at the government-run utilities because they could not be reached. Additional outreach to private sector actors and additional plot owner/applicants would have been undertaken if more time had been available.

It is important to mention some specific factors that shaped the nature of the interview process and its outcomes. All interviews were conducted in-person, generally during Omani business hours at the worksite of the expert interviewees. Though the official language in Oman is Arabic, and the researcher has a basis in the

language from his upbringing, the interviews were conducted in English because it was the researcher's dominant language and the experts demonstrated strong proficiency in the language. In all cases, Arabic was use for clarification purposes. In one particular case, the interview was conducted in Arabic with a plot owner who did not speak English; an interpreter was enlisted to ensure appropriate translation of some points of lacking clarity. Key to the interview process was the using effective techniques for establishing good rapport. Some of these strategies included adapting customary practices for expressing deference, respecting the local constructs related to time, and the use of friendly repartee to demonstrate camaraderie and intension for authentic person connection. Lindlof and Taylor suggest that effective qualitative interview that provides "the same sense of connection… as an intimate conversation [with a friend]" helps to elicit greater detail that is more earnest within the inquiry (2010).

In-person interviewing has several advantages for eliciting qualitative data collection. The capacity to establish good rapport is highly influenced by merely being in the presence of others. Making the acquaintance of experts in-person, having a basis of credential through TU Berlin and GUtech, and even being Middle Eastern by descent helped pave the way for good rapport with each expert.

To capture each interview a smartphone was used as a digital recording apparatus. Each recording was transcribed within no more than two days and saved. Listening back to the recordings provided an opportunity for self-critique regarding the researcher's style and contributed to the improvement of subsequent interview sessions.

Basic surveying

In the second half of this study, an additional area of exploration became apparent. Prudence was taken so as not to stretch the research beyond its scope or objective, but a small tangential course for discovery was developed to explore 'bottom up' basic monitoring in the residential land sector. Initially, a focus group seemed to be an appropriate vehicle to collect information from several land owners/applicants at once. But due to limitations in times and capacity for adequate outreach, a survey was developed in lieu. The surveying task aimed to draw out relevant social and spatial issues related to housing provision. To elicit information in a nondirective manner open-ended survey questions were needed. Consultation with an experienced survey developer provided advice and critical feedback about the use of a survey to collect open-ended responses; so many questions were converted to more concise closed questions to simply the questionnaire in the hopes of ameliorate the response rate.

The survey was developed through an online survey tool (Google Forms) and disseminated by email to four professors at GUtech who had agreed to disseminate the survey link to their currently-enrolled students. Though the sample group is relatively narrow, it was justified to conduct the survey as a pilot by which a more refined survey instrument could be developed at a later time. They survey questions are available within the Appendix (see Appendix G).

Direct observation

Direct observation was an additional methodological technique employed in this investigation. The value in being in Oman for six weeks to conduct the data collection for this study is noteworthy. Being in Muscat provided the opportunity for a first-hand experience to see land management reflected in the environment. Travel to residential developments sites such as Al Amrat, Fanja, The Wave, Al Ghobrah, Madina Sultan Qaboos, Mutrah, etc. provided a means to make observational (i.e., visual) comparisons between 'patchy' plot distribution sites, integrated tourism complexes, customary housing areas and contemporary neighborhoods.

Direct observation played a role in personal interactions, as well. Working vis-à-vis with individuals at GUtech, officials in the land administration agencies and experts throughout the capital allowed for a more intimate understanding of issues in Muscat land administration. Being closer to research project, figuratively and literally, offered opportunities to fine tune course of the query and better take advantage of the 'snowball effect' that commonly arises in these sorts of studies. Additionally, similar to how rapport-building is an advantage of personal interface during interviews, direct observation during the interviews allowed for the observation of the reactions of interviewees (i.e., points of misunderstanding could be clarified, or sensitivities with certain topics could be appropriately handled). This form of direct observation permits the gathering of nuances and details that may otherwise go unobserved (Lindlof & Taylor, 2010).

As mentioned, some ethnographic interview-style discussions occurred naturally in casual settings over the discourse of plot applications and the use of acquire land. Though these informal conversations were not officially adapted into findings of this thesis, they do provide a foundation for some of the direct observations and qualitative assessments make on part of the researcher.

Many of the direct observations made throughout the course of this investigation were recorded. A main notebook was kept for jot details as they presented themselves. Also, digital notes were maintained by computer and a basic preliminary thesis journal ("blog") was maintained online.

1.5.3 Strategic approach toward research

As with any project, a strategic approach needed to be created to provide a skeleton upon which the study can develop. The methodological framework set forth for this study provides a regimen for effectively managing the project by establishing a 'roadmap' for exploration with specific parameters (and boundary limitations), as well as a time line to keep the research within feasible scope.

The methodology for conducting this thesis study has been divided into six steps that will be presented in the following section. Step 1 involved getting informed about general issues of land governance in Oman. Dr. Nebel, the primary investigator and project leader, made two presentations regarding present-day development in Oman. She also introduced two of her colleagues who contributed input based on their own research, personal knowledge and experience with Oman.

Following the initial introductory phase, the research topic was defined and the scope of the project was determined. As previously discussed in the research question section, setting limitations helped to keep the study effectively on target and maintain scientific relevance. The scope was defined for: 1) the focus area, whereas land governance was limited to residential land administration; 2) the geographical area, whereas the study would be confined to the Muscat Governorate; and 3) the duration of investigation; whereas the researcher would have five to six weeks to travel to Oman for primary data collection. It is important to mention that placing limitations on a study is a two-sided coin. While limiting the scope of research lends to achievability and reliability of the findings, it may also limit the time needed to capture necessary information to provide irrefutable results. For example, best practices in research methodology recommend allocating three to four months for data collection, which is more than twice as much as was afforded in this study (Deininger, et al., 2012). As with any project and sociological study, however, balances must be struck and deadlines met. A time line was developed and regularly revisited to ensure the effective management of time throughout the study and to help transition between steps.

Guidelines for research data collection methodology were also sought. Qualitative *Communication Research Methods* (Lindlof & Taylor, 2010) and *The Ethnographic Interview* (Spradley, 1979) were referenced to guide the interview techniques used throughout this research project. Additionally, experienced survey developers were consulted when creating the online questionnaire for plot owners.

Step 3 entailed the review of guidelines and best practices for researching this topic. The *Framework for Evaluating Sustainable Land Management (FESLM)* article on assessing sustainable land management provided experience-based advice for fellow researchers of sustainable land management (SLM), including notes on Hierarch Theory (Smyth & Dumanski, 1993). The Land Governance Assessment Framework (LGAF) document provided a "diagnostic tool" which included: establishing a research duration of 3-5 months (unlike the 2-3 weeks standard set out by PEFA); utilizing a "country coordinator" for less subjective results; grouping dimensions into set of 10 topics; seeking expert firsthand knowledge and experience; and including a participatory dimension in the study. The advice presented in the literature and guiding documents was augmented with counsel from academic advisors to this thesis. Advisor input has been important in shaping the research objectives, the methodology, as well as the analysis of findings for this study.

In the next step, the methodology was developed into a matrix for visual representation (see Appendix A). The preliminary preparation involved assembling the 'key ingredients for the recipe', including creating a database of key data sources, including stakeholders (for primary data collection) and a comprehensive list of relevant literature and background information (for secondary data collection). In depth review included background information (i.e., the researcher read country and city profiles, regional and national facts and history, and vision documents and policy on land management). Furthermore, literature related to the topic of good land governance, sustainable land management and Arab housing typology were reviewed in detail. Following the document and literature review, primary data was collected mainly through the vehicle of in person

interviews. As the study progressed, the researcher decided to develop an electronic survey to capture further primary data. (As a note, the survey was implemented beyond the allocated time for data collection, and thus, under the advisors' guidance, the responses will not be analyzed for this study; instead, the survey instrument will be refined as a model for further research on citizen housing needs and expectations.)

Based on the data collected, a stakeholder inventory was made to delineate the roles and relationships of the myriad actors. Additionally, the interview data was triangulated to help identify and prioritize the points interviewees provided in their responses. The collective feedback was compared to the collected secondary data (e.g., the standards for good land governance and sustainable land management) to provide a secondary analysis of firsthand information with documented information and theoretically-based standards. Finally, data collected from direct observation in the field by the researcher was also gathered and incorporated.

Step 4 concluded with the summarization of research findings and the development of relevant recommendations. Steps 5 and 6 pertained to the final stages of documenting the overall research process and report write-up and presentation for academic review. A bulleted outline of the entire methodological process is provided to simplify its review in Appendix A. The methodology matrix here provides a visual presentation:

Methodology Matrix – Objectives, Methodology, Analysis and Outcomes

OBJECTIVES	Research area: Governance and Sustainability within Residential Land Administration in Muscat, Oman			
	Research focus: Analysis of government housing provision (top down process) and citizen housing needs (bottom up assessment)			
	Primary research questions: **How does current residential land administration sustain the expressed social and spatial needs of residents in Muscat?**			
DSCV	Theoretical basis & context for residential land	Discovery of residential land administration (RLA) process in Muscat, Oman *(top down provision of*		Discovery of resident needs for housing provision in Muscat, Oman
METHODOLOGY	Literature Review	Laws, policy and procedure for residential land administration	Document Review [2°data, qualitative]	Omani housing typology specifically spatial needs based on tradition and historical influences
	GCC region modern history, development and planning		Basic Law of State (Oman)	Document Review [2°data, qualitative]
	Good governance related to residential land administration		Royal Decrees	Scholz
	Sustainable land management specifically related to social and spatial factors for residential land		Policy and procedures	Maqbool
	Residential housing typology specifically related to social and spatial sustainability (i.e., 'traditional' and 'contemporary' cultural or relational needs)	Institutions involved in residential land administration	Interviews [1°data]	UAE traditional typologies
			Supreme Council	Needs and expectations for present-day housing typology and residential land administration process
			Ministry of Housing	Interviews [1°data, qualitative]
			Municipality (Muscat)	Plot owners who have built
			Government-operated utility and service companies	Plot owners who have not built
		NGO and private sector expertise regarding RLA	Real estate broker	Needs and expectations for future housing typology and residential land administration process
			Architecture firm owner	Electronic survey [1°data, qualitative]
			NGO/consultants	Prospective plot applicants
ANALYSIS	Comparison of documented and practiced RLA process	Comparison of good governance standards with RLA processes	Comparison of social and spatial SLM standards with RLA processes	Determine priorities and challenges for residents related to housing provision and RLA processes
OUTCOMES	Review of residential land administration process	Recommendations for good governance for residential land administration	Recommendations for social and spatial sustainability for residential land administration	Indicators for monitoring social and spatial sustainability in Muscat
	Indicators for monitoring good governance in residential land administration in Muscat, Oman			
Areas for continued research and analysis				Overview of housing provisions made from 2008 – 2012
				Comparison of top down housing provision with bottom up resident social and spatial needs
				Comparison of 'traditional' residential needs and typology requirements with 'contemporary'

1.6 OUTCOMES

This study set out specific outcomes. Overall, a broad and comprehensive review of the legal framework and administrative process around residential plot distribution was set as a goal. Based on the organization and analysis of this information, a main target outcome was the presentation of recommendations for institutional reform toward improved residential land administration and need-based housing provision. Specifically, recommendations for reform are aimed at improving good governance practices and social and spatial sustainability.

As the study progressed, the researcher took on an additional objective to establish a basis for 'bottom-up' housing assessment. The outcome was to produce a survey for plot owners that would help determine issues relevant to land ownership and housing needs (along social and spatial dimensions) that could serve as a basis for developing indicators for monitoring in the future.

Overall, the goals set out to provide an overview of residential land, recommendations for reform and a basic start to monitoring. These outcomes are summarized below.

Box 3 – Expected Outcomes of Research

- Review of residential land administration (RLA) regulation and plot distribution process
- Recommendations for good governance for residential land administration
- Recommendations for social and spatial sustainability for residential land administration
- An electronic survey for determining social and spatial factors that may serve as:
    - Indicators for monitoring social and spatial sustainability in residential land administration
    - Indicators for monitoring good governance in residential land administration
- New avenues for exploring sustainable land management and for studying RLA and housing provision requirements

(Source: http://upload.wikimedia.org/wikipedia/commons/7/73/Muscat_Oman.jpg)

2. LITERATURE REVIEW

2.1 GOOD LAND GOVERNANCE

2.1.1 General Overview of Good Land Governance (GLG)

Introduction: process and actors

The emergence of the concept of governance as an overarching paradigm has shaped the field of planning by its broader inclusion of actors and widening understanding of those actors' relationships and agency. While institutions of government have played traditional roles of power and politics in the planning sector, the concept of governance stretches the involvement and responsibility to that of informal actors who constitute the customary members of the private sector, civil society and citizenry. Land governance, thusly, becomes the process by which all members of a society who are impacted by decisions play a role in the decisions-making regarding land access, use, security of tenure and conflict reconciliation (Wehrmann, 2012). Governance of land requires the consideration of traditional and statutory processes, and must also look ahead to visionary aspirations for sustainability.

Definition of land governance

Box 4 – Land Governance, a working definition

"(Land) governance concerns the rules, processes and structures through which decisions are made about access to land and its use, the manner in which the decisions are implemented and enforced, the way that competing interests in land are managed."

(Palmer, et al., 2009, p. 9)

Principles of good land governance

Beyond the shift toward inclusiveness and accountability in planning processes, the international community has proffered additional conventional wisdom for 'good' governance. This presents the idea that better practices render greater rule of law and social justice measures; these, in turn, contribute to development that serves the public more effectively. Good land governance stems from societal norms and values and thus varies across social identities and cultures.

Box 5 – Principles of Good Land Governance

- Equity
- Accountability
- Transparency
- Effectiveness
- Rule of law and legal security
- Civic engagement
- Subsidiarity
- Security
- Sustainability

(Palmer, et al., 2009)

However, some principles may be more universally applied (see Box 4). Best practices are readily profuse throughout the literature, but examples of those works 'in progress' lack the analysis that would contribute gained experience and insight for effective land management (Zimmermann, 2011).

There is significant discourse around the specific objectives and aims for adopting good land governance. Palmer et al. identify five core priorities. First is diminishing corruption. The economic, political and resource value of land provide for a tendency toward corruption in its management. A primary function of good governance is to establish disincentives and safeguards that curb potential for corruption whether it be on the petty administrative-scale or grand political-scale. Second, the establishment of a formal tenure process needs to reflect equitable security for all persons. Third, agencies and staff must possess the capacity to administer the land sector comprehensively with adequate competency. Fourth, processes for administrative land services need to be efficient and effective. And finally, the management of the land sector must reflect the spirit of sustainability that ensure that land use by today's inhabitants will not be detrimental to its use by future generations (Palmer, et al., 2009). In *Good Land Governance: Reality, Theory and Policies*, several consequences for weak governance have been presented to justify the adoption of good governance (see Box 5). Appropriate measures and accountability need to be in place to fulfill these core governance obligations and to prevent avoidable negative consequences.

Box 6 – Weak governance contributes to:

- Insecurity of tenure
- High transaction costs
- Informal land transactions/informal property market
- Reduced private sector investment
- Land grabbing/illegal transfers of state land
- Limited local revenues
- Land conflicts
- Landlessness and inequitable land distribution
- Social instability, social exclusion and political instability
- Erosion of ethics and standards of behavior
- Unsustainable natural resources management

(Wehrmann, 2012)

2.1.2 Rationale for GLG

Rationale for good land governance

In *Toward Improving Land Governance*, Palmer et al. present a rational case for land governance reform. First and foremost are the myriad facets of societal activities and corresponding challenges upon which land plays a role. The administration of land directly and indirectly impacts issues related to urbanization, economic development, environmental impact, access and demand for natural resources, and even such matters as natural disaster and conflict (Palmer, et al., 2009). The correlation between these issues and land use emphasizes the importance of land governance, and specifically to equitable access to land, sustainable land use, security of tenure and usufruct rights, sustainable land use, processes for dispute and conflict resolution

(Palmer, et al., 2009). The authors put forth a specific argument regarding tenure-related problems and establish that the number and scale of such problems are determined by the qualitative measure of land governance. Similarly, challenges with poverty reduction and economic growth are recognized by the authors as attributes of inequitable land distribution (Palmer, et al., 2009). Land is more than just a mere asset. In addition to economic value as a source of livelihood and social security, it extends a sense of heritage and belonging for communities and individuals (Palmer, et al., 2009). Today it is recognized, including in the work of the State of Arab Cities 2012, that without revision to current land distribution practices, progress toward sustainable and "livable" city development will be limited or compromised (Serageldin, 2012). With this in mind, it is apparent that land is becoming more and more a prevalent issue of governance.

Benefits of good governance in land administration

Land administration processes that adapt good governance practices will regulate matters of land administration with greater efficiency and apply established best standards and technical solutions (Palmer, et al., 2009). Good governance in land administration also plays a vital role to uphold responsibility and prevent or counter the potential for corruption, such as “state capture”. Currently in the MENA region, this case is of particular importance as studies indicate that land sector corruption is on the rise in the wake of recent revolution and instability associated with the Arab Spring (Schechla, 2011). Increased immediacy for establishing consistent processes for monitoring and the capacity for reform are necessary. Examples of such occurrences in Oman have been documented, as in the case of the recent dissolution of the Supreme Council of Town planning, and the dismal of the president of the Muscat Municipality and the Minister of Manpower, on rumors of malpractice and corruption in July 2008 (BTI, 2012).

Box 7 – Benefits of Good Governance in Land Administration

… for economic growth and job opportunity
… for the poor
… for the environment
… for public sector management
… for conflict prevention and resolution
… for individual citizens and society as a whole

(Wehrmann, 2012)

Additional impacts that rationalize land governance reform

Several far-reaching effects of the application of good governance concepts in land administration are discussed by Zimmermann. The broad inclusion of the full spectrum of societal actors establishes cross-sectorial accountability that leads to a form of self-regulating societal audit within land governance. Multifaceted oversight applies a checks-and-balances system on institutional agencies to strengthen their professional capacity and service orientation (Zimmermann, 2011). Thusly, good land governance, in a normative sense, maintains a neutral stance that helps to establish “enabling environments and infrastructure,” which in turn hold the potential for catalyzing periodic reform in the land sector (Zimmermann, 2011). This capacity for reform, both procedurally and within the context of outcomes, is part

of the quality of land governance. Palmer et al. expand on this notion by arguing that the quality of land governance, furthermore, affects the outcome of reforms (2009).

The next section explores the theoretical discourse on good governance as it pertains to land administration. This exploration will lay down the foundation for concepts to good governance that can be applied to the topic within the context of residential land administration, which is taken up by this study.

2.1.3 Key Issues in GLG

Importance of sustainability as a factor of good governance in land administration

Good governance in the land sector matters. As land is a valuable asset for individuals and enterprises, access and tenure to land serves as the foundation for development that ranges from personal sustenance and enrichment to civil progress to ecological balance. Adapting good governance practices can ameliorate land administration, and inversely, lacking good governance holds negative consequences. Eswaran et al. point to the issue of land degradation and the decline in land quality as a substantial loss (2001). The authors correlate the reduction of productivity of land (natural or manmade) to the poor coordination of land quality to land use (Beinroth et al., 1994, in Eswaran et al. 2001). The absence of management processes for monitoring factors that determine rates of degradations, which include those that are biophysical, political and socioeconomic (e.g., land tenure and institutional support), contribute to ineffective pairing of land quality and utility; hence, land degradation and loss of valuable productivity are likely (Eswaran, et al., 2001).

Examples of issues of sustainability in the Omani land management sector

In the context of Oman, several issues pertaining to sustainability arise in the land sector. The focus of this research is devoted to the consideration of social and spatial issues. These include a range of factors such as impacts on social relations, especially family, and land availability, especially as it relates to land use efficiency. The literary discourse also covers a gamut of other issues such as desertification, greenhouse gas emission mitigation, energy and natural resource expenditure that are equally important (see Box 7), but will not be considered further as they are outside the scope of this study.

Box 8 – Key Issues in Land Governance

- Land policy
- State land management
- Land administration
- Customary land administration
- Land use planning
- Land conflict resolution
- Legal frame concerning land issues
- Land reforms
- Access to land in post-disaster and post-conflict situations

(Wehrmann, 2012)

Status of good land governance in MENA/Oman

In MENA, strides have been made in modernizing land administration systems. The literature has prioritized efforts to implement the latest technologies for future smart cities (Urbanoman, 2012). Zimmermann notes that this progress has been primarily technological and less about reforming land policy, broadening participation or improving institutional processes toward a more effective framework for land administration (2011). This points to the need to approach the reform process from other avenues. Recommendations are needed for reforms which build professional capacities and generate enabling environments towards improved land governance (Zimmermann, 2011).

Framework

An effective residential land administration system emerges from a normative governance structure, founded in principles of accountability (corruption-prevention best practices) and participation (communicative behavior theory). These elements require that effective monitoring standards be instilled in order to ensure the effectiveness of land governance. The use of relevant indicators is requisite to monitor land administration efficacy. Indicators must be developed to evaluate important characteristics of good governance, such as degrees of transparency, accountability, equity, participation, simplicity, efficiency and sustainability (Palmer, et al., 2009). Indicators are available throughout the literature on good land governance. For the purpose of this study, a review of established generic indicators was made to determine a basis for their relevance in the Omani context. This is especially important since assessment criteria from external sources tend not to draw on local knowledge, thus imposing generic solutions that do not cater to the context of a specific country. (As part of the findings, Appendix I provides a list of relevant social and spatial issues that suit the context of Oman and will be important to adapt into useful indicators for monitoring.)

2.1.4 Overview of Reform toward GLG

Types of approach for addressing

There are several approaches for addressing reform in the land governance sector. For land reform to take place, it is first critical to acknowledge its possibility and to hold a realistic perspective about its limitation. Foremost, it is important to understand that reform policy must be coupled with an effective reform process, without which many well-intended land policies fail to be implemented. Palmer et al. favor a governance and political economy approach for reform. This perspective constitutes a clear understanding of land issues—primarily the relationship between power and the allocation of resources—and the reform process so as to provide support mechanisms and an enabling context that help bring reform about (2009). Throughout the discourse, it is evident that implementing reform does not come about without due challenges. But it is feasible. It is important not to short change the process, however. In addition to establishing a stable and profitable land administration process, it would be objectionable if it were damaging to the land and lacking in sustainable forethought (Smyth & Dumanski, 1993). An example of this is applying an approach that holistically integrates rural and urban land planning, which, if otherwise separated, would create an artificial divide between the two sectors that would compromise the reform process both conceptually and throughout implementation (Palmer, et al., 2009).

Considering tenure rights in governance reform

The authors have identified several areas of consideration within land management reform. Power struggles with the land sector have long been the norm. Therefore, multiple rights must be considered. Reform policies provide an opportunity to mitigate highly unbalanced competition for land, promoting both greater social justice and greater land productivity for economic development (Palmer, et al., 2009). There is also the matter of the social construct around land tenure. In Oman, the basis of this construct is set by the Sultan, a benevolent ruler, who has determined to distribute his land at low cost to his citizens. By the 1980s, all Omani national men were granted the right to a plot of land by royal decree, and the decree was expanded to include women in November 2008 (Issan & Abdullah, 2010) (Al-Talei, 2010). Land tenure designated by this new land distribution plan, therefore, set up the need for policies regarding rights, responsibilities and restrictions over residential land. Such policies require study and deliberation. The Ministry of Housing, presently serving as the official institution of land tenure, assumes the responsibility to conduct pertinent studies on multi-stakeholders' rights (e.g., rights of women, GCC citizens, non-nationals and citizens at large) to formulate the basis for legality and legitimacy regarding land tenure issues.

Impact of politics on land governance reform

Land governance is inherently related to economics, anthropology, geomatics, urban planning and many other areas. Hence, reform is certainly complex and must extend significant consideration to a myriad of consequential impacts on those various sectors (Deininger, et al., 2012). Particular consideration must be made to how land management naturally lends to political power. The manner in which land management is politicized correlates to the division of authority of varying land administrative agencies, and may significantly contribute to uncoordinated action in cases where political power "and transactional cost" is unbalanced (Deininger, et al., 2012, p. 20). With competing stakes and individuals vying for personal interests, the complexity of governance reform is further compounded:

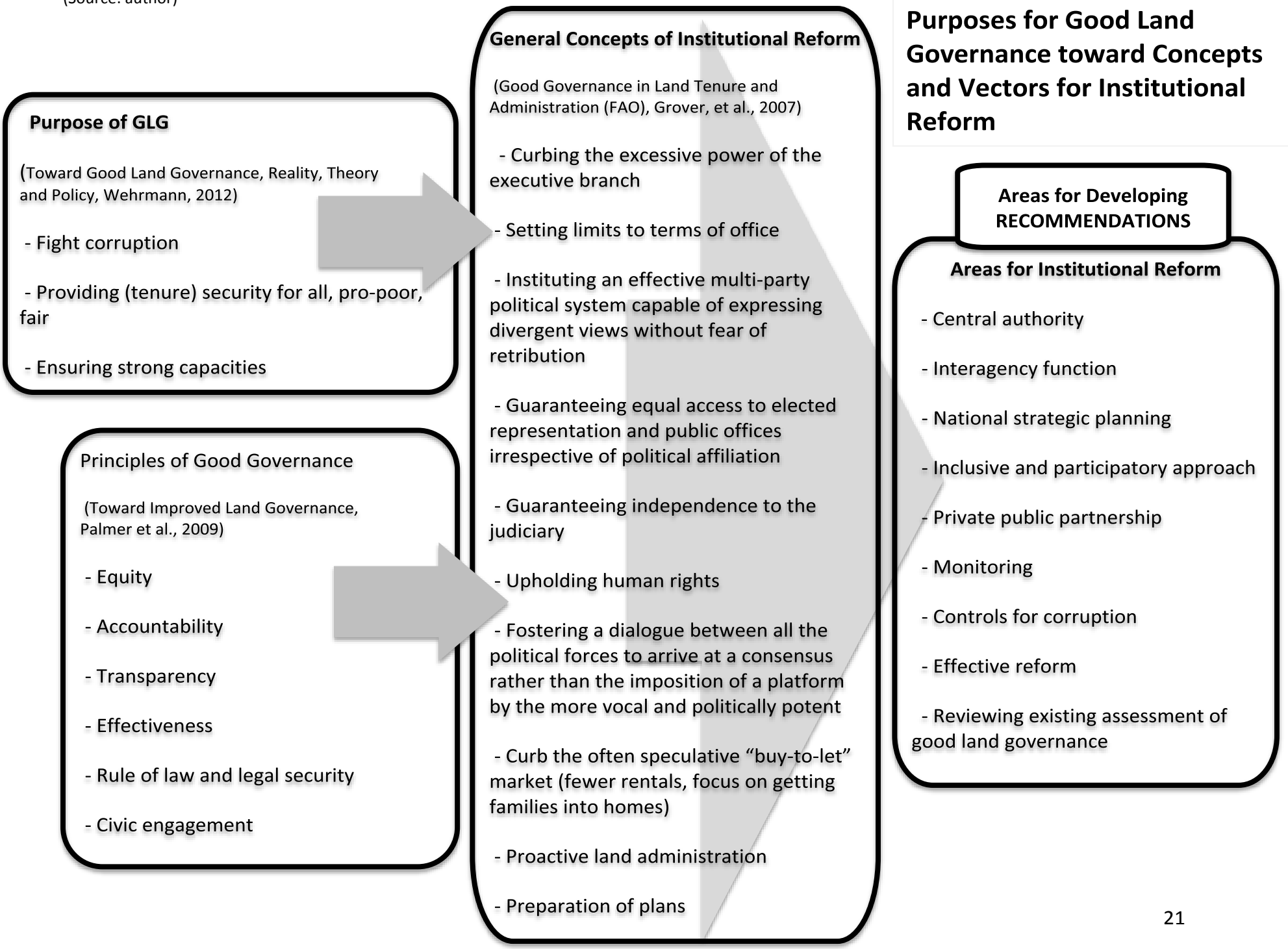
> "Achieving good governance in land is not easy. Policy reforms to strengthen governance require the political will to overcome opposition from those who benefit from non-transparent decision- making and corruption. Improving governance demands the strong commitment of the people involved, and the development of capacity in order to make changes possible." (Palmer, et al., 2009, p. 5)

In summary, there is a strong rationale for adapting good governance into the land administration sector. Sustainability, as a dimension of good land governance, is a key issue to address to integrate the promotion of social, economic and ecologic welfare that derive from effective land use. In the Omani context, social dimension of land use are significant and particular governance challenges exist. Applying theoretical frameworks for reform, especially those pertaining to participation and monitoring, will be of use to manage issues such as the politicization and competition for land.

The literature review will now turn to the second subject of study for this thesis: sustainable land management (SLM). The discourse will tie SLM as an extension of good governance in the following section.

Theoretical Framework for Good Land Governance

(Source: author)



2.2 SUSTAINABLE LAND MANAGEMENT

2.2.1 General Overview of Sustainable Land Management (SLM)

> ***"It is rare that the social, cultural, environmental and economic facets of housing are addressed there in an integrated policy. In many developing contexts, the so-called pro-poor housing programmes often provide accommodation of poor standards, in remote locations, with little consideration to the residents' lifestyle and livelihood strategies. In others, rapid housing developments create amplified carbon footprint and further negative impacts on the environment. Yet in most developing cities, decent and safe housing remains a dream for the majority of the population, while government considers affordable housing as merely a social burden."***
>
> *(Golubchikov & Badyina, 2012, p. 1)*

Emergence of Sustainable Land Management (SLM)

Urbanization is not an uncommon phenomenon. Increasingly in modern times, people are assuming habitation in centers where work opportunities are infused with commerce and amenities for societal living are more concentrated. The organization of residential communities, work spaces, shopping centers, education and health institutions, and social facilities require greater attention to ensure efficient organization. This is especially the case seeing that, for the most part, urban growth and other catalysts of urbanization are irreversible (Zimmermann, 2011). Present day planning calls for urban organization that is in tune with the forces inspiring it and has the potential to endure sufficiently. The idea for sustainable development may be conceived in varying ways, but a common conception emerged following the 1992 Rio "Earth Summit" and the preceding 1987 Brundtland report. These concepts of development set forth an approach that binds economics, ecological, social, and cultural dimensions into an interwoven process (Golubchikov & Badyina, 2012).

Definition of SLM

This "four-dimensional approach" incorporates environmental implications with social, spatial and economic factors. While the emergence of the topic of sustainable land management centered on environmental protection factors for forestry and agriculture lands, its principles have been expanded to all land uses in a more comprehensive context. A model holistic definition is provided by the United Nations Economic Commission for Europe:

> "Land management is the process by which the resources of land are put to good effect. It covers all activities concerned with the management of land as a resource both from an environmental and from an economic perspective. It can include farming, mineral extraction, property and estate management, and the physical planning of towns and the countryside." (United Nations, 1996, p. 13)

This definition captures not only land's value as a precious commodity, but also its myriad uses along environmental, social, cultural and economic dimensions. Sustainable development takes the approach that these dimensions are inextricably interrelated; effective planning must make them all accountable to one another.

Criteria for SLM

Sustainable land management has been discussed widely in current literature and documented best practice. In 1991, the work conducted by the FESLM Working Party in Nairobi set precedent for definitive objectives that are noteworthy to mention because they provide structured 'pillars' for assessment, which include: Productivity; Security; Protection; Viability and Acceptability (see Box 10).

Box 9 – Criteria for SLM: FESLM Working Party, Nairobi

- Maintain or enhance production/services (Productivity)
- Reduce the level of production risk (Security)
- Protect the potential of natural resources and prevent degradation of soil and water quality (Protection)
- Be economically viable (Viability)
- Be socially acceptable (Acceptability)

(Smyth & Dumanski, 1993)

From a bird's eye perspective, these five objectives aim to monitor the state of political, economic and environmental condition, as well as the climate for social justice (Smyth & Dumanski, 1993). They highlight the essential values that provide a framework upon which an effective monitoring effort can be based. The FESLM principles will be applied later in this paper as a foundation for assessing the sustainability of land management in Oman.

The application of standards for SLM in land administration is important. Concepts of (and measures for) sustainability acknowledge the management of natural resources (e.g., timber, mineral, livestock and agriculture); protected areas (e.g., national parks, natural/wildlife preserves and heritage sites) (Indicators of Sustainable Development, 2001); derivatives for economy (e.g., real estate, commercial and industrial development sites); quality of life (e.g., shelter, human development, well-being, community and identity); and other benefits. Specific to social sustainability, Ancell and Thompson-Fawcett (2012) present a specific set of concepts for consideration related to housing: affordability, housing quality, transport, facilities, neighborhood quality and relationship in the community (see 'Theoretical Framework'). While the authors provide a good basis, their model fails to include other important facets from the 2012 UN-Habitat publication on sustainable housing (see 'Theoretical Framework') that should be taken into consideration. Even specific concepts developed primarily for agricultural and food production can prove to be useful, broad guidelines for the analysis of urban sustainability; these include: enhancing production/services, managing risk, preventing degradation, and remaining economically viable and socially acceptable (Smyth & Dumanski, 1993). Jointly, these concepts will be used to establish a theoretical framework for the analysis of residential land administration in Muscat.

2.2.2 Normative Process for SLM

Following the review of acceptable criteria for SLM, the literature review turns now to normative theory related to sustainable land management. The coordination of strategic planning, policy making and service provision for land administration is complex, yet still calls for consideration of measures that promote sustainability.

The authors of *Toward Improving Land Governance* (2009) provide recommendations for such consideration. Institutional structure for land administration should provide an authorized unit to coordinate the overall process. The authors mention the importance for this oversight so as to balance autonomy and efficiency with the potentials of influence and acts of self-interest between multi-stakeholders. Tradeoffs such as drawn out negotiation, difficulties with compromise and greater time requirements must be considered against skewed divisions of power (Palmer, et al., 2009).

As the process of governance is complex, it is important to have it documented and enforceable. The gathering and archiving of background information provides a traceable basis for common understanding, capacity-building and a mechanism for adapting the process to change as needed. To note, part of the tasking undertaken in this thesis has been to establish a concise outline of the residential land distribution process in Muscat. The aim is to provide a useful outcome that contributes to the promotion of sustainable land management in Oman.

The land management process should be inclusive. Beyond the usual decision-makers, the various stakeholders that often go unheard must be brought into the dialogue and discussion process. Countries will vary in their degree of comfort with grassroots involvement, but broadening the debate to all corners of territory and to all members of society provides perspective that more accurately reflects general societal need. This is especially the case with historically underrepresented members of the community. Provisions need to be made to elicit the participation of specific groups that have been minimalized or who traditionally have not had adequate representation.

> ***"The concept of sustainability includes notions of limits to resource availability, environmental impact, economic viability, biodiversity and social justice."***
>
> *(Dumanski et al., 1991; Harmsen and Kelly, 1992)*

The recommendations for normative land policy include two final points. The realities of politics cannot be circumvented. Understanding political positions can help inspire transparency and diminish trust breaking ploys. Also, acknowledging the often competing interests, wills and negotiation stances that take place within political arenas will help to advance discourse to action. Guidelines for monitoring sustainable land management call for the exploration of the political economic

dimensions of land and power relationships (Palmer, et al., 2009). The framework for assessing these issues will be further examined in the section related to SLM monitoring guidelines.

As an ultimate objective and final recommendation, action can be guided. Developing an action plan aligns visions, capacities, competing interests and common objectives toward identifiable steps for an effective process in land management that is suitable to its context (adapted from "How to develop a pro-poor land policy" UN-HABITAT, 2007) (Palmer, et al., 2009).

> ***"Housing as social structure – residence- based activities, their character, social qualities, and their socio-economic interactions in space with the immediate communities and wider society. Through both of these functions, housing represents a system of social and material relationships, which is simultaneously arranged at the different spatial scales (homes, surrounding neighbourhoods, settlements, regions, countries) and which, therefore, requires a corresponding hierarchy of policy interventions."***
>
> *(Golubchikov & Badyina, 2012, p. 4)*

2.2.3 Key Issues in MENA Related to SLM

Literature on MENA identifies a key issue in the region being the relation between rapid urbanization and land administration. Presently about two-thirds of MENA's population live in urban spaces and contribute to a majority of the economic development in the region (Zimmermann, 2011). Characteristic to the region is a governance structure entailing central authority but split local land administration agencies. The split between central and local governments often yields a lack of coordination. Regulations and administrative processes are not harmonized which brings about uncoordinated urban development, conflicts of interest and potential for non-transparent activity. Zimmermann cites the example of inefficient public authority and land system in Egypt resulting in minimal opportunity cost analysis and land investor confusion (2011). Institutional review to ensure that land laws are continually refined and land services are made more effective will be an essential stepping stone toward sustainable land management.

Another closely related issue of significance is that of "the rights to the city." This is of considerable importance since nearly half of the population lives in slums. Prevailing matters of exclusion and inequality can impact tenure security, quality of living, broad economic development and overall human well-being (Zimmermann, 2011). Adapting a sustainable land management approach is key to integrate decision-making and efforts in planning for greater societal benefit and urban "livability." For this thesis, it is important to acknowledge that Oman does not suffer the same challenges as most cities in the MENA region. Urban growth is not coupled with deep poverty and illegal inhabitation in slum-like settings as it may be elsewhere—living conditions for all of Oman's urban residents do meet basic living standards.

A final example of significant issues in land tenure is that of gender equality in societies based on Islamic law (Shari' a) and custom. Gender roles are ingrained in culture, tradition and religious faith. Respecting customary roles can be balanced with monitoring actions along gender-related land tenure issues to help guide context-appropriate reform (Sait & Lim, 2006).

2.2.4 Key Issue: Revisiting Good Governance in SLM

Overall, it is important that principles and best practice of good governance be applied as the Sultanate of Oman undergoes a rapid growth and urbanization period that will pose significant tests of developmental sustainability. As discussed in the previous chapter, sustainability is a tenet of good governance as a means to ensure stewardship and accountability for today's resources and their duration in the future—land being a significant resource for which there is competing interest (Wehrmann, 2012). Approaches for land governance reform can contribute to instilling sustainability throughout the land administration sector. Some core elements include identifying and addressing points of land conflict and sources of disputes; stabilizing and establishing safeguards against insecurity; passing comprehensive legislation; administering an effective registration system; strengthening institutional and human capital; and improving accountability, participation, and outcomes-based assessment. This is of particular importance in the MENA region where reform efforts tend to focus on technical improvements and less on legislative and administrative reform (Zimmermann, 2011).

Research has helped to reveals specific key issues of governance in the MENA region. Foremost is weak governance performance. This should not be confused with weak capacity of administrators. The deficiencies points to poor institutional mechanisms and challenges of coordination. Zimmerman makes particular note of two shortcomings: weak public accountability and performance orientation (2011). The World Bank advices that good performance management systems provide a checks and balances mechanism. Rule of law needs to be augmented with such auditing systems to ensure accountability on all levels (BTI, 2012; Deininger, et al., 2012). Consideration to acquire assistance to help institute these measures can be useful. Dabrundashvili suggests international cooperation as an effective approach and means to bring about valuable reform measures (Zimmermann, 2011). Some international assessment of good governance in Oman has been conducted; the Worldwide Governance Indicators (WGI) presented by the World Bank shows diminishing good governance from 2002 to 2011 (Kaufmann, et al., 2010).

> ***"Adequate shelter means more than a roof over one's head. It also means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and reliability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water-supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost."***
>
> *(Golubchikov & Badyina, 2012, pp. 3-4)*

2.2.5 Sustainable Housing – A Subset of SLM

As the study in this thesis is limited to the review of residential land administration, the exploration on literature regarding sustainable housing has been made. It is

important first to recognize housing as a substantial subset of land administration. Foremost, it is a basic daily social need for elemental welfare. As such, the coordination of residential lands significantly impacts many other areas of planning. The location of one's dwelling and its proximity to other sectors of the city impact mobility and transportation demand. The typology of homes touches upon heritage, material use, energy efficiency, etc. Planning housing communities has broad impacts on human development and livelihood, environmental footprints, and, of particular concerns these days, economic productivity (Golubchikov & Badyina, 2012). The spectrum and breadth of such impacts emphasize the rationale and significance for adapting concepts of sustainability in the housing sector.

Criteria for Sustainable Housing

The United Nation Human Settlement Programme (UN-HABITAT) provides clear criteria for what constitutes sustainability in the housing sector. Ten conditions are outlines to guide the processes for planning, designing, constructing and managing residences (see 'Theoretical Framework'). These criteria address: 1) physical condition and design of residential structures to ensure housing that is securely built, provides healthy living conditions and security, and made to last a sufficient period of time without atypical deterioration; 2) setting of housing prices that suit to the varying financial capacities of citizens; 3) material use that balances costs with ecological footprint; 4) provision of adequate shelter from natural elements and protection from avoidable risk due to natural disaster; 5) accessibility to basic living needs including sanitation, water, energy (it also addresses recycling to further the concept of sustainability); 6) objectives for minimizing use and waste, as well as and maximizing renewability, of natural resources; 7) protection of surrounding environments; 8) proximity and availability to avenues for human development including education, work, family care and health service; 9) community cohesion through the preservation and enhancement of the its social, cultural and economic identities; and 10) maintenance and periodic upgrading of physical infrastructure (Golubchikov & Badyina, 2012).

2.2.6 Best practices for SLM

A wide array of strategies for sustainable land management is being implemented in the GCC. Best practices are being tested and evolved in several sectors that contribute to sustainability: economic development, labor market, economic diversification, energy efficiency, spatial planning and ecological harmony. In a coordinated effort, Abu Dhabi and Dubai have launched a program to assess sustainable development. The Estidama Program (*estidama* means 'sustainability' in Arabic) provides guidelines and a formal instrument to assess the multifaceted aspects of sustainable development (Serageldin, 2012). An abundance of global examples may also serve to provide diverse strategies and solutions that may be considered for suitability within the context of a particular country. Applying recognized standards, guidelines and strategies can contribute significantly to prompt the adoption of sustainability promoting efforts.

Best Practices in SLM Related to Housing

There are good examples of planning for sustainable housing. Within the MENA region, both Abu Dhabi and Dubai have documented best practices implemented in the Emirate. Some of the issues that are considered in Emirati urban structure related to housing planning include building height, distribution of varying land use, densities and development phasing. Similar to the context in Muscat, there is a preference for lower density residential communities. Based on the Emirati examples, recommendations to manage this include the development of precincts, such as a capital district and CBO as key factors in guiding both planned and organic distribution. In relations to densities, the provision of medium- and higher-density housing alternatives allows for 'compact living' to make up for lower-density housing developments. Additionally, residential communities are planned as mixed-use spaces and are scaled for walkability. This configuration upholds the traditional family cluster housing arrangement known as *'fareej'* (Arabic for *'neighborhood'*), which has been modified to a 'vertical fareej' in contemporary higher-density spaces (Abu Dhabi Urban Planning Council, 2009).

There are unique solution proposals for development phasing in the Middle Eastern context. Rapid urbanization renders a degree of urgency brought on by demand, as well as the prioritization of macro-level city form and infrastructure. Three principles related to the phasing of residential development that serves as important rapid urbanization principles to uphold are highlighted. The first principle entails matching development to demand. Maintaining an equal and consistent rate is challenging due to varying timeframes of committed projects and negotiating priorities. But ultimately, adherence to this principle prevents overstocks from deflating market values or, conversely, inadequate development from having other negative economic and social implications.

The second principle entails coordinating development from key nodes. Development that grows out radially, as far as natural geography allows, helps to minimize unused space and distances for travel. Using land maximally, with reasonable mixed-use and density supports spatial sustainability and lessens the need to stretch into peripheral areas or to apply patch up urban infill.

The final principle addresses comprehensive use of land. It calls for the complete provision of infrastructure and services to lands. Whether it be by master planning or incremental development, lands should not be distributed for use until all services are easily accessible, particularly mobility options. To further the concept of sustainability, modes for mass public transit should be planned in accordance to specific uses of land and their interrelation. This principle reflects the concept of adapting an integrated planning approach. The Capital City Framework in Abu Dhabi, for example, takes an integrated planning approach to account for population density and mobility demands so as to reduce automobile dependency, loss of productivity and experiences of inconvenience (Abu Dhabi Urban Planning Council, 2009). In Dubai, the 2015 Strategic Plan aims to maximize land use by incorporating issues related to resource management and ecological sustainability within urban planning (Serageldin, 2012).

Improvements to sustainable housing provision require a basis in broader, national reform. Developing national land policies and strategic spatial plans provide guidance and uniformity for regional and local development, thus promoting holistic patterns. It also establishes streamlined coordination between public agencies, private sector, civil sector and citizens. The Tehran Declaration 2009 provides a comprehensive basis for the legislative, administrative and technical parts that constitute an effective system for land administration. They draw on good practices—from governance practices including transparency, inclusiveness and accessibility, to technical standards including integrated computerization and data-sharing of land topographical and registration information (Zimmermann, 2011). Exemplary cases, such as the one in Burkina Faso, delineate the wide participation of representatives from all walks of society and strong support and accountability measure to implement consensus based visions (Palmer, et al., 2009).

2.2.7 Monitoring SLM

The discourse on sustainable land management has paved the way for the formulation of specific guidelines to frame its monitoring. A three-stage framework is proposed by Palmer et al. (2009). To start, the proposed framework involves a historic review of land rights to elucidate its socio-political- economic background leading up to a present-day review of its institutionalization and administration. This will be conducted as part of the primary and secondary data collection and analysis for this thesis research. Second, extrapolating from World Bank practices, an analysis of reform in the land sector is undertaken. Examining reform sheds light on evolving interests of multi-stakeholders and the initiative and constraints to materialize those interests. In the case of the research objective outlined in this paper, a focused review will be made of land distribution reform to contribute to the broader monitoring of housing provision in Oman. The final stage of the framework entails supporting reform through tried and tested mechanisms for better management, such as long-term strategy development, aligning policies and disseminating information widely.

The aforementioned framework closely parallels work done by the CSD Work Programme on indicators for monitoring sustainable development. Assessing sustainability along various sectors and can be readily separated along its main economic, institutional, ecological, spatial and social dimensions (Smyth & Dumanski, 1993). Developing indicators along these four main axes allows for a more detailed assessment of specific issues by experts; this can facilitate understanding the degree to which these aggregates correlate, as well as overall decision-making (Indicators of Sustainable Development, 2001). The research for this thesis is focused on contributing to the evaluation of social, institutional and spatial factors that promote sustainable development. Health, for example, is one of the main social indicators and the analysis of land management should include an examination of its effects on health (Indicators of Sustainable Development, 2001). Following the guidance of theoretical discourse and relative case studies will help to develop indicators suited to the particular context of this study.

The literature points to some arguments that challenge the discourse on monitoring sustainability that should be kept in mind. One point of contention is whether sustainability needs to be assessed on a yes/no basis or along a graduated spectrum. It is also important to note the difficulty of assessing social, political and economic statuses:

> "Identification of social factors in evaluating the sustainability of land use and management must begin with the premise that sustainability is difficult, if not impossible, to attain in a context not characterized by social justice, equity, participation, and the existence of demographic institutions." (Smyth & Dumanski, 1993, p. 47)

It must be determined whether there is a fundamental value and consensus for achieving sustainable living, and whether there is the capacity to drive land use by this purpose (Smyth & Dumanski, 1993).

Overall, guidelines and indicators for monitoring sustainability is complex. The integrated manner with which all sectors relate means that specific aims to look at social or institutional facets are difficult to distill from fiscal, legal, political, environmental, technical and historical influences. Still, it is necessary to make the attempt to identify singular, measureable indicators that contribute to broader analysis of sustainable land management and the decision-making that determine its implementation (see examples in Box 11).

Box 10 – Issues of Land Use That Can Be Quantified or Qualified (Basis for Indicators)

Good Land Governance: Reality – Theory – Policies
(Wehrmann, 2012)

- Administrative capacity (degree of lack of capacity)
- Administrative corruption (degree of corruption)
- Political corruption (degree of corruption)
- Dysfunctional system
- Delays and confusions
- Land use conflicts
- Unreliable base for decision-making
- Undermines pro-poor programs
- Fake and overlapping titles
- High transaction costs
- Inefficient land market
- Low investments on land
- Slow economic growth
- Graft and corruption
- Degree of transparency

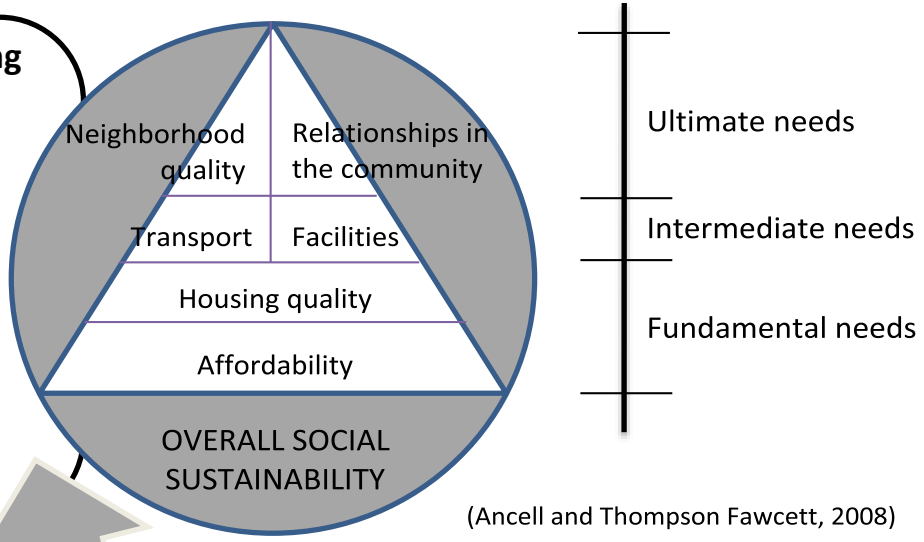
Theoretical Framework for Sustainable Land Management

(Source: author)

Concepts for Social Sustainability of Housing

- Affordability
- Housing quality
- Transport
- Facilities
- Neighbourhood quality
- Relationships in the community

(Ancell and Thompson Fawcett, 2008)



(Ancell and Thompson Fawcett, 2008)

UN-HABITAT Criteria for Sustainable Housing (2012)

Sustainable houses are those that are designed, built and managed as:

- Healthy, durable, safe and secure,
- Affordable for the whole spectrum of incomes,
- Using ecological low-energy and affordable building materials and technology,
- Resilient to sustain potential natural disasters and climatic impacts,
- Connected to decent, safe and affordable energy, water, sanitation and recycling facilities,
- Using energy and water most efficiently and equipped with certain on-site renewable energy generation and water recycling capabilities,
- Not polluting the environment and protected from external pollutions,
- Well connected to jobs, shops, health- and child-care, education and other services,
- Properly integrated into, and enhancing, the social, cultural and economic fabric of the local neighbourhood and the wider urban areas,
- Properly run and maintained, timely renovated and retrofitted.

(Golubchikov & Badyina, 2012)

Criteria for SLM: FESLM Working Party, Nairobi

- Maintain or enhance production/services (Productivity)
- Reduce the level of production risk (Security)
- Protect the potential of natural resources and prevent degradation of soil and water quality (Protection)
- Be economically viable (Viability)
- Be socially acceptable (Acceptability)

(Smyth & Dumanski, 1993)

Comparison of Criteria for Sustainable Land Management, Criteria for Sustainable Housing and Concepts for Social Sustainability of Housing

3. ANALYSIS OF DATA

3.1 BACKGROUND OF CASE STUDY

3.1.1 Location

(Source: Google Maps)

Sultanate of Oman

Oman is located on the Arabian Peninsula at the southwestern-most part, sharing western land borders with UAE, Saudi Arabia and Yemen. The country possesses a long eastern coastline along the Gulf of Oman and the Arabian Sea, across from which are Iran and Pakistan. Total land area is 309,501 kilometers squared (Wikipedia, 2013).

Muscat (capital) and its major districts

The capital sits as a northern crown point along the Gulf. Historically, it has provided in strategic port location along important trade routes. The metropolitan area comprises 3,500 kilometers squared (Wikipedia, 2013).

The Muscat Governorate comprises six wilayats:

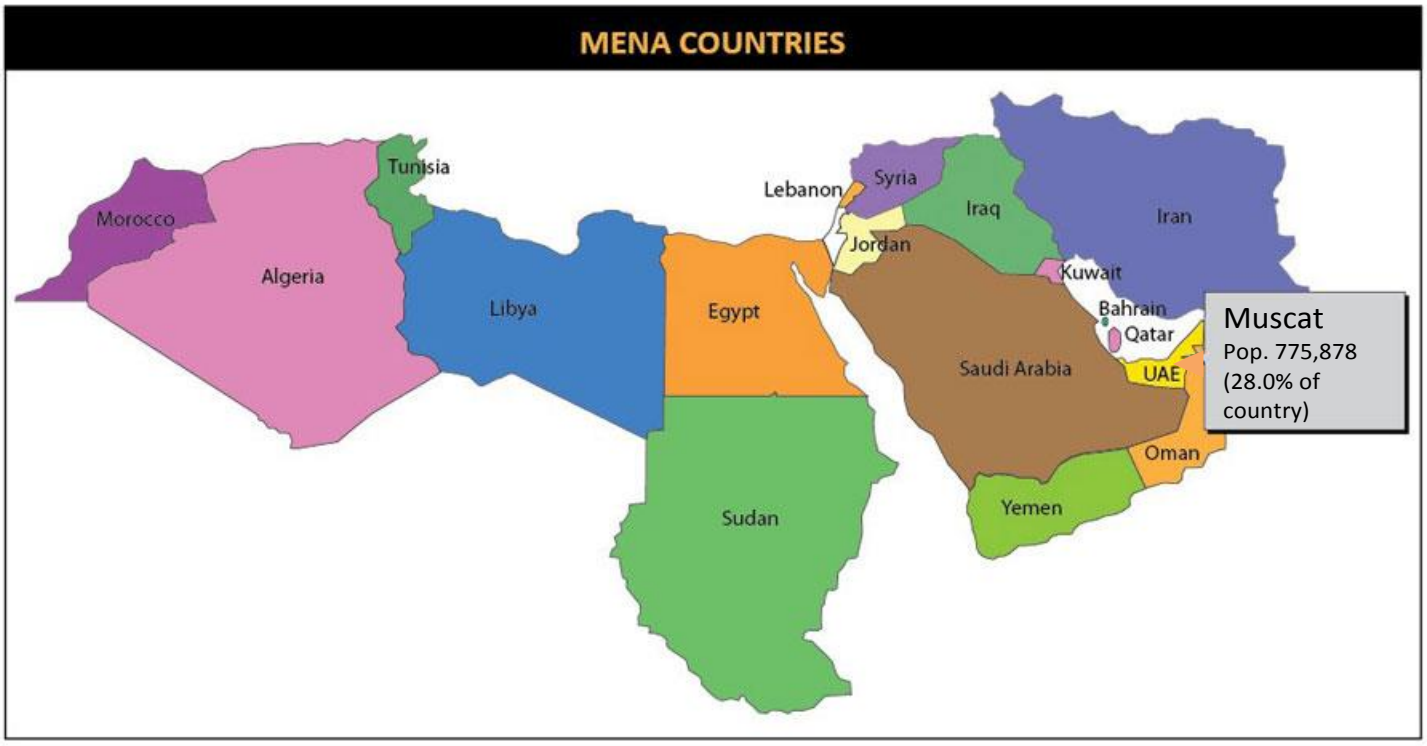
- Al Amrat
- Bawshar
- Muscat
- Muttrah
- Qurayyat
- As Seeb

(Source: Google Maps)

3.1.2 Regional Membership and Affiliation

It is important to begin by placing Oman in its regional context. Oman is one of six oil-exporting countries that comprise the Gulf Cooperative Council (GCC), which formed in 1981 and also includes Bahrain, Kuwait, Qatar, Saudi Arabia and the UAE. The GCC is part of the broader Middle East and North Africa (MENA) region, which includes the Maghreb, Mashriq and Southern Tier Countries (see Figures 1 and 2) (Serageldin, 2012). The region boasts a cumulative GDP of about US$2 trillion (Intitute of International Finance, 2012).

Figure 1 – State of Arab Cities: Challenges in Urban Transition 2012



(Source: www.mmfx.com)

Figure 2 – Countries within the MENA Region by Sub-group

Mashriq	Maghreb	Gulf Cooperation Council (GCC)	Southern Tier Countries
Egypt	Algeria	Bahrain	The Comoros
Iraq	Libya	Kuwait	Djibouti
Jordan	Morocco	Oman	Somalia
Lebanon	Tunisia	Qatar	Sudan
Palestine	Mauritania	Saudi Arabia	Yemen
Syrian Arab Republic		United Arab Emirates	

(Source: State of Arab Cities, 2012)

3.1.3 History of Oman

Historically, Oman was a country of Bedouin tribes that thrived on modest agriculture within desert oasis settlements and fishing along the coastline. Its location at the tip of the Arabian Peninsula provided an advantageous port location along trade routes (Serageldin, 2012). The basis for Oman's people and their culture reflects centuries of life sustained on desert lands and environment. Extended families established compact settlements with strong conservations practices for water and other limited resources. Homes were designed using natural materials fashioned in a manner conducive to provide protection from the harsh elements and security from competing tribes. Clay materials, air passages designed between homes and green courtyards maximized the maintenance of suitable temperatures (Taylor-Soubeyran & Vignes-Dumas, 1987). Settlements formed the basis for trade and agriculture and day-to-day life that revolved around loyalties and commitments to blood relations (Scholz, 1978).

Box 11 – Significant historical events, changes

New regime
On 23 July 1970, Oman's present ruler, Sultan Qaboos, overthrew his father Said bin Taimur with British and other assistance, marking a turning point in Oman's modern history (Wikipedia, 2013).

"Oman's renaissance"
A period of transformation toward modernization (BTI, 2012).

History of the oil industry
Established in 1967, the country's primary oil producer is Petroleum Development Oman LLC (PDO). The first oil refinery in Oman "Oman Refinery Company LLC" has been established in 1982. The second located in the coastal town of Sohar "Sohar Refinery Company" shipped its first product in July 2006. In September 2007, Oman merged "Oman Refinery Company LLC" and "Sohar Refinery Company LLC" into "Oil Refinery Company LLC." The Omani Government holds a 60% stake in the oil sector. Gas production is also on the rise in Oman. (Hasan & Al Yaqout, 2011; Wikipedia, 2012).

Modern day living in Oman has undergone significant transformation. The discovery of oil and gas reserves in the 1960s has given rise to the speedy emergence of a petroleum industry that has thrust the Sultanate into the present-day world economy and all its demands, especially those on land and resources. While the 'modernization' of Oman, derived on Western influence, has been considered "Oman's Renaissance" (BTI, 2012) the transformation also reflects the veering from long-standing customary concepts of spatial usage and social behavior of the Omani people's traditional culture and practice for sustainable living. While Western influence should not be demonized it should be balanced with the conventional 'wisdom' of planning and development established in former times (Climate Guy, 2012). Furthermore, land use derived on the basis of distribution to citizens—the central focus of this thesis—should persist along the lines of the recent motivation to diminish tribal division and to establish a "national conscious" for binding people to their land, promoting personal economic independence and preserving land (Scholz, 1978, p. 45).

3.1.4 Population

Oman's population stands just under 3.1 million (July 2012 est.), representing less than 1% of the 320 million inhabitants in the entire MENA region. Population growth is estimated at 2.043% in 2012 (47th country in comparison to the world) (CIA, 2012). It is noteworthy to mention Oman's large expatriate community; 816,143 non-nationals comprise more than a quarter of the population (Census, 2010). Presently, 73% of the population inhabits urban areas and it is estimated that the annual urbanization will rise at a rate of 2.3% for the period 2010-15 (CIA, 2012). The capital metropolitan area population is 775,878, which represents 28.0% of the national population and has a higher rate of urbanization (Census, 2010).

> ***"Given that 90 per cent of the Gulf Peninsula is desert, Gulf Cooperation Council countries are among the most urbanized in the world and several of the emirates function as city-states. These countries have achieved major milestones in infrastructure, health and education, and have reached their Millennium Development Goals. Faced with declining oil reserves and the rising cost of subsidies in energy, water and housing, the policy focus now addresses economic diversification, the absorption of nationals into the private sector labour force, affordable housing and environmental sustainability. Highly-ambitious projects in public transportation planning and urban environmental sustainability are underway, although urban planning is still often done as a piecemeal effort."***
>
> *(Serageldin, 2012, p. 13)*

3.1.5 Economy

Within MENA, development and per capita growth is among the weakest in the world, despite the region's vast natural resources (Bhattacharya & Wolde, 2009). The GCC, conversely, has had relatively strong development due to its ambitious objectives that go beyond free trade. The GCC has placed a progressive focus on expanding a wide spectrum of sectors, prioritizing capital mobility and increasing national labor (Akhtar & Rouis, 2010). One concern related to the GCC growth performance remains the fluctuation of commodity prices, such as oil, upon which their economies depend (Bhattacharya & Wolde, 2009).

The middle-income economy of Oman continues to see annual growth of about 4%, exceeding world estimates (real GDP growth is estimated at 4.1% in 2010E and 4.3% in 2011E) (EIU). Growth in these challenging global financial times can be accounted to recent increases in oil barrel prices. Despite such growth, the Sultanate has taken a prudent stance to diversify its economy over concerns about diminishing petroleum reserves. Governmental initiative has been taken toward identifying new economic sectors. Oman has pursued other material industries, such as mineral deposits, optic fiber and construction material. The "Omanization" program aims to increase the proportion of nationals to specific targets in various labor force sectors, decrease youth unemployment and to encourage their greater capacity in management through vocational training. The government also has aims to move toward a more service-based labor force—this

initiative helps to maximize human capacity for a more effective and sustainable private sector (BTI, 2012). Also, investments to establish new key industries, like tourism and port services, have taken greater precedence (Serageldin, 2012). Large-scale projects, such as those at Port Salalah have been better adapted for S-class vessels and greater free trade cargo management; likewise, Al Madina A'Zarqa (Blue City) and The Wave are drawing international attention, pioneering foreign travel and gradual sector growth (Hasan & Al Yaqout, 2011).

Currently, the Eighth Five-Year Plan (2011-2015) continues toward a goal to reduce oil-sector economic contribution to 9% by 2020 (CIA, 2012). The primary strategy has been to stimulate the national economy through robust spending on infrastructure while maximizing on oil revenue through increased crude oil and natural gas production. Surpluses carrying forward from the Seventh Five-Year Plan have also allowed for judicious repayment on development projects, such as the Salalah Port and Muscat Expressway. Other astute initiative has been made, such as distributing spending across all governorates (overall spending amounts exceeding implemented spending). This progressive initiative for economic development sets the stage for expansion from current economic centers to secondary cities (Eighth Five-Year Plan). These investments provide new networks, improve quality of life, diminish risks at the hand of natural disaster and provide catalysts for further economic development. If done with adequate consideration, these economic measures can contribute to greater overall sustainability (Serageldin, 2012).

In Oman, economic modernization has triggered rapid development in all sectors, especially land administration and infrastructure. Rapid development has not been coupled with appropriate strategic planning, however. Development has been short-sighted and incremental leading to uncoordinated land use, a high dependency on automobile transport and high energy consumption. To compound these issues of sustainability, many studies point to the eminent decline in oil and gas reserves, which will have a significant impact on the national economy. The State of Arab Cities reports that 66 per cent of Oman’s GDP comes from oil (Serageldin, 2012). Attention has been placed on a shift from the reliance on an oil- and gas-based economy to one that is knowledge-based and more broadly integrated into the global economy. Furthermore, land in and of its self needs to be considered for its socioeconomic factors to maximize the land’s potential contribution to sustainable development (Wehrmann, 2012), which will be explored in the chapters to follow.

3.1.6 Ecology

Though this thesis will focus less on environmental concerns, it is important to provide background about two prevalent ecological issues in Oman and its surrounding region. The issue of desertification and fresh water scarcity are not to be taken lightly in the region. Though the matter has persisted throughout time, the population growth and rapid urbanization are challenging planners' abilities to troubleshoot the issue of demand for potable water supply (Serageldin, 2012). The depletion of readily available natural supplies also contributes to land degradation that can have significant further repercussion.

The high consumption of energy and its environmental impact is of growing concern within the region. The GCC emits half the carbon dioxide in MENA and energy demands have steadily increased over time (Serageldin, 2012). Air pollution and high energy demand are clear environmental sustainability issues that are being monitored. Institutional policies are in place and internationally agreed upon benchmarks are being adhered to (BTI, 2012).

3.2 GOVERANCE

Governance in the GCC conforms to centralized models in most cases. Urban planning is developed at the national level and administered from a top-down hierarchy (Serageldin, 2012). A governance gap thus exists in all of MENA in fact, which can be attributed to the large revenues generated by oil since the will to uphold accountability measures that may work against the personal interests of those in power may be weakened:

> "Riches from hydrocarbons, instabilities caused by conflict or the threat of it, or interference stemming from geopolitical interests—have handicapped the emergence of the institutions of good governance in many of the region's countries. Worse, those factors often reinforce behaviors and governing arrangements that defy accountability and that put people at the mercy of government." (Smyth & Dumanski, 1993, p. 59)

The case of governance can be seen in a similar light in Oman. Governance is entirely formal and attempts at informality are not tolerated. Political parties are strictly forbidden and the Sultan maintains absolute authority despite minor initiatives for regime reform (Serageldin, 2012); however, the justice system maintains independence from government intervention to some degree (BTI, 2012).

Officially, the Sultanate of Oman is governed as an Islamic Ibadhi state following the conversion of Omanis to Islam under Amr ibn al-As in the 7th Century. HM Sultan Qaboos is the current ruler following the overthrow of Said bin Taimur, his father, on 23 July, 1970 (Wikipedia, 2013).

The Sultan assumes all authority over the nation, though he governs through a series of councils and ministries. The Basic Law of the State establishes the articles by which the government functions establishing governance structure, accountability and the right and duties of citizens. The mandates of a few of the constitutional articles related to sustainable development and will be examined further.

The Sultanate is regulated by the Basic Law of the State (Article 58). Part Five of the constitution defines the Majlis Oman (The Council of Oman) and the two organs which compose it: the 84 member Majli A'Shura (The Consultation Council) and the 59 member Majlis A'Dawla (The State Council). The two governing bodies assume specific powers and conditions they must fulfill independently and in conjunction. The Majli A'Shura and Majlis A'Dawla preside over 43 municipalities that are decreed to be autonomous but still receive a high level of centralized oversight (Article 58, Part Five, Basic Law of the State) (The White Book, 1996).

Starting in 1985, the planning sector has been presided over by the authority of the Supreme Council for Town

Planning. Under royal directive, this agency oversees national development, both social and economic, through strategic urban planning on a regional basis. In 2005, the Supreme Council was restructured by Royal Decree and in an unprecedented move it was disbanded by HM Sultan Qaboos in 2012 (just a few months before research for this thesis got underway). Though the rationale has not been made officially known, there are reports of apparent illegitimate activity in terms of land schemes for self-profit. A new Council has been established as a current understudy, but its role and authority have not been officiated yet. It serves under the title of Supreme Council for Planning of the General Secretariat of Muscat.

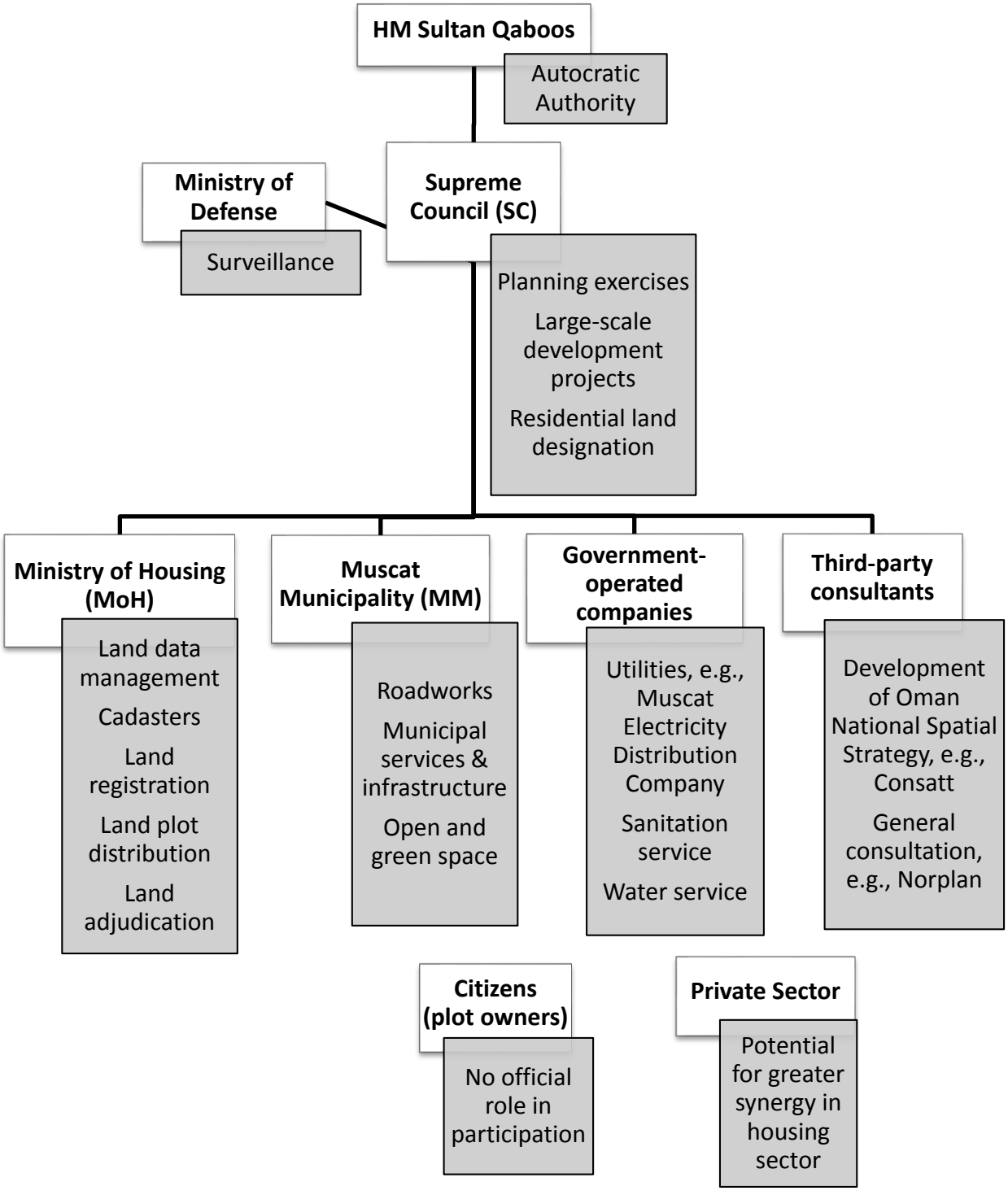
In addition to providing background on institutional structure for governance, it is important to present a brief review of the role of the private sector, civil society and citizens. The market base in Oman has been founded as a free market and supported over time by legislature to protect the principles of free trade and competition. In 2000, Oman entered the WTO; in 2009, free trade agreements with the United States were established and foreign investment was incentivized. These steps to expand the Sultanates entrée into the global economy have been paralleled by a national effort to promote private sector growth. Privatization, partly or wholly, of state run ventures has been deliberate. This has been notable in the case of infrastructure enterprises that have come out of increasing private public partnership (BTI, 2012).

The formation of civil society associations are guaranteed by basic law, but the Omani government maintains tight reigns on them. The objectives and activities of such organizations are closely reviewed and must be approved by the Council of Ministers (Serageldin, 2012). Civil society organizations must remain apolitical entities and concern themselves in areas like sports, culture the environment and social services (BTI, 2012). The World Bank makes recommendations for expanded civil society development in Oman (Deininger, et al., 2012).

Citizen participation is deeply rooted in a cultural respect for their benevolent ruler. While documentation supports that the Sultan encourages participation of the people, the lack of organizational structure and the prohibition of criticism toward the Sultan creates a sense of mixed ideology. The matter of participation is compounded by the limited access to information and the influence of the executive branch over the media. Citizen participation is also impacted by social issues. Socio-cultural constructs that have yielded gender inequalities that are apparent in the fact that women have achieved partial suffrage in Oman and have low representation in government (Deininger, et al., 2012). The Oman Women's Association was formed in 1970, however, and by 2004, at least eight women were appointed to the State Council; one has become the first female minister (for higher education) (Serageldin, 2012). Progressive measures have been made on the technological side, however. eOman was implemented to introduce information technology and egovernment to streamline government services and make them digitally accessible to businesses and citizens (eOman, 2013).

A list of the various actors that play relevant roles in the overall governance process for residential land in Muscat was established (see Appendix B). The major actors are presented below in Figure 3 to show their relation.

Figure 3 – Relation of Actors in Residential Land Governance Process



3.2.1 Land Governance and Administration in Oman

The Omani government is highly centralized. Beneath the royal authority and The Oman Council are 12 national ministries, through which the Ministry of Housing administer national, regional and local urban policy and carry out certain portions of urban development, and specifically residential plot mapping and distribution. Municipal agencies are supposed to work as lateral partners to the Ministry of Housing on a local level. According to State of Arab Cities, the Muscat Municipality implements plans and new developments related to road works and municipal services and infrastructure (Serageldin, 2012). Upon interviews with the Muscat Municipality, it was clarified that while some municipalities perform service provision, in Muscat utility and sanitation services are rendered by government operated companies. The Muscat Municipality is thus responsible for road infrastructure and open space. As it can be seen, the governance structure has a tendency to be unclear and prone to upheaval due to issues of efficiency, arbitrariness and corruption, which undermines the capacity to provide service and security in an organized fashion to the public (Serageldin, 2012).

Three agencies assume the majority of responsibility for land administration in Muscat. As previously mentioned, the Supreme Council of Town Planning was dissolved and a forthcoming council under the interim name of Supreme Council of Development for the Secretariat of Muscat will serve as the authoritative head for land management decision-making and action. As far as it is understood, its primary focus will be to bring forth a national spatial strategy and to coordinate the undertakings and function of other the agencies it will be designated to oversee.

The Ministry of Housing is responsible for land use through land planning, cadaster mapping and plot distribution. It oversees the collection and organization of land data, including the land registry, and the enforcement of tenure laws. The agency also provided housing assistance through need-based financial programs.

Lastly, the Muscat Municipality provides services related to health, finance, technical and administrative support to its Governorate citizens (eOman, 2012). The Muscat Municipality has a council comprised of 28 elected members—11 of whom represent particular Ministries, including the Ministry of Regional Municipalities and Water Resources and the Ministry of Housing. This council set forth policy, proposes budget and tax structures and oversees general municipal projects. As the capital Municipality, it has some unique provisions to manage certain projects that other municipalities are not entitled to.

3.2.2 National Urban Policy

The oil-related economic boom and associated population growth have triggered a rapid urbanization pattern across the GCC. Desires to replicate Western models urban development have infringed on traditional

settlement concepts, housing typology and social-spatial usage. The vision of city skylines laden with high rises has become realities in many prominent cities in the GCC that have raced to replace heritage-based patterns with capitalistic-driven urban spaces (Serageldin, 2012). The fact that many of these cities did not have integrated land policies in place, as is the case in most of MENA, made it challenging to coordinate efforts for land management in a comprehensive and sustainable manner (Palmer, et al., 2009). Only in recent years has national physical planning been stepped up: Lebanon unveiled its first spatial plan in 2005; Jordan and Libya in 2006; and Morocco in 2008. These plans tie together urban development with economic growth and, to varying degrees, considerations for social living and the environment. They call for cooperation between central and local organs and international outreach to achieve their ultimate objectives. The Abu Dhabi Vision 2030 is a prime example of a national plan that has a wide breadth of comprehensive vision and integration (Serageldin, 2012).

In the 1990s, Oman launched its own effort toward strategic development with vision planning for 2020. The Vision 2020 centers on a series of five-year plans for economic development. Land administration was not set as a priority consideration from the onset, and documentation does not show the Ministry of Housing included within the ministerial committees developing the Vision 2020; hence, a lack of land management or development planning is expressed in the guiding document.

Box 12 – Summary of Oman National Spatial Strategy (ONSS)

The main objectives of the Oman National Spatial Strategy can be summarized in the following:

- Optimise utilisation of land and natural resources by proper allocation of land for development of economic sectors, social and physical infrastructure while protecting the environment including natural and cultural heritage.
- Identify the strategic needs of the country in terms of infrastructures and services.
- Fostering geographical balance through equitable distribution of development programmes among the various governorates/regions of the Sultanate and utilise the comparative advantages of each governorate/region to sustain intra- and inter-regional integration.
- Achieve a balanced urban growth for cities and to promote rural development.
- Facilitating the development of various enterprises.
- Improve and upgrade the social services and infrastructure in both urban and rural areas.
- Achieve integration between planning activities and policies and availing required data for planning purposes and decisions making through the establishment of efficient planning system for the purpose of the proper implementation of the National Spatial Strategy.
- Achieve higher levels of participation of national workforce in economic activities.
- Establish an integrated system for geographical data and information (GIS) required for planning purposes in various fields.

(Muscat Press and Publishing House SAOC, 2010)

In 2010, the Supreme Council for Town Planning set out to launch an Oman National Spatial Strategy (ONSS) based off of the guidelines set forth in the Oman Vision 2020 (Serageldin, 2012). Though the ONSS never materialized and has yet to be created, the main objectives were outlined center on developing a national geographical information system to coordinate and monitor institutional efforts toward sustainable urban development (see Box 16). A recent search was conducted for a consultancy group to develop the basis for a national spatial strategy for Oman. Norplan's Urban Development and Planning division was listed as the winner for this international bid (Muscat Press and Publishing House SAOC, 2010). Further investigation lead to the discovery that Norplan did not, in fact, win the consultancy project, but rather Consatt and Prisma Solutions, Austrian consultancy groups, did.

In summary, the national strategy places an emphasis on economic, social, spatial and environmental sustainability. It specifically highlights targets for inter-regional development that makes provision for adequate livelihood, enterprise and ecological balance. It also explicitly points to the deployment of advanced technologies, such as a GIS. An integrated system for geographical information would be a versatile tool to coordinate national development objectives. Prisma Solutions aims to establish an Oman National Geographical database (GIS) to provide relevant data to extend the informational capacity for national, regional and local planning. The ONSS also aims to serve as a system for conducting continuous monitoring (Prisma-Solutions.at, 2012).

3.2.3 Relevant Issues in Urban Planning in Oman

Having a general profile of Oman, including its land governance structure, attention is now turned to relevant issues of planning in Oman to complete the background information for this thesis. There is significant documentation of direct and indirect factors that, if left unaccounted, would provide an incomplete basis, and potentially undermining effect, for reform proposals (Palmer, et al., 2009).

Government spending is a key factor. In 2011, it was reported that the national government intend to invest US$78 billion to build infrastructure that would affect the real estate market (Oman Observer, 2013). Conversely, the necessity to monitor spending has also seen the increase in austerity measures to balance the state budget (Hasan & Al Yaqout, 2011). The injection of national funds into urban projects toward making land ready for good use impacts land values, private wealth and citizen spending power directly.

Federal contributions toward urban development are complicated by the issue of non-oversight. The reliance on central financing often results in excessive spending and wasteful consumption of land since there is no mechanism for accountability over local development decisions. Privatization may help to serve as an organic free market checks-and-balances system as private investors follow up on and gauge their competitors. A good example is the singular focus on automobile dependent transportation. Robust investment in infrastructure has put off potentials for more sustainable mobility options like mass transit, and has contributed to excessive driving, increases in automobile related deaths, more sedentary living and higher greenhouse gas emissions.

Although the issue of affordable housing is not an excessive issue, a watchful eye is needed to ensure the real estate market does not assume a speculative stance, thus driving up prices. Balance in the housing sector involves encouraging investment growth while maintaining fair economic access to adequate housing. Shortages in smaller apartments in the Muscat rental market indicate higher demand and limited budgets (Serageldin, 2012). Furthermore, the growth of wealthier expat populations and the backlog on plot distributions has driven up rental and purchase prices. Without effective monitoring or intervention, significant challenges may arise that may contribute to diminished economic productivity and social unrest, especially for the marginalized. Care must be made of the type of interventions, i.e., lending practices must be culturally appropriate and cannot go against prescriptions within Shari' a law.

> ***"The demand for affordable housing in Oman is on the rise, according to real estate agents and property developers. With one fifth of Oman's population aged between 20 and 30, the demand for high end real estate is flagging and affordable family homes are becoming highly sought after, so much so that this could very well drive the next economic boom, they say."***
>
> ***"Moreover, the demand for affordable housing would continue to increase, they say, as Oman's youth moves away from joint families to nuclear families," Moosa added.***
>
> *(Oman Tribune, 2010)*

Population growth will continue to be a significant force to be reckoned with. High spurts of growth occurred in the 80s and 90s and the continuous rise in urban population will have considerable implications on land and resources in Muscat. As a side to this, the age distribution needs to be monitored to forecast specific demands at certain periods. Most of the GCC countries, including Oman, have adopted strategies for regional development that will help shift populations to peri-urban developments as a means for growth management (Serageldin, 2012).

Whereas there are several issues and factors involved in land management in Oman, one of the essential elements is the intermingling of the principles of sustainability. Balance must be struck on all levels: economic, social, spatial and environmental to perpetual thriving national development that has minimal negative impacts.

The various factors mentioned above provide the context for Oman's history, politics, economy, culture, geography, religion and societal relations. Without their consideration even the most effective reform strategies may fall short of their intended outcomes (Palmer, et al., 2009). This report will now turn to strategies for institutional reform in the following 10 areas:

1. Central authority
2. Interagency function
3. National strategic planning
4. Inclusive and participatory approach
5. Private public partnership
6. Policy reform
7. Monitoring; review of existing assessment of good land governance
8. Controls for corruption
9. Effective reform

Based on the analysis of data, this thesis proposes several areas of reform along these vectors that aim to establish improved good governance and sustainability in the residential land sector in Oman.

3.3 REVIEW OF LAND LAW IN OMAN

3.3.1 Overview of Land Law and Residential Land Administration in Oman

History of land tenure

Land tenure is deeply rooted in any country's history; the case in Oman is no different. As a Sultanate, the land has historically been considered that of the Sultan. In the 1970s, motivated by more progressive ideologies than his father and grandfather, HM Sultan Qaboos has set in motion the provision for land tenure by the inhabitants of the Sultanate. Scholz wrote extensively about land use and typology in that period and made a distinct mention to land provision:

> "Each Omani is allocated one piece of land to build a house on and one for commercial or agricultural use within his traditional living area." (Scholz, 1978, p. 45)

He provided examples of fast growing residential areas, such as Ruwi and Azaiba.

The Basic Law of the State (aka the White Book) sets forth the principle provisions for land within the Sultanate. As per the Economic Principles (Article 11, Part 1) the following is defined:

- (Sustainability) - Public property is inviolable. The State shall protect it, and citizens and all other persons shall preserve it.
- (Social Justice/Equity) - The social principles are:
    - Private property is protected. No-one shall be prevented from disposing of his property within the limits of the Law. Nor shall anyone's property be expropriated, except for the public benefit in those cases defined by the Law and in the manner stipulated by the Law, and on condition that the person whose property is expropriated receives just compensation for it.
    - Justice, equality and equality of opportunity between Omanis are the pillars of society, guaranteed by the State.
    - Co-operation, compassion, strong ties between citizens, and the reinforcement of national unity are a duty. The State shall prevent anything that could lead to division, discord, or the disruption of national unity.

(Economic Principles Article 11, Part 1)

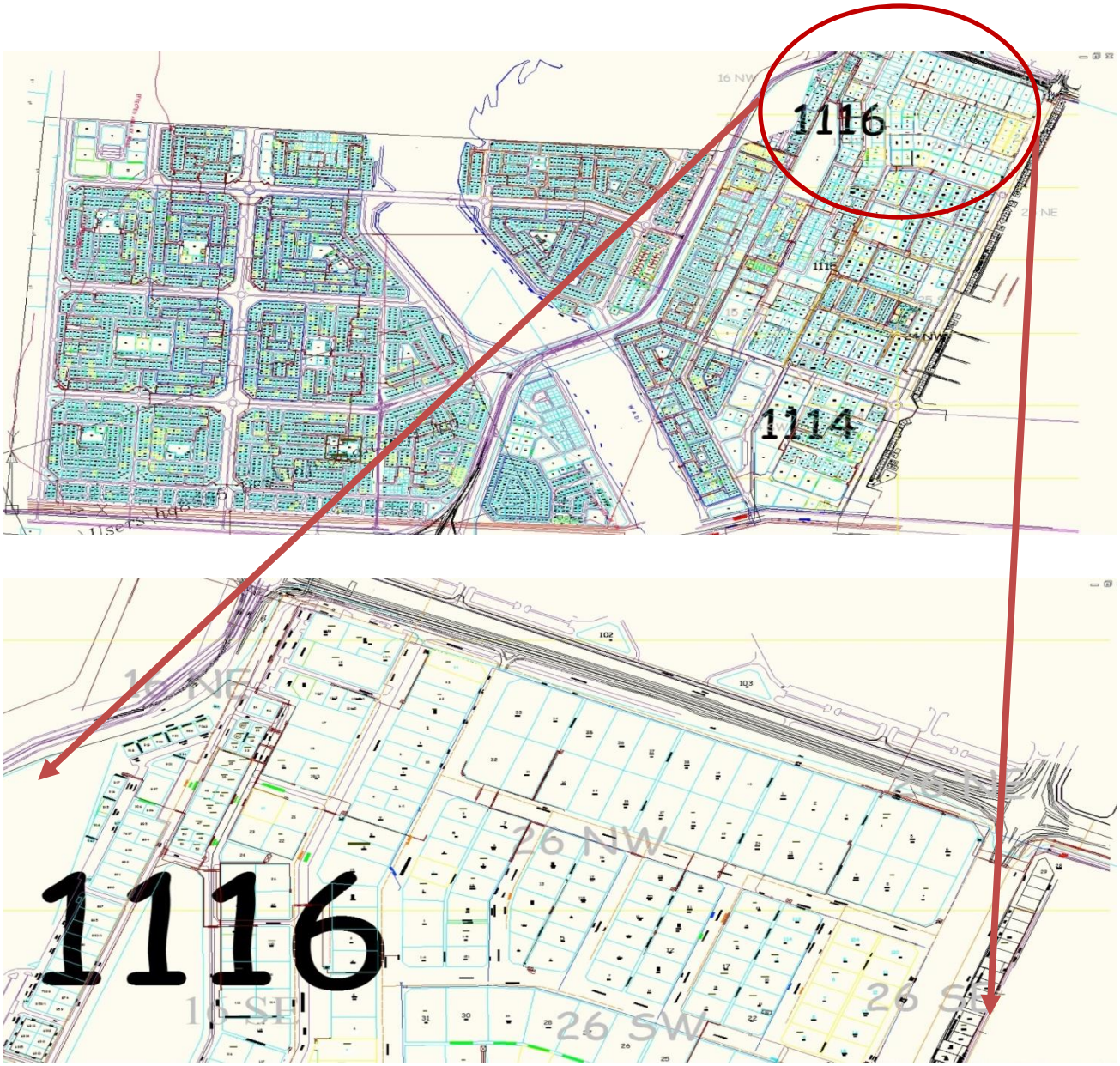
Later, after the Law of Lands of 1980 was laid out, Royal Decree (5/81) established the official provision of land to the people for usufruct (The White Book, 1996).

Overview of general urban planning process in Muscat

As part of the research objective, an effort was made to establish a clear overview of the land planning process, especially as it relates to determining and providing its use for residential purposes. The process

begins with land surveying done by the designated survey authority (National Survey Authority, an organ of the Department of Defense). Survey data is provided to the Supreme Council (disestablished in spring 2012) to determine land use projects related to the housing sector. Following this, the Director of the Ministry of Housing designates residential development sites. A combination of departments coordinates the GIS information into plans that are presented for decision-making. Once approved, draftsmen at the Ministry of Housing utilize the detailed survey data, Google Earth, and the new WG 84 (which replaced the old Clarke 1880 GIS coordinate system at the start of fall 2012) to allocate 600 square meter plots for distribution.

Figure 4 – Example of Cadaster for Residential Development in the Al Amrat Wilaya of Muscat



(Source: Ministry of Housing, Drafting Department; Rashed, 2012)

The planning department at the Ministry of Housing (MoH) also undertakes modification projects:

> "Planning department does work. One of the works is doing the plan. We are doing some plans for distribution of plots. Modification of land itself, adding extensions, changing land use, giving more height for the buildings, extending the services like electricity, water, sanitation." (Al Jahwari Oct 2012)

At the Muscat Municipality, planning exercises are undertaken to develop infrastructure for residential sites. The *Muscat Area Housing Report* notes that planning of residential areas is tied to land monitoring and acquisition. The Municipality official that was interviewed made no mention of this, however, when asked about land monitoring.

In general, the government is expected to designate strategic land reserves, plan for adequate infrastructure provision, make the effort to rehabilitate existing residential sites, and provide low-income housing to support those in need.

Box 13 – Overview of General Planning Process for Residential Land in Muscat

- National Survey Authority (part of the Ministry of Defense) utilizes satellite imagery to provide basic geographical, geological, topographical and ecological information, including maps for roads and natural boundaries. They provide these spatial data to Supreme Council.
- Supreme Council conducts area studies and planning exercises to determine and approve specific land criteria and large-scale development projects.
- Two departments within the Ministry of Housing (MoH), the GIS database and presentation departments, coordinate planning. The database department translates survey data into a "form" for specific projects; these "forms" are submitted thus to the presentation department which puts forth specific proposals for mid- to small-scale projects (including residential distribution areas) to decision-makers in the Ministry of Housing.
- Director of the MoH determines what land areas may serve as residential development sites.
- Draftsmen at the MoH utilize the survey data, Google Earth, and the new WG 84 (which replaced the old GIS coordinate system at the start of fall 2012) to allocate 600 square meter residential plots for distribution and created official cadasters.
- Muscat Municipality is responsible for most infrastructure provision and open/green space development.

(See Figure 3 – Relation of Actors in Residential Land Governance Process)

Overview of residential land distribution process in Muscat

The additional effort was extended to establish a clear overview of the land distribution process in Muscat (and Oman in general). Information about the process was requested during interviews and extrapolated from general document review. In addition to providing an exact outline of the overall process, the input from different actors provided a simple gauge of the varying degrees of 'informed awareness' with the overall process. In short, land administration officials proved to have an in depth understanding of land designation

and distribution. Also, it was observable that citizens have a general idea about the application process although they were sometimes incorrect about some of the details. Interestingly, citizens had quite a breadth of understanding of various issues related to land distribution.

The plot distribution process begins with public announcements in the national Gazette to inform citizens of an upcoming drawing for land entitlement ("mulk" in Arabic); the notice provides general guidelines and deadlines. Applications were previously only available through the post office, but have become available through, eOman.gov.om, the main egovernment website. The application is simple and requires little documentation. Once an application is submitted, a "registration" number is received by the applicant. Applicants then wait for the drawing for land title. In 2008, this took approximately six months from the time of application, but present estimates are upward of five years. If the applicant is selected to draw land, he or she is invited to the Ministry of Housing to receive a hand-cast number which matches the specific krookie number for the plot they will be allocated. The title is recorded and the applicant has approximately one year to pay the land fee to the equivalent of RO 1 per square meter, for a total of 600 RO since, in general, all awarded plots are 600 square meters.

Progress of land laws

Land laws concerning citizen (and non-citizen) tenure rights have progressed steadily since the 1980s through new legislation and amendments to existing decrees. Royal Decree 88/82 (an amendment to 5/81) establishes the administrative process for land distribution. It outlines criteria for eligibility, application guidelines, expectations for diligence and ministerial administrative responsibilities.

3.3.2 Presentation of Data and Key Findings

A review was made of the Basic Law of State for all decrees related to land administration (see Appendix D). In addition to organizing this collection of legislative information, the intention for compiling these royal decrees has been to allow for a comprehensive extraction of legally-based values that can be reviewed more effectively in two main ways. In the following section, the most significant of these regulations will be compared, firstly (where appropriate), to firsthand feedback regarding the enactment of these laws by official land administrators (primary data collected), and secondly, against the principles of good land governance and the concepts of sustainable land management (secondary data collected). The findings will be summarized at the end of this chapter. To start, a list of royal decrees set forth by HM Sultan Qaboos related to land administration was compiled (see Appendix C).

The primary data that was collected, along with supporting document review, has been analyzed along a few different axes (see Appendix G). First, the data was triangulated and distilled into a summary of the most relevant key issues in residential land administration. In the next sections, the data is compared with the principles of good land governance and outcome benchmarks that have been established as part of the

theoretical framework for sustainable land management. Collectively, these analyses aim to discern noteworthy points for consideration in the Omani land administration process; they also aim to provide reasonable ground to substantiate recommendations for proposed improvement in the Sultanate's land system.

Summary of Key Issues Pertaining to Land Laws Related to Plot Distribution

The feedback that was collected from administrators was combed for key issues related to residential land. Several recurring issues came up in the interviews that were conducted with government officials, urban experts and citizens. The most prevalent issues are the rapid urbanization and development that have come about due to population growth and the economic incentives for moving to urban centers. In Muscat, the population has grown from 632,073 in 2003 to 775,878 in 2010. This reflects an average growth rate of 3.2% in the Governorate--almost 60% more than that of the 2.04% national population growth (Census, 2010). The burgeoning populace has already put strains on the process for land provision and will continue to increase demand for residential plots.

The officials at all three of the agencies involved with land administration (i.e., Ministry of Housing, Municipality and Supreme Council) have highlighted the natural geographical limitations in the area. The mountains to the south limit growth from the edge of the Gulf of Oman to the north; development is confined to the stretch between these two natural boundaries. Land designation and planning is further challenged by the jagged topography that must be worked around, cut or leveled to create usable land and to construct infrastructure.

The competition for land compounds the issue of limited land due to natural topography. The Ministry of Housing and Muscat Municipality must work within the confines of land rendered to them by the Department of Defense, which prioritizes its own land allocations. Land administrators have pointed out that the military has reserved a big portion of land in Muscat for its purposes. This has limited the availability of space and increased competition between various industrial, commercial and residential land purposes.

Land officials also presented their insight regarding the difficulties in properly implementing plans in Muscat because of its current state of development. The lack of uncoordinated planning in the past combined with the fact that much of Muscat is already planned is problematic for undertaking urban development improvements.

> "You hope that in the region there will be some open area and we will be able to plan it properly. But Muscat is already planned. 95% is already filled. It would cost too much money and be too complex. For example, Has Al Had, is a new project giving land to investors in a planned way." (Al Shidhani Oct 2012)

Still, strategic planning can be useful for yet undeveloped spaces and urban rehabilitation projects within the Governorate. Incremental changes in land regulations and administrative procedures create a myriad of complications. An engineer in the Ministry of Housing presented the example of how the change in policy on

building heights creates new capacity issues on sewage, which now much meet the demand of four floors instead of two (Al Jahwari Oct 2012). A draftsman at the Ministry of Housing discussed the challenge with transitioning to an improved registry system. Although the data conversion from the Clarke 1880 to WGS 84 coordinate system is a necessary improvement, it does not arrive without the snags associated with any technical upgrade (Rashed Oct 2012). Changes in policy, administration and technical systems need coordination across multi-agencies; otherwise, they pose consequential challenges to the overall land administration system.

Figure 5 – Low Building Height

(Source: [left] http://www.destination360.com/middle-east/oman/images/s/muscat.jpg; [right] author)

Picture of dense areas that already have been planned with low-building height and pose a challenge for supporting increased urban density

Throughout the interview process, prompting about the issue of sustainability revealed that little is undertaken in the way of strategic planning much less sustainable land management. Most officials admitted to working toward agency goals that were not tied to any broader national strategy (that they were aware of, at least). The concept of sustainability was considered relevant and valuable, but its priority has been underestimated in Muscat land administration since the emphasis presently is placed on rapid land provision as decreed by executive authority. Focusing on rapid development--especially economic development--is not uncommon; but it will lead to issues of failing sustainability in other dimensions, e.g., social and environmental, that can only be forestalled only for so long before they reach critical points. Presently, there is a shift in ideology regarding the balance between various planning dimensions. The interview with an international development consultant conveyed the call for improved strategic consideration in urban planning in Muscat as a response to the foreseeable decrease in oil import revenue and current lack of economic diversification (Hauge Nov 2012).

Summary of analysis of Omani Land Law compared to principles of good land governance

Finally, to conclude this section, the overall legislation has been compared to normative prescriptions for good governance in land administration. As developed within the theoretical framework, purposes for general good governance were crossed referenced with nine principles for good land governance: Equity, Accountability, Transparency, Effectiveness, Rule of law and legal security, Civic engagement, Subsidiarity, Security and Sustainability set forth by Palmer et al. (2009). The findings from the semi-structured interviews have been organized within these land governance principles and summarized in Table 1.

Table 1 – General Analysis of Omani Land Law in Comparison to Principles of Good Land Governance

Equity	• Provision made in the law • Maintained formally • Cases of inequity brought forth for adjudication and/or enforcement • Punishment for corruption are not made public or openly discussed
Accountability	• Prescribed within the law • Agencies meet individual responsibilities, but there is a lack of inter-agency coordination, thus the absence of overall accountability to broader planning purposes (accountability, therefore falls singularly on the central authority, which has no prevailing oversight) • Lack of monitoring system keeps accountability from being accurately tracked
Transparency	• Transparency is emphasized in the letter of the law through the detailed specifications made for registering land and securing tenure • The lack of a public land registry, however, allows for a limited subset of individuals to access this information creating the potential for abuse
Effectiveness	• Individual agencies aim for institutional administrative efficiency and effectiveness • Lack of coordination between individual agency projects • Effectiveness is challenged by increases in demand and limits to resources
Rule of law and legal security	• Provisions are made for ensuring due process, including options for adjudication and appeal
Civic engagement	• Minimal provision for civic engagement • Minimal effort is made to inform members of the public; singular notice method
Subsidiarity	• Not expressed in legislation
Security	• Protection of tenure is secured formally
Sustainability	• Not expressed in legislation, though apparent in vision documents • Lack of strategic integrated planning to promote sustainability • Lack of coordination • Lack of established criteria or indicators for assessing sustainability • International monitoring of SLM is slim and minimal utilized

3.4 ASSESSING GOOD GOVERNANCE IN LAND ADMINISTRATION IN MUSCAT

3.4.1 Basis for Assessment

Land administration in Muscat can be reviewed in terms of its adherence to the principles that Palmer, et al. defined for upholding good land governance (2009). In this section, based on the methodology previously outlined, the expert interviews have been organized and triangulated to present an assessment of prevalent circumstances which do and do not demonstrate the observation of good governance principles.

To start, the principles of good governance are clearly reflected in the five purposes set out for good land governance by Palmer, et al. (2009). The core principles are cross referenced into each of the roles of good land governance presented in *Toward Good Land Governance, Reality, Theory and Policy* (Wehrmann, 2012) (see 'Theoretical Framework'). The data collected was then compared and analyzed.

3.4.2 Presentation of Data and Key Findings

To organize this analysis, the qualitative data collected from 16 interviews have been carefully reviewed for points that could be matched to the concepts of good land governance. The organized data set goes to highlight institutional perspectives regarding good governance practice in the land administration sector in Muscat. The following table summarizes the findings from expert interviews conducted in Muscat, Oman related to actual administrative practices (processes, perceptions, actions, common practices, etc.) for managing land in the capital. A detailed matrix of the qualitative data collection is provided in Appendix G.

Table 2 – Summary of Assessment of Good Land Governance in Residential Land Administration in Muscat

Prevailing Purpose of GLG	Examples of how it demonstrates GLG	Areas of improvement toward GLG
Providing (tenure) security for all, pro-poor, fair…		
Tenure rights and provision	Formal legislation for tenure rights	
Pro-poor housing provision	Priority for social housing	[This was not studied]
Security of livability and compensation	Practices for correctional/compensatory measures	
Housing finance	Loans for pro-poor development	Loans insufficient
Real estate market	Fair real estate market	Speculation in real estate sector, potential for unfairness
Efficient, effective…		
Interagency cooperation and coordination	Examples of good cooperation Integrated cooperation in redevelopment areas	Lack of planning authority Improve interagency coordination
Urban management	Strategic planning was superfluous earlier Benefits to organic, unplanned development Examples of study-based planning & outcome assessment	Lack of Strategic Planning Determining good land use Examples of lacking study based planning
Development	Project-orientated planning Robust infrastructure development	Perceived planning failures/errors
Consistency		Excessive exceptions rather than standardization
Corrective measures		Need for re-planning and its associated costs Reduced lack of information
Interagency system standardization, synchronicity	Prioritization of systems upgrade	Lack of centralize database Lacking information causes costly errors Excessive processing time
Plot distribution process	Attributes of effective and efficient application process	Attributes of ineffective and inefficient application process
Institutional assessment/ performance review	Process of annual monitoring	Lack of internal agency monitoring Executive monitoring feedback not internally disseminated
Application of planning tools and best practices	Computerization	Lack value for geography, demography Lack value for sustainable land management

Ensuring strong capacities…		
Individual agency capacity	Individual agencies are productive and capable	Lack of clear agency roles
Staff	Good technically capacity	Hiring favoritism and Omanization
Fighting corruption…		
Administrative corruption (petty corruption)	Strict adherence to formal policy	Lack of safeguards of corruption at administrative level Lacking transparency, no public hearing
Political corruption (grand corruption)	Action to dissolve agency due to corruption	Land speculation corruption Favourable distribution of lands
Sustainable…		
Social sustainability	Attributes of social sustainability	Attributes of lacking social sustainability Provision of land prior to provision of infrastructure Inadequate security considerations Increased demand for residential privacy supersede climate correspondence in construction Increased demand for land area New demand for expansive housing typology
Spatial sustainability	Common issue, not unique to Oman Principle for providing adequate land	High consumption of land Inefficient land use; 'patchy' development Excess distance and transport
Environmental sustainability	Climate change mitigation strategies (Environmental Investigation Agency (EIA) and UN regulations and monitoring)	Lack of climate change mitigation measures Population density: effect on GHG (CO2) No monitoring of environmental impacts
Durability, longevity		Planning is short term (5 year); lack of long term planning
Integration with other issues of development		Negative impacts on many other areas of planning
Equity		Lack of sense of equity
Purpose-driven and outcomes-oriented	Initiative regarding SLM in motion	SLM is rhetorical Failure to achieve intended outcome Lacking policy to ensure that distributed land is used for its intended purpose
Best practice: good governance	Some examples of basic good participation	Examples of poor participation

3.5 ASSESSING SUSTAINABILITY WITHIN LAND GOVERNANCE IN MUSCAT

3.5.1 Basis for Assessment

Assessing sustainability in the housing sector must go beyond the stereotypical "think green" concept for reducing carbon footprints and reducing the use of limited resources. It needs to incorporate a holistic review that conceives of housing as "both a physical and social system" through the balance of social, economic and ecological dimension (Sustainable Housing 2012). The exercise to take a holistic approach to assessing the sustainability of residential land administration in Muscat is complex. Several factors are involved, and furthermore the interaction of these myriad factors contributes to a complexity that will require further study and understanding. Guidance from theoretical discourse and best practice lends to a structured model with which land sustainability may be gauged. This section aims to review the top-down process for land management in Muscat against the framework of normative sustainable land management. It will also pave the way for bottom-up assessment by introducing a basic monitoring instrument to examine citizen residential needs. The review will be limited to social and spatial sustainability issues to provide a more focused assessment. The comparison will present those areas that uphold the principles of sustainability and those areas that may be considered for improvement. The analysis of the data herein presented aspires to provide a useful basis for making informed decisions toward reform of policies, activities and mechanisms that direct residential land administration to bring forth more 'livable' communities in Muscat, Oman.

Several salient issues were brought up during interviews with current and prospective plot owners. Responses from formal and ethnographic interviews revealed that citizens had housing provision needs and expectations with specific social and spatial dimensions. The feedback from these data summarized in the table to follow is organized relative to the empirical principles, criteria and concepts for sustainability adapted from literature.

The relevant findings have been analyzed further to demonstrate their relationships to concepts found in the prevailing literature. Based on the literature review, an amalgamation of sustainability concepts, criteria and principles has been evolved. Drawing on three prominent frameworks, the following table presents a cross hybridization of:

1. Principles for Assessing Sustainability (Smyth & Dumanski, 1993)
2. Criteria for Sustainable Housing (Golubchikov & Badyina, 2012)
3. Concepts for Social Sustainability of Housing (Ancell & Thompson-Fawcett, 2012)

The hybrid sustainability framework that is developed provides a useful manner to organize and cross reference the significant study findings.

3.5.2 Presentation of Data and Key Findings

The data collected from the regulatory review, interview data, survey data and researcher observation are organized and presented in a table according to the their association with the theoretical framework (see Table 3). The detailed qualitative data is available in Appendix G.

Table 3 – Summary of Salient Issues in Land Provision from Ethnographic Interviews with Plot Owners

Social	Affordability, credit system/access to loans for construction
	Provision of services
	Adequate residential and community privacy (especially related to gender-related privacy issues)
	Security (for children), adequate street lights, reasonable "mass" of inhabitants to prevent 'remoteness'
	Guarantee of tenure
	Confidence in land value as an asset and investment
	Ease and convenience for applying for tenure and conducting tenure-related administrative transactions (land management services)
	Amount of time to get title deed "mulkaya"
	Fairness/equity of distribution system (equal opportunity, no favoritism)
	Conducive to desired housing typology
Spatial	Space to build adequate spaces for traditional cultural functions (i.e. the housing "abaya" or veil)
	Space for children to play
	Proximity to family and other important social relations
	Proximity to work and other important day-to-day destinations
	Proximity to social services (health care, schools, local assistance programs, recreation)
	Community organization, representation and participation
	Maintains some traditional architecture and design elements, but also provides flexibility for more modern space functionality (i.e. extra kitchens or no formal room

Patterns for issues pertaining to sustainability and significant points in Muscat residential land administration were readily extrapolated and presented in Box 14. These key findings will be further analyzed the next section of this report.

Box 14 – Summary of Key Issues of Sustainability in Oman Residential Land Administration

1. Housing typology geared for expansive villas, little compact housing stock
2. Inefficient spatial planning, low population density
3. Land use planning that is not integrated with social and environmental outcomes
4. Residential land use is not tied to urban transportation planning
5. Lacking participatory process to allow for the assessment of the social and spatial housing needs and expectation of citizens; and the incorporation of those needs into a broader land use monitoring system

The collective impact of efficient spatial planning, compact housing design and development, and residential land use that is tied to urban transportation planning can contribute to reductions in consumption of land, as well as travel distances for economic and social activities. Interviewees almost unanimously expressed dissatisfaction with issues related to commute distances, and a sense of futility over the lack of alternative

options to driving. The existing sprawl that is on the rise has come about due to high demands on a current plot distribution system that fails to provide lands that can be readily used as desired by owners. Basic services are not ubiquitous and social facilities are not necessarily provided at the onset, which can hinder community development and intended land use (Young Foundation 2011, (Golubchikov & Badyina, 2012). This correlates to a high dependency on vehicular mobility and excessive driving patterns. Urban transportation should be planned in tandem to land use to yield more efficiency.

Furthermore, preferences for large housing plots and excessive easements have resulted in 'wasted' space that could be more effectively utilized. Comments from young plot owners reveal that certain characteristics of traditional housing typology may become obsolete. Large rooms traditionally reserved for hosting do not match the current generation's social engagement practices; most have not adopted the practice of hosting and prefer to meet with friends outside the house. On the other hand, plot owners held fixed expectations for large plot sizes and buffers from neighbors, as well as characteristics of "excessive" housing typology (e.g., villas with two fully equipped kitchens).

Figure 6 – Typical Villa in Muscat

(Source: http://mw2.google.com/mw-panoramio/photos/medium/9855382.jpg)

In all, sustainable spatial planning will call for the consideration of limited upward expansion, the provision of some compact housing stock, the re-planning of spaces toward greater spatial use efficiency, and strategic urban mobility planning. The reform in planning approaches, residential land policy as well as resident awareness will be needed to inspire more efficient use of residential lands (this will be presented in the recommendations section of this thesis).

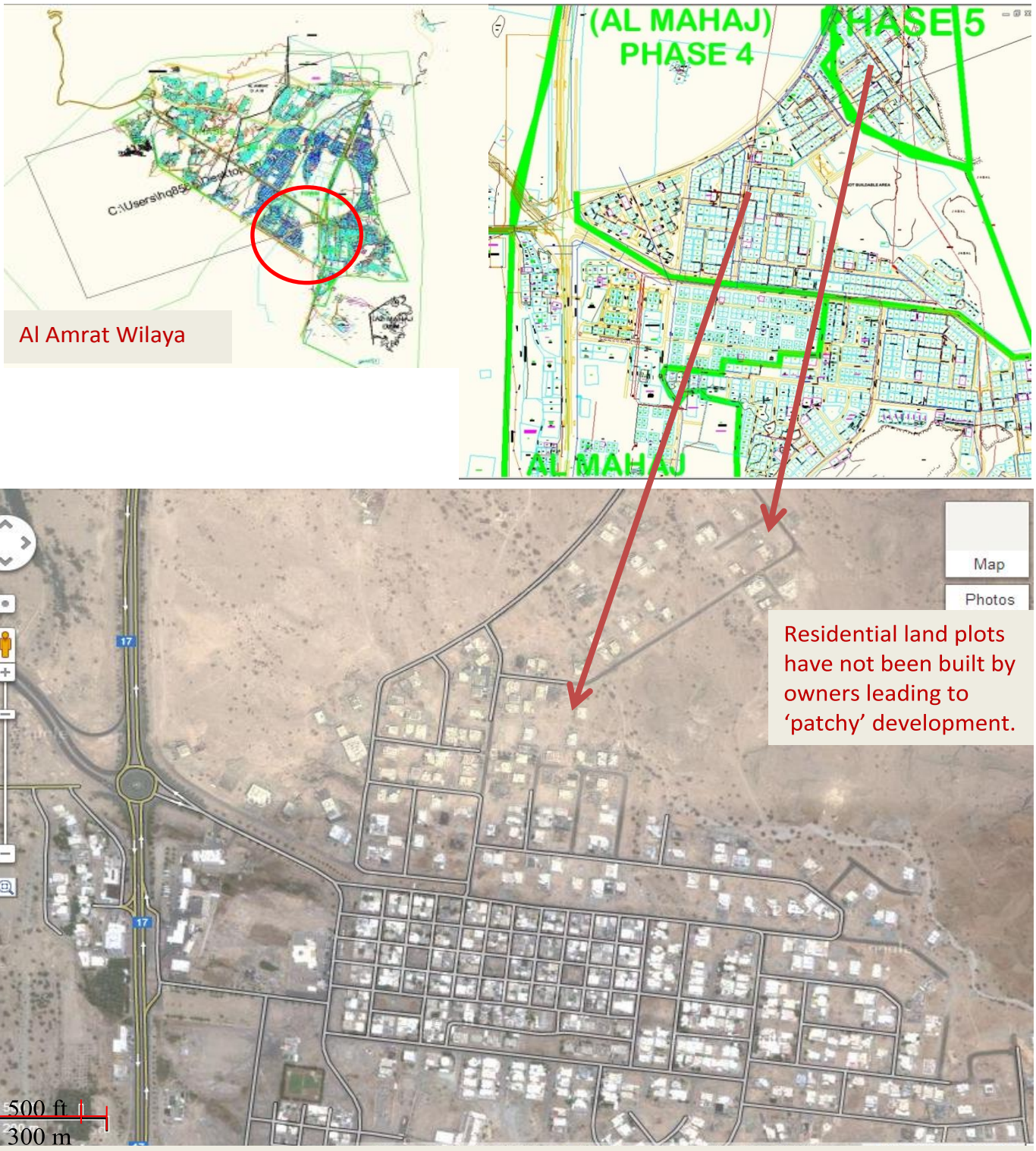
Significant challenges of spatial planning were made apparent in some examples of poor strategic land use. Officials reported that issues of social and environmental sustainability were compromised in situations where residential settlements were not adequately buffered from the flood zones ('wadi') or industrial land use (see Figure 4). A case in the Batinah region demonstrated that residents in the area have faced negative health implications due to industrial pollution from a plant that was installed too close to homes. There are plans to redevelop the area and compensate the residents, but the study has already taken 8 or 9 years without reaching conclusion or action (Shidhani Oct 2012). This case provides an argument for overall land use planning to be tied to social and environmental outcomes. The current focus on progressing large-scale projects requires consideration of holistic facets of sustainable development, especially those related to health and justice. Harvey (1973) and Soja (2010) specifically address spatial justice as core features of 'the right to the city,' and the protection of access and usufruct for all members of society (Golubchikov & Badyina, 2012). Integrating social and environmental sustainability into land use planning lends to more livable communities and a more sustainably-minded city overall.

Figure 7 – Residential Development Effected by Wadi

(Source: Ministry of Housing, Drafting Department; Rashed, 2012)

Lastly, the results present a significant gap in the land governance process that is requisite for achieving sustainable residential land use: inclusivity and participation for citizens. As per the focus of this study, the social and spatial housing needs and expectation of citizens are necessary inputs for making need-based housing provisions. One clear concern that was revealed by this study is the mismatch between plot location provision and preference. Since some social factors are not incorporated into the current plot distribution system, plots assigned to citizens in areas for which they have no intention of living often go unconstructed and unused. This has been a contributing issue in the patchy development in Muscat and requires redress (see Figure 7).

Figure 8 – Comparison of Intended vs. Actual Development in Residential Plot Area in Al Amrat, Muscat



(Source: [top two] Ministry of Housing, Drafting Department, Rashed, 2012: [bottom] Google Maps)

Social and spatial assessment from the perspective of residents will ensure outcomes are aligned with citizen requirements. Citizens should be widely included and empowered and enabled to participate:

> "(It is) also about fostering community capacity, building bonds and trust between responsible leadership and citizenship, and engaging people in the process of city building and realising their right to be involved and make decisions." (Golubchikov & Badyina, 2012, p. 39)

An additional benefit of participation is that data collected from inclusive citizen participation can build a foundation for a broader land use monitoring system.

3.6 SUMMARY OF ANALYSIS

The discourse on the issues of sustainability in Muscat is generally limited and often rhetorical. Some effort has been made to bring the concepts of sustainability into the foreground, such as the inaugural 2011 Urbanoman Conference themed around sustainable urban development. The results of this study, however, conclude that land administration agencies in Muscat do not have guidance or directive to pursue sustainable residential land administration. The topic will increase in relevance though, especially as growth continues in Muscat and demand for land, energy and financial support from the government rises. This chapter summaries five relevant findings regarding sustainable land management in the housing sector in Muscat:

<u>Issues within city and country context</u>
Limited lands available for housing (in Muscat); diminishing of oil-based economy; scarcity of water; centralized government (autocratic)

<u>Issues with land laws</u>
Low-cost distribution of residential plots; building regulations promote 'expansive' housing typologies (i.e., villas) and low population density that do not conform to standards of sustainability; tenure guarantees for women in doubt

<u>Issues within planning</u>
No strategic planning; lack of participatory planning hinders for the assessment of social and spatial housing needs and expectation of citizens; incongruence between land provision and social/spatial dimensions for housing needs

<u>Issues with land administration</u>
No capacity for sustainability; lack of interagency coordination; land spatial use is inefficient; Residential land use is not tied to urban transportation planning

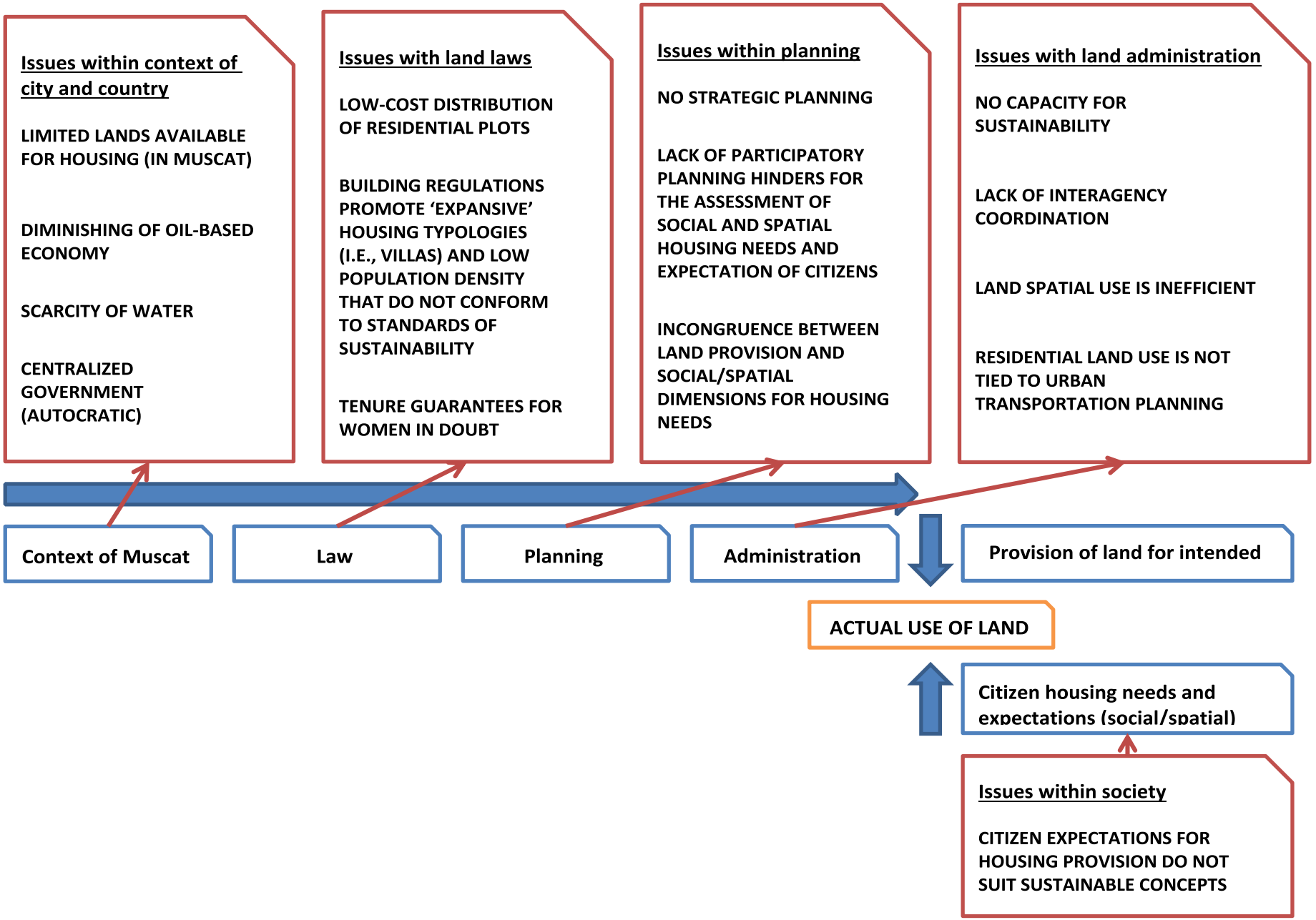
<u>Issues within society</u>
Citizen expectations for housing provision do not suit sustainable concepts

Overall, regulatory and administrative reform that promotes sustainability within good land governance is needed to address issues that have been identified. A good starting point is getting the process of developing the Omani National Spatial Strategy (ONSS) underway to establish a focal guiding instrument. The ONSS needs to be established within the framework for sustainable land management (especially in the housing sector), adapt an integrative planning approach, incorporate top-down/bottom-up participatory practices, and strategize measures for government reform as well as campaigns that encourage citizens to adapt behaviors

that support sustainability. Examples are available within the GCC. The Estidama project in Abu Dhabi is an exemplary best practice; also the Pearl Rating System may be a model for establishing criteria and indicators for sustainable land management for housing and undertaking consistent national monitoring. In Oman, the political will to develop a robust national strategy for development is present. Moving the process forward will go a long way to make residential land use effective, housing readily accessible and affordable, tenure rights more widely secure and contribute to making Muscat a more livable and thriving capital.

Figure 9

Issues in Residential Land Administration in Muscat



4. FINDINGS AND RECOMMENDATIONS

4.1 RECOMMENDATIONS FOR INSTITUTIONAL REFORM TOWARD GOOD LAND GOVERNANCE AND SUSTAINABLE LAND MANAGEMENT

The collection of firsthand accounts throughout this study provide a reasonable basis upon which to consider the institutional practices and opinions in Muscat that frame the strengths and weakness in adhering to the theoretical basis of good land governance and sustainability. Readily, it can be seen that a plethora of feedback on various areas of governance was given. In the remainder of this section, the key issues pertaining to governance in land administration will be presented. These points of consideration represent the significant findings for this thesis study.

The central research question inspires the study to collate its discovery into a series of findings—or 'results'—that contribute to theoretic discourse as well as practical application. The main research question was pondered in terms of the spectrum of findings it could arrive to. Those relevant areas of consideration are presented in the following questions:

- What recommendations can be made to guide SLM more effectively (especially as it relates to the Oman national vision)?
- What steps can be taken to improve good governance practices for RLA in Muscat?
- What steps can be taken to initiate improved monitoring for residential land administration (specifically related to housing provision) in Muscat?

This section of the thesis will provide an overview of the key findings from the analysis of the data collected over the course of this study. Three primary areas were sought out for findings: 1) institutional adherence to good governance and sustainable land management practices; 2) key social issues that factor into the broad concept of 'livability' in urban development; and 3) management of land use that contributes to (what is coined here as) 'sustainable spatiality.' The findings herein discussed are presented as an academic base from which to make recommendations for institution reform for general planning and administration over residential land. The recommendations herein presented in this final chapter aim to effectively guide further Good Land Governance and Sustainable Land Management in Muscat, Oman.

4.1.1 Central Authority

Constructs of the existing institutional framework play a significant role in overall governance. Oman, similar to most GCC states, is structured on a strong central government system. Centralization has some disadvantages in land governance in that transparency and inclusiveness--two core tenets of good land governance--are less likely to occur. The concentration of authority in a top-heavy government hierarchy potentially compromises positive attributes of good land administration, such as equity and civic engagement. Since challenging the governmental structure is not readily feasible (nor practical) a more reasonable approach is to build off the existing government practice to designate effective, autonomous authoritative agencies. The establishment of the former Supreme Council for Town Planning provided an administrative unit that was branched from the executive authority and provided some (though limited) decentralization.

However, the Supreme Council failed and was dismissed due to lacking mechanisms for accountability (a key mechanism for good governance). The Supreme Council of Development for the Secretariat of Muscat has since been formed. This new authority requires a specific directive to develop a national strategic plan. The entity should receive oversight from the executive branch, but also have internal measures for accountability to ensure there is no abuse of power. As a means to apply a more decentralized approach within a centralized governance structure, it is recommended that the new Supreme Council cosign greater autonomy to the Ministry of Housing and Municipalities.

4.1.2 Interagency Function

The new Supreme Council will serve as a central hub for the activity of several land administration agencies (e.g. Ministry of Housing, Municipality, Ministry of Transportation, etc.). As thus, it will have to stimulate a new degree of interagency collaboration to arrive to coordinated outcomes to its strategic plans. It will require a balance of political representation within the new Council to ensure the appropriate buy-in and output of the various agencies it coordinates. The myriad agencies must be afforded space for autonomy to contribute planning concepts from their areas of expertise, but simultaneously bound to the accord of their symbiotic inter-relational influence. The efforts of the multi-agencies should be orchestrated in a manner that is synergetic versus self-prohibiting (or worse yet, self-defeating). Residential land administration agencies should be coordinated fiscally and logistically to disincentive divisive competition, communication breakdown and non-collaboration.

In addition to the manner in which the new Council manages its various actors, it is important to reflect upon its authoritative position with the central government. A balance must also be struck to allow the Supreme Council to voice its expertise and serve as an intermediary between the agencies it represents and the executive powers. Unfortunately, one known issue is the tightening of executive oversight over the new Supreme Council. In reaction to the perceived corruption of the former Supreme Council, it is reported that the Sultan will preside directly over the new Council to manage its efforts. Instead of autonomy, this may contribute to greater authoritarianism. There will be fewer benefits related to 'decentralized' governance; for example, the limited scope in decision-making may persist, thus thwarting outcomes call for by citizens, even if the central governments societal intentions are benevolent.

4.1.3 National Strategic Planning

This new planning authority should be established on purpose driven strategic planning. The Vision 2020 needs to be consistently utilized to guide the state's long-term planning and development based on relevant national objectives. Presently, a shift is needed from incremental to a more long-term ‘mixed scanning’ planning approach (Etzioni, 1967). Integrated rapid urbanization needs to be laid out in a holistic framework for sustainable development (Al Gharibi Oct 2012). Vision planning also must be revisited and perpetuated to ensure periodic planning that recognizes adjustments that are made due to global changes and morphing societal needs. This requires improved participation from citizens, private sector and civil society, overall, and must traverse national, regional and local level boundaries. This is of importance in the case of residential land distribution to ensure that housing provision meets societal need and is used as intended. As issues of rapid urban growth and economic diversification continue additional strategies should be considered to maximize the potential of residential land use.

Based on best practices in Abu Dhabi, the national strategic review should outline stages of 'phasing' urban development, especially as it relates to housing. Three principles can be adapted to ensure effective development phasing. The first entails gauging growth demands accurately and making provisions at a matching rate. This reduces the negative implications of oversupply. It also helps to calibrate delivery of higher priority infrastructure and necessary housing stock to emerging needs and efficient use. The second and third principles apply well as recommendations for Muscat based on its present state of urban development. Key nodes should be identified and established as points of centrality from which development is built out. Simultaneously, the nodes should be interconnected by supporting infrastructure (Abu Dhabi Urban Planning Council, 2009). Muscat has few major points of centrality (Mutrah as a heritage point and Salalah for port activity), though smaller active districts exist (Al Ghobrah, Qurum and As Seeb). Infrastructure for vehicular mobility has been expansive and it may be assumed that it is a priority matter for the administration. However, critical thought related to issues of interconnectivity with residential areas (as just one issue of broader social and spatial sustainability) is needed to provide adequate rapid transit that is sustainable, accessible and convenient. The distribution of residential lands without roadwork provision is a clear example where these principles should come into action.

Spatial strategies may also consider enacting urban in-fill to rehabilitate ailing or wasted land spaces and encourage reuse of land. Further, the strategic designation of protected areas will prevent buildup of wadi areas, green space intended for preservation and unsafe residential sites down the line. In all, strategic planning must go hand in hand with performance-based assessment. Monitoring measures must be established and assessed on a routine basis. This will be discussed further in the chapter.

"Client feedback": But what if politicians and policymakers do not take their job of mandating and monitoring public service delivery seriously or are simply not in touch with the public interest? In those cases, citizens and citizen groups need channels to hold leaders accountable—in part through fairly contested elections but also through a wide array of other mechanisms to express their needs and concerns, such as interest groups, official consultations, independent research, and the media. This is the second channel of external accountability—from citizens to politicians and policymakers.

4.1.4 Inclusive and Participatory Governance

The new Council should seek out greater participation to adapt into its function the broader concept of inclusivity. Varying degrees of citizen participation may be enacted. The Sultanate and its officials will have to determine what is most suitable based on the likelihood for authentic participation in present-day society, but a platform for participation should be established at least to some degree to introduce citizen input. One of the primary means for citizen participation comes with the general election of officials. Holding fair elections serves as a mechanism for oversight of politicians and monitoring the public service officials they designate. In addition to establishing general accountability, elections provide a channel for citizens to voice interests, expectations and concerns and provide some degree of leverage to ensure those matters will be addressed.

> ***"We have a lacking of public awareness of sustainability. How sustainable practices can be acknowledged by people and local decision makers. Sustainability we have heard about it and what it means, but how it is executed is not well known. If we ask someone, they will say they've heard about it, but they don't know. It's an issue of public awareness of their future and the next generation… how they will live in this kind of environment, especially when the crisis of energy. This kind of remedy is crucial even now. We have to start in this time. Delaying makes the local government in trouble. We have a limited time until oil depletion. We already have… the crisis of energy is ahead. Delaying is not an option."***
>
> *(Al Gharibi Oct 2012)*

Participation is a two way street. Not only should members of the public hold their officials accountable, but citizens must also achieve reasonable capacity in their own rights. This entails efforts for being adequately informed. The top-down process to inform should be dually met by the bottom-up organized effort to be informed about and included in the planning process. The Muscat Municipality encourages two-way communications directly through its website, for example. In the scope of this thesis, there is an observable gap in the degree of citizen awareness on issues regarding sustainable residential land planning. There is room to increase citizen participation for the dual effect of helping inform citizens about better practices for distributing plots sustainably, as well as for reducing the demand and political pressure on agencies to make land provisions that are not economically, spatially, socially or environmentally sustainable. Presently, the Ministry of Housing manages an excessive demand for the provision of residential plots. This has not only created a backlog for more than 100,000 Muscat residents, it has contributed to the poor practice of distributing plots without adequate service provision as a means to quickly meet that demand. Failing to provide serviced plots has led to land use that is inefficient and does not contribute to sustainability. Numerous plots go unconstructed for years as they await basic services; those lands do not succeed to provide habitation that promotes societal progress or economic development. Having a better informed populace will ease unreasonable demand on land administration agencies and guide more effective use of residential land plots by citizens. In the example provided, informed citizens may agree to prerequisites that plots have basic service provision before distribution because of its greater positive effect. Muscat should aspire for an educated society that will thrive over time to achieve urban spaces that are just, zero impact, healthy, 'livable' and adaptable/conducive for social progress (based on recognized global-capital paradigms).

The issues of inclusivity also should be taken into consideration. It is not uncommon in the MENA region for the growing population of migrant laborers to be marginalized. Seeing that Muscat is composed of almost 25% non-Omanis, attention needs to be given to constituents who may be less advantaged, commonly through indirect discrimination and social exclusion.

"Developers seeking to achieve these voluntary standards must introduce improved practices in the design and construction process. The construction of roads, water supply systems, wastewater treatment plants, power supply networks, and education and health facilities resulted in significant improvements in the quality of life of their citizens."

(Serageldin, 2012, pp. 159-160)

4.1.5 Private Public Partnership

In tandem to improving citizen participation, the case of Muscat calls for improved private public partnership. Public monopolies have been on the decline. For example, an effort to restructure the market resulted in electricity service provided by "a closed joint stock Omani company" (Muscat Electricity Distribution Company SAOC) under Royal Decree No. 78/2004 (MEDC, 2013). Continued reform of market structure would contribute theoretically to an increase in service providers, greater free market competition and improved service provision.

Private public partnership should also be considered in the residential construction sector. Collaboration with private developers could be an effective approach to provide housing areas with comprehensive infrastructure and community amenities. Findings from document review and expert interviews revealed that such projects have been undertaken in the past (e.g., housing for employees of the Petroleum Development of Oman (PDO)) and recently Integrated Tourism Complexes, the Wave). Land administration officials expressed support for government-private sector development collaboration. Private developers would present demands for adequate infrastructure for their construction sites, and likewise residential land regulators could set standards for 'green building' and 'livable cities' while regulating fair pricing mechanism to ensure affordability along the socioeconomic spectrum of Muscat residents. A variety of housing units will encourage buyers to select dwellings best suited to their needs within their price range.

Based on experiences in other GCC states, recommendations can also be made to boost PPP as a way to increase market demand which can drive urban development.

"...the private sector has to share in the development with the government. The private sector is absent. If we make a consideration that the government share the development with a private sectors, with multi kind of residential buildings (multi use) it would encourage people to select buildings that are appropriate to them… house size, how many bedrooms, affordability… this is the kind of change that should be done. And the government should pay part of this. If we calculate how much the government loses every year for the highways and the electricity lines. If someone builds 5 km away then you have to connect all those things… these expense will be more and making people living in a small environment. And this would fulfill sustainable criteria to reserve resource for further generations. Local authorities need to think about it."

(Al Gharibi, Oct 2012)

4.1.6 Policy Reform

Re-enforce Just Tenure

Good governance reform requires the review and reconsideration of existing administrative and regulatory policy. A comparison to RD 88/82 to the existing online plot application process confirms that little has changed administratively, but some progressive changes to eligibility have come about. This study has found that tenure rights have continued to expand since the right to usufruct was decreed. Rights for various degrees of ownership of freehold property was granted to GCC citizens in 2000 (RD 20/2000) and to expatriates in 2004 (254/2004) (BTI, 2012). The strategic expansion to tenure right will help to promote the real estate market as foreign investors are gradually given land rights; it will ensure to keep a watchful eye to protect the security of access (e.g., affordability) for all Omani citizens. Land ownership rights for women took longer to arrive; women were granted equal tenure rights only in 2008 (Royal Decree not accessible). An interview with one Ministerial official reveals that this tenure right might not be so secure since there is some thought about rescinding women's land rights under the pressure of demand to provide land (Al Amri Oct 2012). Failing to uphold tenure security for women compromises principles of social justice and may have impacts on broader national goals. Alternatives to such proposals can be considered, such as increasing the eligibility age, limiting the number of plots per family or limiting eligibility to married couples/family units.

Issues of tenure security for underprivileged citizens persist even though Oman does not have as bleak a tenure security situation as in other parts of MENA. While there are no slums in Muscat, analogous concept of discrimination of the poor still takes place. Since general citizens are not recognized within the planning process (no public hearings, participation or general information regarding planning issues) the poor are subject to being taken advantage of in issues of land compensation and tenure. In some cases, officials offer to buy land from the poor because they are privy to inside information regarding potential land property value (e.g. land value will sharply increase due to upcoming planning projects which have not been made public). In other cases, residential plots are designated and distributed to select privileged individuals. This was reportedly the case with certain new plots given at the time when the decree to give land to women was enacted and prominent families were allocated advantageous plots with greater potential value. In the most drastic of cases, eminent domain is enacted and the poor are not properly compensated for lands which are taken from them, or at least they are not adequately compensated with equitable land. Monitoring the number of filed complaints regarding unfair compensation may serve as one indicator of equity.

Shift from Low-Cost Land Distribution to Free Market Real Estate Sector

In the long run, land eligibility criteria will have to be adjusted. The national provision for land allocation cannot be sustainable for long. Currently more than 100,000 residential plots are pending distribution to awaiting Muscat residents. Eventually, all land available for residential use will be distributed. Providing information about the course of action regarding the end of land provision will help prepare citizens and residential land investors to make better decisions regarding their lands. One approach may be to set criteria for land eligibility to applicants who can demonstrate capability and intention to construct residences for personal use. This will help to diminish unused plots, decrease land grabbing and temper land value increases based on speculation. Furthermore, individual land owners will be more likely to care for and put to use land plots in which they are personally invest (to some reasonable degree). The disadvantage to this proposal is

how it impacts the provision of land to low income citizens. This, however, can be countered with well-structured need-based programs for home construction loans. Another option might be to set a statute of limitation to 'mulk' (title) for lands that go undeveloped. In this scenario, land that is disseminated for the purpose of residence construction but not build within a set time frame would be returned the distribution pool for reallocation. This would ensure that opportunities for intended land use are taken, and plots are not locked into states of disuse, as is the case in Rumlah (Hauge Nov 2012). Of course, best practices should be reviewed to ensure that loopholes are closed (e.g., such as partial build-ups) and that appropriate compensation is made for those whose land is reallocated. Lastly, literature also suggests the elimination of policy for free land provision, pointing to examples where such policy contributes to "wasteful patterns of urbanization that in turn has led to high operating costs for municipal governments" (Serageldin, 2012, p. 160).

While literature points to the negative implications of free land provision, at the basic level, the requirement that housing be affordable is in line with the concept of social sustainability for habitation (Ancell & Thompson-Fawcett, 2012). The present-day residential plot distribution system addresses this issue by making land extremely low-cost for each Omani citizen. While this puts land within the reach of almost every Omani, there are some repercussions that are important to mention. The low investment for ownership creates no drive or incentive to put the land to immediate use if the plot recipient does not have other motivators. Land which is intended for residential use and subsequent community and local economic development instead remains in stasis, being neither used nor appreciating in value (in the case of undesirable allocations) as more peripheral lands are sought to appropriated to others. An exploratory phase should be undertaken to set up the parameters to seed a healthy and thriving real estate sectors. A shift into a strictly free trade real estate market may be helped along, as previously mentioned, through well-monitored private public partnerships.

Tie Distribution of Land to the Required Provision of Adequate Infrastructure

Policy regarding land distribution should be tied to adequate infrastructure provision. The strict adherence to the provision of land that is serviced with comprehensive basic infrastructure ensures that land can be readily used for its intended purpose without delay. The *Concepts for Social Sustainability for Housing* points to housing quality as a basic need, but seems not to include the provision of basic housing-related services. Residential developments must incorporate planning services (e.g., water, sanitation, electricity, etc.), which is highlighted because it has been a major shortcoming in the residential plot system. Policy needs to underwrite the joining of land and infrastructure provision. Also, administrative changes should be made to coordinate land surveying and cadaster mapping in tandem so as to comprehensively study and provide adequate services prior to land distribution. Tethering plot distribution and basic infrastructures will help to reduce strain on the land administration system and high costs to the Municipality to provide services to less dense communities.

Transportation infrastructure is a significant matter in residential land use. The provision of roads and highways has advanced greatly in Muscat, yet the planning for land use and transportation are not joined. It has been suitable until now to establish major transportation infrastructure on a need basis. The perception of officials is that the focus on highway development has supported important projects, such as the port in Sohar, the airport and inter-regional connectivity. Expanding transport routes between large-scale projects has led to deliberation about high speed rail between UAE for the transport of shipped products and trade.

Similarly, transportation planning needs to increase its focus on internal mobility efficiencies. As both travel distances and dependency on automobiles continue to rise, coordinated efforts between residential land administrators and transportation planners need to align before there are costly economic, social and environmental impacts. Two interviewers mentioned evolving talk on mass public transport and the possibility of a metro system in Muscat. Policy should be written to make sure that urban transportation master planning is weighed in combination with residential land planning as the Sultanate envisions a sustainable future.

Promote Greater Urban Density

In addition to minimizing 'wasted' land use, a land use framework that promotes more compact urban development can be brought about by changing targets for urban density. In theory, compact housing would help to increase housing stock, make spatial use more effective, minimize travel distances, save energy, decrease ecological footprints, bolster local economic development and make more efficient use of government funds. Partnerships with private sector developers can stimulate interest in new, exciting compact housing developments within the capital. A balance must be struck between the benefits of compact housing and other important issues, such as citizens' cultural perceptions (such as privacy) and urban structure frameworks (such as building height limits). One primary benefit will be reducing the high consumption of land due to patchy development. The current land distribution system and a contemporary trend for expansive housing typology have continued to push residential settlements into more peripheral areas and away from urban centers.

High land consumption can also be reduced through revision to existing building codes and standards. Historically, Omanis inhabited compact-styled courtyard settlements naturally engineered to be climate responsive. Greater wealth paved the way for Arabic House-styled homes in the 80s and for villa-style housing today. The building code for single villas does not allow for construction on more than 40% of its area; it also defines large space provision for easements and setback. Overall, a lot of space is 'wasted', that readily could be put to good alternative uses (e.g., open space). Modern building regulations were not established as a means preserve the cultural housing traditions of Muscat citizens. Rather, they appease unsustainable demand for 'excessive' modern housing standards that do not fit the context of the desert climate and natural resource limitations that define day-to-day Omani life.

> ***"These kind of standards don't make it more dense, or reserve land …(they) force people to have more… they actually encourage rapid consumption of land and let people to depend (sic) on their automobile, rather than making them think about walking or cycling."***
>
> *(Al Gharibi Oct 2012)*

4.1.7 Monitoring

Formulating strategic development plans for residential land use and coordinating the multiple agencies and actors involved is complex. To ensure efficacy, national interagency monitoring systems need to be in place. Presently, the Muscat Municipality and the Ministry of Housing have reported no monitoring initiative within their agencies or across agencies (only upward report takes place from the Director of the Ministry of Housing

to the central government councils or 'Shuras'). Firstly, an institutional-wide value must be instilled throughout the central and administrative agencies to foster the establishment of comprehensive monitoring. Then, as a monitoring system is being laid out, it must be robust enough to account for all dimensions: economic, social, spatial and environmental. Participation in the monitoring process, too, must be comprehensive. This includes performance evaluation of agencies and staff, as well as the assessment of needs across citizens and private sector, and the expectations or standards set forth by civil society. Capacity of the present state of land management in Muscat region must be inquired (i.e., Does Muscat have sufficient capacity to administer land adjudication, registration, etc.?). Evaluating the administrative branch, starting with the new Council, for its capacity and outcomes will provide transparency regarding its achievement and areas for improvement.

One of the specific outcomes for this thesis is the establishment of a basis for monitoring residential land administration in Muscat. Looking specifically at people's housing needs, it is important first to determine specific indicators to gauge residential land use in regards to economic, spatial, environmental, social and cultural dimensions. As part of this study, a basic inventory was created to help guide the determination of social and spatial indicators that could be used for monitoring residential land use. Based on interviews with experts, documentation and researcher observation, a set of criteria was developed related to housing typology, resident spatial use, family and community relationships, culture and tradition, and day-to-day life habits. Based on these criteria, an online survey was developed with of basic demographic questions, opened-ended questions and Likert-scaled questions. The aim was to elicit broad, uninfluenced feedback from survey respondents regarding the relevance of issues and factors related to residential plot distribution and use. The survey provides a basic assessment of housing needs related specifically to: housing typology, daily routines, culture and tradition, location preferences, land use, community expectations, administrative efficiency, and sustainability (see Appendix H).

The questionnaire was distributed to students attending the German University of Technology in Muscat to ascertain pilot responses from forthcoming plot applicants. The main findings from eight respondents are summarized on the next page:

Box 15 – Key Findings from Pilot Citizen Survey for Social and Spatial Issues Related to Housing Provision

Housing typology

- Meets expectations for privacy and tranquility
- Climate responsive large plot

Location and land use

- Separated residential area within proximity to commercial districts, important services and recreation Scaled mobility
- Investment opportunity and potential
- Living space and family planning Home as space of self-expression

Daily life

- Service and infrastructure provision Open space
- Safety

Culture and tradition/Community

- Sense of community identity
- Preserve tradition of Omani neighboring

Administration efficacy

- Lack of option to select plot location
- Lengthy process
- Less than average awareness of land distribution process
- Less than average perception of efficacy of land distribution process
- Perception of favoritism, preferential provision Inclusive of low income citizens
- Lacking service provision

Other

- Challenges due to rapid urban growth

The brief exploration into social and spatial residential land factors present a starting basis for further study since the survey was not distributed widely and the response level is relatively low. What is clear is that there are relevant social and spatial (as well as other) considerations that need to be assessed to ensure that residential land use meets resident needs and is wholly sustainable.

The survey demonstrates main issues that can be monitored through the use of indicators. The following are some of the main areas for assessing social and spatial resident needs:

- Plot location: comparing the capacity to match plot allocation with applicant preference
- Residential privacy: comparing perception of adequate privacy with sustainable spatial usage of land (easements, housing typology)

Other quantitative analysis can be made directly from data to monitor social and spatial residential land use, such as:

- Proportion of constructed vs. unconstructed plots
- Percentage of plots owned by women vs. men (proportional to population gender split)

Such indicators can gauge residential land use in regards to social and spatial dimensions while maintaining focus on sustainability practices. Based on the findings of the pilot survey for forthcoming plot applicants, a list of issues was developed which may serve as a basis for developing indicators (see Appendix I). This monitoring effort conforms to the principles of good governance (inclusiveness and participation) to utilize assessment as a two-way, positive feedback loop. In one respect, land administrators should keep resident needs and expectations at heart in the planning process, and make them the outcome basis for gauging successful housing provision. On the other hand, resident perceptions that do not promote sustainability should be challenged through education. This dual effect of monitoring can inspire policy and administrative reform, as well as societal behavioral change that lends to sustainability.

An additional recommendation is presented for monitoring residential land toward greater sustainable use. Based on literature on GCC development, Muscat might consider the institution of fiscal accountability measures. In this case of other GCC states, cities are required to pay for capital investments, not the central government (Serageldin, 2012). While the case in Muscat is different because it receives an operating budget by which it must determine its capital projects, those projects go uncoordinated by various agencies because budgets are not tied together in any way. Developing a system in which the various public sector stakeholders are required to make financial contributions to a singular project could ensure that the various development sectors are more evenly coordinated and implemented. Additionally, performance-oriented budgeting in Muscat land management may incentive greater efficacy and outcome-based achievement on part of individual agencies.

Overall, the development of a comprehensive monitoring system to ensure that planning measures meet their intended outcome and to perpetually assess planning needs that change over time or due to circumstance. A comprehensive, inclusive monitoring process needs to include measures for internal capacity evaluation, citizen need assessment and external accountability. Coordinating with international monitoring organizations may prove useful in developing and maintaining an effective national monitoring system that conforms to global standards (see Annex for a summary of the Worldwide Governance Indicators (WGI) assessment for Oman).

4.1.8 Controls for Corruption

Issues of corruption are not prevalent in Oman land administration; still, strategies should be undertaken to reinforce the anti-corruption apparatus. Patterns of privilege need to be identified and dealt with. Transparency can be improved to hinder opaque transactions that create unequal advantages or benefits for the few. Additionally, the land title registry should be made public domain to provide equal access to land

information and the third-party, 'watch dog' activities of civil society. Indicators, such as barometers for real estate values, may be monitored, to help authorities regulate intentionally-induced anomalies that may burden the land sector, such as abnormal spikes in land value due to speculation. These small preventative steps help to subvert corruption and level the residential land sector.

4.1.9 Effective Reform

Reform must be managed. All shifts toward improved governance require changes to ideologies, time for transition and overall will to bring them about:

> "One of the lessons of governance reform worldwide is that moving to inclusiveness, accountability, and participation takes time, because it involves changing traditions and confronting privileged interests." (Deininger, et al., 2012)

Change does not come without some degree of resistance, as well. Especially in the case where participation is increased, greater input of popular opinion is likely to result in divergences that may lead to conflicts of interest. It will be important for the Sultanate to continue to make headway toward good land governance in a fashion that maintains stability in the popular and political arenas.

Closing Thoughts Regarding the Recommendations for Reform
Overall, for the new Supreme Council to remain viable and to achieve its directives it must have a stronger basis in the principles of good governance. The new Supreme Council should be founded on the ideology of being a value- and purpose-driven agency that pursues the needs of broader society; it should adapt principles of internal monitoring and inherent checks-and-balances to ensure its ethical and effective function. It must serve the Sultanate by providing broad national strategic planning that work symbiotically with regional and local plans. This sort of strategic planning needs to be integrative, to consider the long-term outlooks and to value balance for development along its multiple dimensions. Economic development should be carefully considered for ecological impacts and strategically tied to better spatial planning. Progress toward social well-being and general quality of life are important as well, especially to preserve and promote culture and tradition (this will be discussed further in the findings related to social sustainability). Holistic strategic planning must be coopted with an effective monitoring system using reliable indicators to gauge citizen needs for residential land use; it should provide a feedback loop for regulatory and administrative reform. Mechanisms to disincentive unfair practices and to uphold accountability must be boosted. And, finally, reform must be managed in a manner conducive to its own sustainability, through prudent implementation.

Summary of Recommendations

For Institutional Reform toward Good Land Governance and Sustainable Land Management

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Designate Authority for Strategic Planning

- Establish national planning body

Decentralize Governance

- Decentralization of government
- RLA interagency coordination

Strategic Integrative Planning

- Development of the Oman National Spatial Strategy (ONSS)
- Integrative approach
- Sustainable residential land management approach
- Shift from incremental to more long-term planning
- Urban in-fill strategies (how far can this be implemented)
- Protect critical lands

Increase Capacity

- Hiring more staff with training in integrative, sustainable planning experience

Stimulate Private Public Participation

- Encourage Private Public Partnership in residential construction development
- Set sustainable construction standards
- Regulate profit margin to maintain affordability
- Bolster private sector and market demand

Adapt Inclusiveness and Participation

- Greater citizen participation
- Consider marginalized communities

Reform Policy

- Uphold tenure security
- Minimize land waste and patchy development
- Increase urban density
- Shift from low-cost plot provision, to one that requires greater personal investment
- Require adequate infrastructure and service for residential land distribution
- Integrate land use with urban transportation planning
- Revise building codes and standards to support compact housing options
- Distribute only to those ready to build
- Require intended land use (and construction) to secure tenure

Establish Monitoring

- Establish robust, national, interagency-coordinated urban development monitoring system that considers economic, social, spatial and environmental dimension.
- Assess and monitor resident needs and expectations
- Establish fiscal accountability and performance-oriented budgeting
- Develop external accountability mechanisms especially greenhouse gas emissions

Prevent Corruption

- Increase transparency; make land registry public
- Identify privilege patterns and stem them

Manage Reform Effectively

- Provide adequate time and tolerance for effective reform
- Tolerate expected resistance in participation process

5. CONCLUSION

The study of residential land administration in Muscat, Oman is ripe with matters worth exploring and discussing. In a country where relatively recent economy boom has paved the way for rapid development, Oman is a location where urban planning can be both exciting and leery as the country continues to enter the globalized arena. Integrative national planning must make careful consideration of prosperous economic development opportunities as well as those that uphold the traditional context of society. All the while, visioning must take a normative stance and seek approaches to development that contribute to social justice, ecological stewardship and general quality of life. Thus, adapting 'good governance' and 'sustainability' into planning metrics is an important affair as the Sultanate continues its nascent development trajectory. As a specific area for study, residential land administration, especially concerned with social and spatial facets, was undertaking for this thesis research.

Theoretical Framework

After an exhaustive literature review on both good land governance and sustainable land management, concepts and standards by particular authors were selected for the theoretical framework. The Principles for Good Land Governance (Palmer, et al., 2009) draw on the intent for good governance to steward social justice, and draw on concepts of sustainability to inspire 'livability' and quality of life. In that effect, this theoretical model complements the social dimension of this study and supports governance reform toward greater effectiveness in land management. In the case of the theory on sustainability, the FESLM Working Party in Nairobi provided the most relevant set of guidelines for sustainable land management. In combination with the UN-HABITAT Criteria for Sustainable Housing (Golubchikov & Badyina, 2012), and the work of Ancell and Thompson (2012) related to social dimensions of housing, these models provided a relevant basis by which sustainability could be compared in the Muscat context.

Analysis of Land Law

A review of the legal framework for land management provided the initial step for analysis. The land laws pertaining to residential land administration were cross referenced with primary data collect from official and experts. The following four issues were identified: 1) rapid urbanization triggering increasing demand for residential land and its supporting infrastructure; 2) limited land in the metropolitan area of the capital due to the nature of the topography and the conservancy of land for military purposes; 3) policy-based building standards do not reflect international standards for sustainable housing; and 4) institutionally, agencies are not inter-coordinated toward well-established strategic planning goals.

The key issues that were brought forth during expert interviews were compared to the guiding legal framework for residential land (i.e., Oman Land Laws) and compared to selected principles for good land management from literary review, specifically those defined by Palmer et al. (2009). The review rendered the following general analysis (see 'Analysis of Data' section for full detail):

Principle for GLG	Assessment, main rationale
Equity	Adequate; some social progress
Accountability	Inadequate; on an independent basis, not coordinated across stakeholders
Transparency	Inadequate; cases of illegitimate activity, no public record
Effectiveness	Inadequate; independent-basis, not coordinated across stakeholders
Rule of law and legal security	Adequate; governance is formal
Civic engagement	Inadequate; lack of inclusiveness and participation
Subsidiarity	Inadequate; maintains centralized, top-down authority
Security	Adequate; provision in law
Sustainability	Inadequate; not adapted into planning

Assessment of Good Land Governance

A starting basis for the assessing of residential land administration in Muscat included a review of tenure, effectiveness, capacity, corruption and sustainability, defined as the collective focal purposes of good land governance in land administration as outlined by Wehrmann (2012). Exploring the process of land management, especially as it relates to plot distribution in Muscat, along these dimensions helped to establish the status of good governance in Omani land administration.

Tenure was deemed as well-defined and protected, both within regulatory policy and administrative practice. Provision is made for low-income households. Also, members of society who may be considered by Western standards as marginalized regarding land rights (i.e., women) have gained tenure security within the last five years (although the protection of this right was challenged by one official). Overall, the institutions for land administration uphold strict observance of tenure rights that have been well-developed within the Land Laws.

Administrative effectiveness was considered to be good, but only to the extent that efficiency was measured by individual agency. The lack of coordination between lateral agencies and the pending existence of an authority for strategic planning weaken the interactivity between Ministry of Housing, Muscat Municipality and external infrastructure service providers. **This finding leads to the recommendation to establish a national agency for strategic planning in Oman. Such an entity would help align development efforts across the governorates and wilayats, and set forth policy to uphold national visions and objectives as they relate to land use. This entails a secondary endorsement for the development of a long-term national spatial strategy that considers housing along its social, economic, and environmental dimensions in an integrated fashion. In essence, this recommendation parallels the fulfillment of the components within the Oman Vision 2020.**

The issue of capacity can be considered as adequate along the lines of technical ability. However, several officials discussed that limited budgetary allocations reduced agency-wide capacity to implement planned projects in an integrative manner. Also, the issue of capacity should be considered in light of sustainable practices; in the regard, there is a clear lack of capacity both at the institutional and personnel levels. **There is a call for capacity-building to introduce concepts of sustainability and 'the livable city' to the institutional planning sphere as well as the mentality of land officials.**

The issue of corruption is frequently difficult to observe and study. The earnestness of interviewees granted certain insight to actions and unfolding consequences that point to recent activity of both petty and grand exploitation. In the case of supposed grand corruption at the level of the former Supreme Council, corrective action was taken by the Sultan to disband and reassemble the entity. This demonstrates the political will and adequate authority to curb high-level fraud in the land sector. **A further recommendation can be made to adapt policy which disincentives land exploitation and effective auditing mechanism that safeguard against corruption.**

In all, these governance issues present opportunities for measures of reform. Referring to guidelines for institutional reform in literature, recommendations for reform in the form of policy change, agency restructuring and the installation of effective monitoring mechanisms have been developed. **One such recommendation is to decentralize the administrative structure. This would grant greater individual accountability to governorate-level planning agencies, remove restraints of centralized authority and stimulate more inventive approaches and practices.**

Assessment of Sustainable Land Management

Sustainability entails a broad spectrum of factors. The scope of the study was reasonably limited to explore the aspects of social and spatial sustainability. Models for sustainable land management (i.e., Framework for Evaluating Sustainable Land Management) were coupled with those specifically for sustainable housing (i.e., UN-HABITAT Criteria for Sustainable Housing, 2012) to establish a basis for the analysis. A two-tiered process for data collection was set out. From the 'top-down' angle, criteria for sustainability were evaluated from a review of land regulations and from qualitative interviews with land officials in Muscat. Additionally, interviews with citizen plot owners were conducted to provide a 'bottom-up' slant. A survey to determine social and spatial residential issue was disseminated to a limited number of forthcoming plot applicants as an additional conduit for collecting information that could be useful to this research. The data collected were distilled into five main issues of sustainability that arise in the context of residential land administration in Muscat, which are discussed below.

Present-day housing typologies in Muscat do not contribute to principles sustainable land management. The issue arises dually from the public sector and from society. Building standards make allowances for expansive villa-type dwellings and do little in the way of promoting compact housing standards. At the same lines, the expectations of today's land owners (and forthcoming plot applicants) reveal an inherent preference for larger homes. The laxity for constructing large residential dwellings does not conform to traditional/customary housing typology, climate responsiveness, energy conservation or maximizing the productivity of the limited

land available in metropolitan Muscat. **Recommendations to address this include sustainability capacity-building at the institutional level (as previously mentioned). Also, private public partnerships can be formed to drive the construction of sustainable compact housing development. Finally, public awareness around the subject of sustainability can be prompted via effective informational outreach campaigns and public education.**

The population in Oman relative to the land size inherently makes for a low national population density (9.2/kilometer squared; ranked 220th in the world) (Wikipedia, 2013). Though the capital serves as the residence for 28.0% of Oman's population, the density is still a mere 222/kilometer squared. Though density is low on the global scale, limits on land availability in Muscat, as well as the negative implications of non-conservation, should inspire more efficient spatial planning. **Planning should consider adapting best practices in compact planning to promote conservation of scarce resources and to minimize the development of costly, expansive infrastructure. Building codes can be revised to strategically increase vertical density without going to extremes that might compromising the traditional urban form that is distinct to Muscat's identify and heritage.**

Integrated planning is a stipulation for sustainable land management. Presently, land use planning is not conducted in a manner that utilizes a feedback mechanism with social and environmental outcomes. Left unchecked, planning efforts may yield unintended negative consequences or trigger societal lash back. One prevalent issue is the disconnection between residential land use and urban transportation planning. This has sparked a high reliance on vehicular use and an increase in travel distances, and conversely an utter absence of mass transit in Muscat (i.e., taxis are the only form of public transportation). **Land planning should be closely tied to transportation planning in the capital. Specific regard should be given to residential areas to promote proximal access to work, recreation, social facilities, etc.**

Lastly, there is lacking of participatory planning. Without the inclusion of citizens, the planning process cannot allow for the assessment of the specific social and spatial housing needs and expectations of those acquiring residential land. The nonexistence of a broad monitoring program means that a myopic planning perspective is applied for the masses, and capacity to adapt the dynamic needs of citizen is limited. **The urban planning process should adapt a participatory stance, including representation from all segments of society, paying special attention to the inclusion of marginalized groups. The provision of residential plots should be paired with surveys to understand land use from the perspective of plot owners/applicants. Specific indicators related to social, spatial and other dimension of housing provision should be developed and monitored periodically to gauge the productivity of land use and the effectiveness of land distribution and administration.**

Overall, the analysis conducted in this thesis demonstrates that Muscat presently shows signs of formal rapid development which has not comprehensively take into high consideration issues of sustainability. The key issues elicited in this study can be assuages by the recommendations for reform that have been presented based on formal standards and best practices for good governance and sustainability in land management. Generating reform in the land sectors does not come without its challenges. It requires a transitional 'milieu'

to prompt a shift in mentality and an appreciation for change. It is noted that any level of reform will call for dedicated leadership for re-establishing the rule of law, collaboration across the spectrum of stakeholders including citizens, and incentives that counter the inclination to maintain the status quo (Zimmermann, 2011).

Objectives and Expected Outcomes

The objectives set out in this research have been generally met. Reviewing the law and administrative processes related to residential land distribution was achieved, though it was limited in some ways by access to legal documents. For example, the specific Royal Decree granting tenure rights to women was referenced in several documents and within the media, but the document could not be acquired despite attempts through several different avenues. Furthermore, it is possible that some regulatory laws may have been overlooked. Since the Land Laws are access-restricted through the Ministry of Legal Affairs (MOLA), segments of the law had to be discovered individually through discussions with officials and throughout secondary document review. Overall, the list of legal documents that have been reviewed is considered to be rather comprehensive and representative of most of the legal framework related to residential land.

The task to present relevant recommendations for institutional reform was completed. The suggestions for reform do not, by any means, represent a comprehensive set (nor did they aim to be). True to the search for specific findings, the recommendations prescribed represent the analysis of theoretical discourse from established authors on the subject matter, collective feedback from officials and experts in Muscat, and the researcher's direct observations. Some social and spatial dimension for housing (e.g., health or building height preferences) did not come up in the citizen surveys and plot owner interviews. Specific studies would be needed to explore these facets. However, it can be considered an accomplishment that the recommendations herein provided present several vectors through which institutional reform toward improved land governance and sustainable land management can be approached. This accomplishment is founded on the in depth literature review that provided an array of guiding principles upon which to propose reform.

Interestingly, one particular finding stood out because it clearly challenged the researcher's main assumption. It was surprising to discover that a country with such a rapid development trajectory, adequate resources and wealth, and large-scale infrastructure and project developments in the works was not implementing its urban planning from a formulated strategic plan. Due to this fact, no national planning document was available to review directly in terms of good governance and sustainability. Hence, the investigation had to be sought out from more rudimentary bases for planning (land law and specific administrative processes).

The final main objective was met for the most part. At the onset, ambitions were high to develop a context-specific set of indicators for monitoring social and spatial dimensions of Muscat residential land use. Prudent counsel from the advisors to this thesis helped to temper this lofty goal. Instead, it was suggested to present recommendations for institutional reform that may be applied toward basic monitoring. Still, the researcher aimed to augment the delivery of recommendations with survey feedback regarding residential issues related to social and spatial factors. It was a small feat to rapidly produce and implement a small-scale pilot survey in the final two weeks of stay in Oman. The survey responses proved to be useful in the triangulation of mostly institutional-based data. It can also be conceived that the pilot survey that was developed can serve as a basis for implementing a full-scale housing study with current and forthcoming plot owners. The results of such a

survey would provide the information to establish context-relevant indicators and the impetus to establish monitoring in the field of land administration. It is the researcher's opinion that monitoring can be one of the strongest remedial efforts in land use management. Even though land governance in Oman is centralized and driven by autocratic authority, the uses of indicators and other assessment instruments provide a direct line to relevant information for decision-makers. Coupled with adapting greater participatory planning approaches, monitoring can be a robust tool to guide the planning process, and urban development altogether.

Good Governance and Sustainability in Residential Land Administration in Muscat, Oman: Toward Institutional Reform and Basic Monitoring

Revisiting the primary research focus, it can be judged that this thesis provided a strong overview of residential land administration in Muscat along the lines of good governance and sustainability. Overall the legal, administrative and performance analysis provides a legitimate basis for providing recommendations toward reform and basic monitoring.

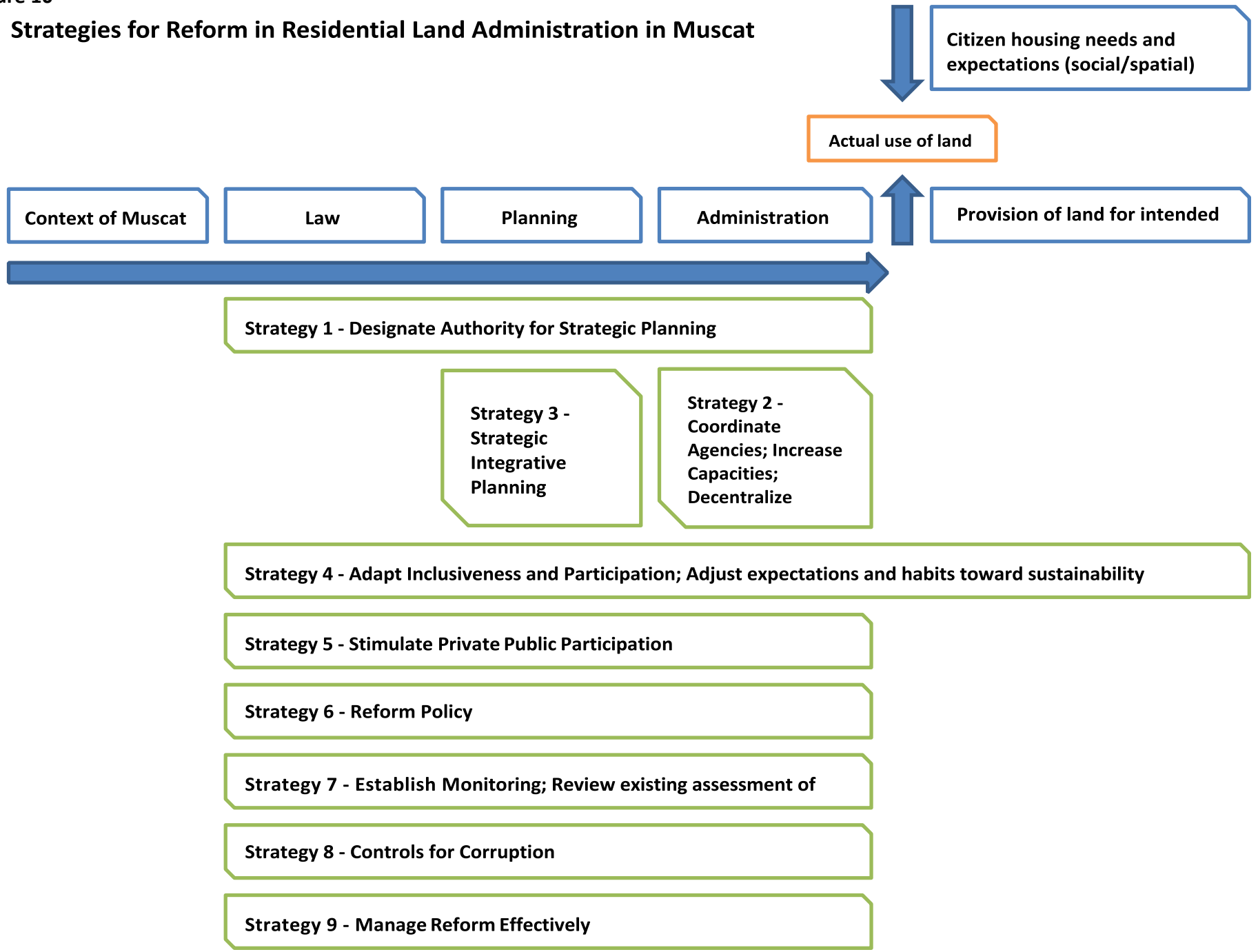
The study was weaker in determining a reliably significant set of resident social and spatial needs. Thus, answering "*how does current residential land administration sustain the expressed social and spatial needs of residents in Muscat, Oman?"* cannot be done persuasively. Disseminating the citizen survey more widely (to increase the sample number) would be necessary to ascertain the needs and expectations of plot owners more clearly to establish a stronger relationship between the intended and actual use of residential plots. An analysis of such survey responses could determine with greater accuracy (i.e., a small standard of deviation) those issues salient to social and spatial conditions of land and housing provision.

Further research

This study paves the way for several other areas of exploration that tangent or parallel the research that was conducted. Questions arose throughout the course of developing this thesis: What housing typology is best suited for Omanis' social, cultural, climatic, economic and spatial needs? What are the economic dimensions for sustainable land use in Muscat? How would participation planning work in the context of Omani society? How will housing needs and land use change due to generational shifts? How can this study be utilized in other governorates in Muscat, or in other comparable cities in the GCC? These are just a sampling of questions that suggest many areas for additional research. Two specific areas to further endeavor that tie closely to this thesis include: 1) the development of planning indicators based on relevant housing and land issues, and 2) the establishment of 'bottom-up' monitoring as a preliminary mechanism for citizen participation in the residential planning process. These research pursuits would help to provide important regulatory mechanisms to ensure that good governance and sustainable spatiality are continually implemented in the broader Omani land use sector.

Figure 10

Strategies for Reform in Residential Land Administration in Muscat



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APPENDIX

A – Methodology Outline & Steps

Outline

- Preliminary preparation
    - determine key stakeholders
    - determine key primary data sources
    - secondary data review
- Country/city profile and background information
- Literature review on land administration
- Literature review on good governance (specific to land management)
- Literature review on sustainability (specific to land management)
- Document review of Oman land administration
- Document review of Oman sustainable development efforts
    - Docs on sustainable development at The Wave, The Blue City, etc.
    - Majestic Muscat
    - Urbanoman conference website
- Document review of best practices (specific to GCC region)
- Primary data collection (collection of information through experts or representative household survey)
    - interviews with stakeholders
    - survey development
- Feedback from survey expert
- Feedback from pilot survey takers
    - Stakeholder profiling
    - Stakeholder inventory
    - Triangulation of interviews
    - Field study, observation
    - Expected outcomes
    - Develop recommendations

Step 1 - Determine general key issues of relevance

- Meetings with Dr. Nebel, Aurel, Haitham
- Presentation on current issues relevant to research project (Dr. Nebel)

Step 2 - Determine scope of research

- Limit focus of research to specific topic: land governance review of residential land sector
- Limit coverage of research geographical area: Muscat municipality
- Establish timeline for research:
    - Establish timeline for entire thesis development process
    - Duration of data collection limited to 5-6 weeks in Oman

Step 3 - Review guidelines and best practices for methodology

- Hierarch Theory (FESLM)
- Assessing SLM (FESLM)
    - 5 "pillars"

- LGAF
    - Research duration is ideally 3-5 months, unlike 2-3 weeks typical of PEFA
    - Use of "country coordinator", not expatriates
    - Dimensions grouped in set of 10 topics
    - Expert panels of stakeholders with firsthand knowledge or experience to confer
    - Participatory dimension
- Advice from Dr. Wehrmann
- List of guiding documents
- Best practices for conducting a stakeholders analysis

Step 4 - Define methodology

- preliminary preparation
    - determine key stakeholders
    - determine key primary data sources
- secondary data review
    - Country/city profile and background information
    - Literature review on land administration
    - Literature review on good governance (specific to land management)
    - Literature review on sustainability (specific to land management)
    - Document review of Oman land administration
    - Document review of Oman sustainable development efforts
- documents on sustainable development: The Wave, The Blue City, etc.
- Majestic Muscat
- Urbanoman conference website
    - Document review of best practices (specific to GCC region)
- primary data collection (collection of information through experts or representative household survey)
    - interview with stakeholders
    - survey development
- feedback from survey expert
- feedback from pilot survey takers
- stakeholder profiling
- stakeholder analysis
- triangulation of interviews
- field study, observation
- expected outcomes
- develop recommendations

Step 5 - Writing

- First draft
- Incorporate review feedback from advisors
- Second draft

Step 6 - Presenting

- TU masters defense presentation
- Oman presentation (potentially)

B – Actors in Residential Land Governance Process

Public Sector

- Sultan (autocratic royal authority)
- Supreme Council of Town Planning (disbanded)
- Supreme Council of Development for the Secretariat of Muscat (working name, newly formed)
- Department of Defense
- Ministry of Housing
- Muscat Municipality
- Ministry of Transportation

Private Sector

- Private sector for municipal services and infrastructure
- Brokers

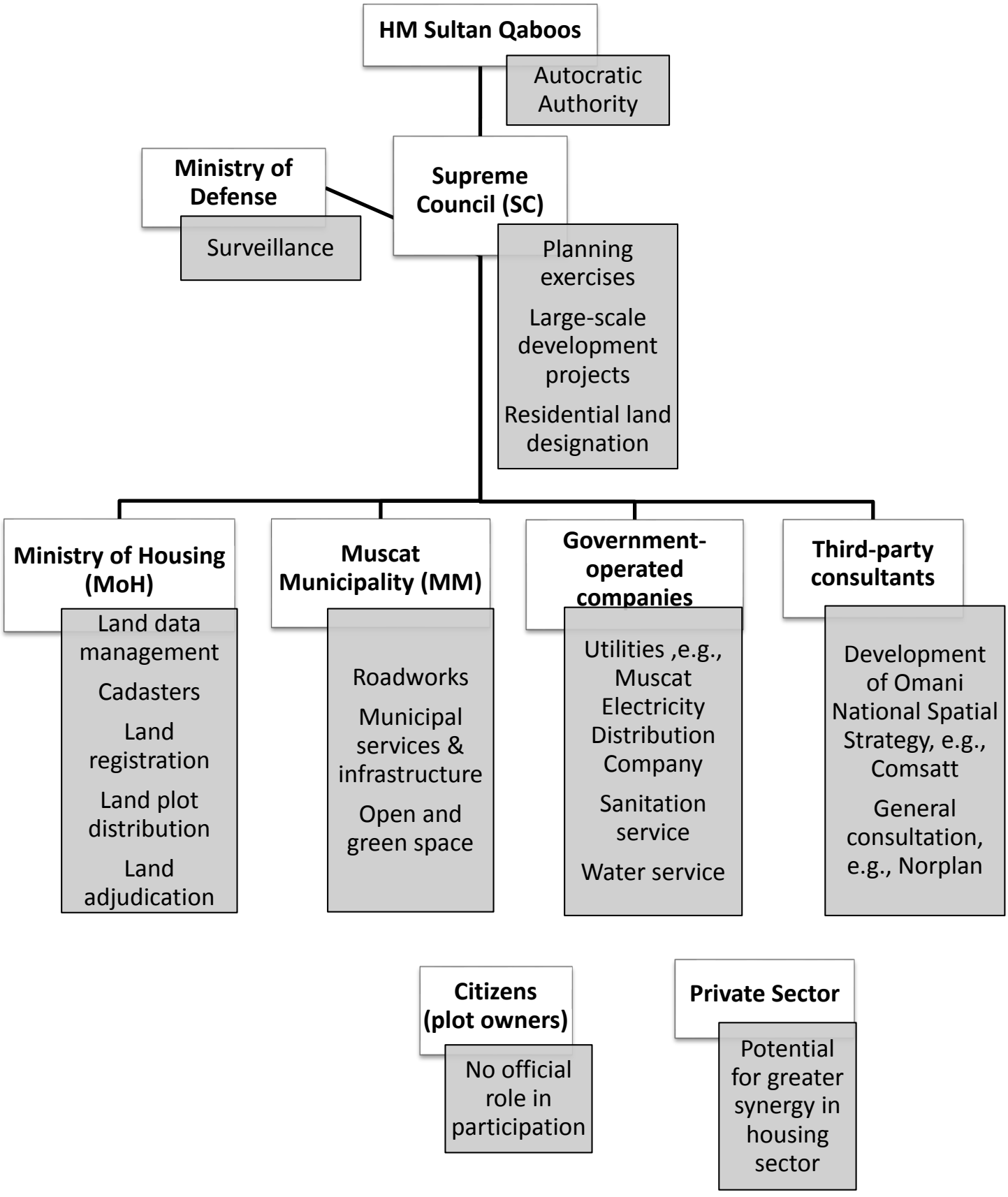
Citizens

- Citizens/inhabitants
- Residents
- Renters
- Owners
- Migrants
- “Rising” generation of eligible plot applicants

Civil sector

- Norplan (third party consultancy agency)
- Consatt (consultancy agency)
- Prisma Solutions (consultancy agency)
- 23 Degrees North (architecture firm)
- Local experts (e.g. Hamad Al Gharabi, PhD ABD)

Figure 11 – Relation of Actors in Residential Land Governance Process



C – The Basic Law of State Related to Residential Land Administration

Royal Decrees related to residential land administration

- 26/75: Regarding the Issuance of the Law Regulating the Administrative Apparatus of the State
- 5/80: Lands Law of 1980 (aka Law of Land), set of laws regarding land administration based on Royal Decrees
- 5/81: To Organize Usufruct over the Sultanate's Lands (amends 5/80)
- 56/82: Financial Law
- 88/82 To Endorse the Executive Regulation of the Law Regarding Organization of Usufruct over the Sultanate's Lands (amends 5/81)
- 81/84: Government Lands Entitlement Regulations
- 48/89: Apartments and Floors Ownership Investment Regulation
- 101/96: the Basic Law of the State
- 2/98: Issuing the Cadaster System
- 20/2000: permitted nationals of all GCC countries (natural persons) to acquire up to three residential sites in Oman, without necessarily restricting these sites to designated tourism areas. CANCELED – by 21/2004
- 21/2004: Regulating Ownership of Real Estate by GCC Citizens in the Member States
- 254/2004: opens the door to the possibility of foreign ownership of freehold property in Oman; expat rights to limited ownership
- 12/2006: Real Estate Ownership Act for the Integrated Tourism Complexes
- 63/2006: Regarding the Rules of Granting an Extension
- **Undiscovered**/2008:Women's right to ownership
    - Tie to social justice issues of gender equality
    - issue in question today; possible regression of gender equality on basis of not being able to meet demand (there are other ways to maintain gender equality and limit land provision eligibility
- 76/2010: relaxed the foreign shareholding restrictions and limitations of usage

Ministerial Decisions related to RLA

- 63/2006

D – Analysis of Law Related to Residential Land Administration

Royal Decree No. 26/75

Regarding the Issuance of the Law Regulating the Administrative Apparatus of the State

Issued on: 18 Jamada Althani 1395 AH, Corresponding to: 19 June 1975 AD

Text of Article One of Royal Decree No. 26/75 (sub-articles): Jurisdiction of the Ministry of Land Affairs	**Comparison to Primary Data Collection (Interviews with officials)**	**Correspondence to Good Government in Land Administration and Sustainable Land Management**
1 – Planning lands in all regions of the Sultanate for the purposes of housing at various levels and for the commercial and industrial purposes and dividing planned zones to a plots *[sic]* with specific area, number, reference, and grade.	PARTIAL, lands are planned for various purposes to some degree. Sohar port zone, The Wave as an integrated tourism complex (ITC), Mutrah as a heritage site and future tourism zone, Al Amrat as a forthcoming residential settlement. But, there is poor clarity about how these various planned zones are to be integrated at the Ministry and Municipality level. The narrow focus each agency places on its own directives prevents the synergetic potentials of integrated planning from arising. YES, dividing planned zones to a plot [sic] is done *(autocad example available)*	Lack of coordination between land administration agencies means that planning is uncoordinated. Consistent reporting of lack of awareness of projects between MM, MoH and other entities. Residential land is not integrated well with various other factors. Though infrastructure is adequately accessible in Muscat, there is little integration with some social, spatial, environmental and economic dimensions as reported by officials who note that they lack and guiding strategic planning documents. The failure to use basic indicators and statistics (such as census data) point to planning that is top down and potentially amiss of inhabitant needs and expectations.
2 – Preparing development maps and site maps for each planned region determining on it the location of streets and public facilities places such as markets, mosques, schools, hospitals and others.	YES, development and site maps are prepared	Technical advancements and computerization is leading to modern, systematic processes for managing cadasters and recording land titles. Minimal participation is afforded in the planning process. Though adequate public facilities are mapped out there is no way to establish if they will be utilized maximally.
3 – Coordinating planning projects with related government ministries and departments before ratification and implementation.	MAJOR NO coordination of planning projects with related RLA institutions, even after the ratification/ implementation of plans. ONLY when there is executive supervision over a certain project deemed significant (add example from MM)	Several issues of good land governance and sustainable land management arise here. The lack of institutional coordination is a consequence of having a highly centralized authority in Oman and fragmented agency accountabilities. The condition is compounded by the fact that even post ratification; there is inadequate coordination to implement development in a holistic manner. These inadequacies render the full gamut of economic, social, environmental and spatial unsustainability.
4 – Distributing lands to citizens, whether residential lands or in the industrial or commercial area in accordance with the law regulating the lands.	YES, distribution BUT NO, not within the law a. with service and infrastructure provision	Good governance calls for the enforceability of land law. The lack of capacity to consistently fulfill the requirement for comprehensive service and infrastructure provision reveals that institutional capacity is not meeting its full potential. On the issue of sustainability, providing lands to citizens that are not serviced has implications that range from poor health conditions to diminished community development.

Text of Article One of Royal Decree No. 26/75 (sub-articles) (continued) - Jurisdiction of the Ministry of Land Affairs	Comparison to Primary Data Collection (Interviews with officials)	Correspondence to Good Government in Land Administration and Sustainable Land Management
5 – Working on the distribution of lands to citizens as quickly as required and in a way that achieve justice for all.	NO, distribution has slowed to 5 years (Haitham's case) NOT SURE of justice focus	The letter of the law embodies the spirit of social justice that is a founding value of good governance. The prescription for quick distribution, however, has been met with challenges that have stalled land distributions. Reports from interviewees have revealed that the process, which previously took about six months, now takes from 3-5 years. This significant slowdown can be attributed to issues beyond the governing controls (i.e. topological and space deficiencies in Muscat). At the same time, land management processes have stalled under the increased in individual, corrective planning cases tat have become prevalent due to the lack of previous strategic foresight and the need for re-planning.
6 – Determining and measuring lands after making sure that the planned lands are not owned by the government, or AWaqaf (endowment), after surveying the land on nature and at the presence of the concerned citizens and then submitting the final maps to citizens to complete the proceedings.	REQUIRES FURTHER DISCOVERY	N/A
7 – Defining lands approved to be awarded to citizens in different Wilayat so they can construct buildings pursuant to the certified borders on maps.	REQUIRES FURTHER DISCOVERY Interviews with officials provided the impression that all distributed lands have been granted in clearly defined areas with certified borders.	The process for defining and distributing land is formal in Muscat. One of the major issues to note regarding this sub article is that its intended outcome is not readily achieved. Observation on part of the researcher and data collected from all interviews provide a clear picture that Wilayats are undergoing inconsistent and erratic development. Instead of plots being developed and occupied defined areas have only a few built plots. In Al Amrat, for example, plot owners have limited information about when basic services will be provided, what value their land will appreciate to, and what development will take place within proximity of their plots. This leads to diverging opinions and uncertainties about how to utilize land allocations. The development that is taking place in such areas of Muscat fails to live up to the government's intended land use and has a secondary consequence of stalling further development. Instead of progress a waiting game in the land sector has emerged as plot owners hold on to unused land for values to appreciate and land administration agencies go further into the periphery to make land provisions required by Royal Decree and stretch budgetary resources to try to deliver services and adequate infrastructure.
8 – Defining Agricultural lands in different Wilayats.	N/A	N/A

Text of Article One of Royal Decree No. 26/75 (sub-articles) (continued) Jurisdiction of the Ministry of Land Affairs	**Comparison to Primary Data Collection (expert interviews)**	**Correspondence to Good Government in Land Administration and Sustainable Land Management**
9 – Keeping a record for registering title deeds for all types of lands granted to citizens with the opening of a special file for each allocated plot showing all types of disposition such as sale or mortgage or otherwise, to ensure the conservation of the citizen property rights.	YES, land registry accurately maintained	Formal procedures are documented and administered to register 'mulk' (title in Arabic). The establishment and enforcement of an efficient registration process is a major contributing factor to sustain land tenure security in Oman. One standard of good governance that is not met, however, is the public transparency of those records. Title deeds are not considered public record and the limited access to such information creates potential for information misuse and advantage for some members of society, especially those in positions of public service.
10 – Considering the Lands conflicts between people and render a judgment after hearing testimony of the concerned parties and after examining the documents and its application on nature to make sure that the instrument provided is applicable to nature.	REQUIRES FURTHER DISCOVERY (officials and plot owners)	As established by the World Bank and other development agencies, it is essential to have rule of law that is enforced and protects the right to mediation and equitable due process in land adjudication.
11 – Considering technical complaints related to planning, as well as buildings that affect the neighbor.	YES, officials (Rashed) reported managing issues of neighboring properties	The matter of good governance is again upheld by providing mechanism to address land owner complaints. The reported rise in individual complaints causes redundant planning efforts, though, decreasing institutional efficiency and sustainability by increasing expenses, labor, material resources and various social and environmental costs.
12 – Making decision in all rent cases related to increasing rents or requests for evacuation.	N/A	N/A
14 – The Ministry shall perform its mandates through its various organs, according to the organizational structure described in the Appendix (b) of this Law.	SUBJECTIVE, there is assessment BUT, assessment does not carry down to department personnel training	The mandate for institutional monitoring is set forth in this sub article. Based on interview commentary, two main issues arise related to the monitoring process. Firstly, the assessment is not tied to a national set of planning visions or strategies and hence cannot be outcome oriented. Secondly, upper tier institutional evaluation does not travel down the administrative hierarchy. Officials and administrators alike, at both the Muscat Municipality and the Ministry of Housing, did not contribute to any performance assessment determining efforts and were not aware of any performance improvement measures passed top down.
13 – Rehabilitating and training Omani employees working in the ministry.	NOT SURE, ASK SOMEONE (officials)	This sub article meets the provision for human capacity development in good governance literature. The additional aim of Omanization, to increase national citizen roles in the public sector is admirable, though it poses some interim challenges as technical and administrative capacities are improved.

Royal Decree No. 5/80 (amended by RD 5/81); Lands Law of 1980 (also known as Law of Land)
Set of laws regarding land administration based on Royal Decrees

Royal Decree No. 5/81
To Organize Usufruct over the Sultanate's Lands
Issued on: 6 Rabi Al Awwal 1401 AH, Corresponding to: 13 January 1981 AD

Articles of Royal Decree No. 5/81	Correspondence to Good Government in Land Administration and Sustainable Land Management	Indicators
Article (1): The Minister of Housing shall grant Omani and non-Omani natural and juristic perons usufruct over part of the state-owned lands for the purpose of setting up projects, which serve the development process in the Sultanate for a determined period. A decision relating to such usufruct shall be issued by the said Minister. In all circumstances the decision to grant usufruct over lands to non-Omanis, non-GCC citizens and companies where the shareholding percentage of the Omanis or GCC citizens is less than (30%) shall not be deemed final without obtaining the approval of the Council of Ministers. 1 Amendments contained in Royal Decree No. (76/2010) were incorporated into the Decree. 2 This Article was amended by Royal Decree No. (76/2010).	The article expands the tenure rights of citizens (and non-citizens) set forth in RD 26/75. It is a demonstration of the Sultan's concept for catalyzing further development through empowering and enabling citizen initiative, which reflects core principles of good governance. This 'decentralization' of land also leans land use toward greater potential for improved sustainability. Exploring the access of land for constituents across the spectrum of socio economic class may help to elucidate the degree of social equality and help examine general social sustainability in Oman.	• Proportion of land owners by gender • Proportion of land built by gender • Land owners by income (or other gauge of socio economic status)
Article (2): In the implementation of this Decree, usufruct shall entitle the Usufructuary to use and exploit the land subject to usufruct and shall authorize the Usufructuary to dispose of his/her/their right by way of assigning to third parties or mortgaging the same and all other such acts that are consistent with the nature of the usufruct and without prejudice to the ownership of the land itself. Such is deemed a temporary real right that shall inevitably cease upon expiration of the prescribed period or upon the death of the Usufructuary, whichever is nearer.	Article (2) decrees usufruct and transfer rights providing clarity and protection over the process by which lands are owned and reassigned. It also specifically prescribes non-prejudice thus establishing greater social equality and reflecting the values of good governance.	• Complaints filed regarding prejudice in land ownership and usufruct rights
Article (3): Usufruct includes the land, the buildings and crops grown. The Usufructuary must preserve, maintain and enjoy the land and its dependencies in accordance with its designated purpose. Upon expiration of the usufruct due to any reasons, the Usufructuary shall return the land in the same condition as it was upon the commencement of the usufruct unless otherwise agreed, and subject to the provision of Article (7) hereof.	The maintenance of land and use for designated purpose promotes sustainability if those purposes have been considered for their various impacts. This article should be extended to call for strategic planning that adapts an integrated approach to land use that accounts for economic, social and environmental factors.	

Articles of Royal Decree No. 5/81 (continued)	Correspondence to Good Government in Land Administration and Sustainable Land Management	Indicators
Article (4): Usufruct may not be acquired unless registered with the Ministry of Land Affairs and Municipalities pursuant to the provisions of the aforesaid Lands Law of 1980. Any disposal of such right by the Usufructuary shall not be taken into consideration unless registered in the manner mentioned above with one copy of the contract to be registered deposited with to *[sic]* the said Ministry. The Ministry may refuse to register such disposal in case it is issued in a manner that violates any of the provisions of this Decree, its Executive Regulations or any other enforceable legislation in the Sultanate.	Ensuring a formal process for land registry heeds good governance practices that help prevent unfair land transactions. Proclaiming the specific responsibility of a land administration agency establishes authority and accountability on part of the Ministry of Housing and further supports good governance at an institutional level.	
Article (5): The Minister of Land Affairs and Municipalities shall prepare an Executive Regulation for this Decree to be issued under a Royal Decree. The said Regulation shall set out the conditions and rules governing usufruct as well as the procedures of filing applications for acquiring such right and deciding thereon, whether in respect of lands owned by the state or citizens; and shall determine the rights and obligations of both the Usufructuary and the Owner. The Minister may prepare a model contract with the conditions and rules of exercising the usufruct in accordance with the provisions of this Decree and its Executive Regulation.	These conditions and rules governing usufruct were set out by Royal Decree No. 88/82 To Endorse the Executive Regulation of the Law Regarding Organization of Usufruct over the Sultanate's Lands, and subsequently by Executive Regulations (the related Ministerial Decree could not be accessed). Similar to the analysis provided for Article (4), having legislation such as this in place ensures clear administrative processes and criteria for consistent action. The provision makes a further suggestion for the Ministry to develop a 'model contract', which inspires systemization and facilitates the process for citizens and agencies alike. This is a clear reflection of efficiency prescribed within the principles of good land governance.	
Article (6): Should the Usufructuary violate all or part of the conditions of the usufruct as per the provisions of this Decree or its Executive Regulations, whether in relation to the lands owned by the government or citizens, the Minister of Land Affairs and Municipalities may issue a reasoned decision to terminate the usufruct and compel the Usufructuary to return the land to its Owner without compensation and without any prejudice to the Owner's right to compel the Usufructuary to remove the agricultural products or the buildings erected on the land. The termination of the usufruct in the manner mentioned above shall not constitute prejudice to the rights of the third parties registered on the usufruct like mortgage and the like.	Setting grounds for legal rights to monitor the adherence to conditions of usufruct lends to mutual accountability of the institute and land owners. The details of this Ministerial process, as well as case outcomes, should be reviewed to ensure appropriate rule of law. It would be interesting to establish an indicator to monitor violation cases to assess the fairness of the overall process and its outcomes.	• Number of violation cases • Survey of efficiency of process • Audit (third party) of Ministerial decisions and final outcomes regarding termination of usufruct. • Assessment of appeal process

Articles of Royal Decree No. 5/81 (continued)	Correspondence to Good Government in Land Administration and Sustainable Land Management	Indicators
Article (7): If the land subject to usufruct happens to be occupied by buildings or cultivated upon the expiration of the usufruct period or upon the death of the Usufructuary, or if the Usufructuary had incurred exorbitant amounts for the sake of preparing the land for use, the Owner shall have the choice either to restore the land along with the crops or the buildings erected thereon provided that he/she shall compensate the Usufructuary or his/her heirs for the increase in the land value caused by such works, at the discretion of the committees concerned with the aforesaid Lands Law No. 5/80 or to leave the land to the Usufructuary or his/ her heirs to benefit therefrom for a new period as estimated by the said committees, without prejudice to any special agreement made between the Owner and the Usufructuary.	Article (7) offers a fair provision to protect the Usufructuary regarding the compensation for exorbitant amounts incurred for preparing the land for use. The article contributes to security to all parties involved. Attention is placed on non-discriminatory practices that uphold social equality.	
Article (8): The Government may at all rates terminate the usufruct and restore the land subject to usufruct along with the crops and buildings erected thereon or to seize the same from the citizens for the purposes of public interest pursuant to the Expropriation Law and in return for a fair compensation to be distributed to the Usufructuary and the Owner. The Usufructuary's share shall be reduced in proportion to the amount of time which has lapsed from the usufruct period until date of seizing the land.	A fair provision to protect the option of expropriation for public interest and fair compensation for Usufructuary is herein provided. The maintenance or restoration of land to its original state correlates to land preservation efforts that exemplify spatial sustainability.	
Article (9): An appeal may be filed against the decisions issued in the circumstances provided for in Articles 4, 5, and 6 within one month from notifying the Usufructuary thereof. The appeal shall be lodged with the Council of Ministers' Committee which is formed under the chairmanship of the Minister of Diwan of Royal Court Affairs and membership of the Minster of Land Affairs and Municipalities, the Minister Commerce and Industry and the Minister of Justice. The Committee shall issue its decision within no later than two months from the date of appeal.	An essential characteristic of good governance is fair adjudication to encourage effective rule of law. Similar to the case of Article (6), monitoring the appeal process can help to curb any potentials for the abuse of authority, discrimination, corruption and inequality.	
Article (10): All competent authorities shall implement this Decree, each within its scope of competence.	The call for competence fulfills many measures of good governance, including accountability, transparency, effectiveness and subsidiarity. The requirement for authority competence entails continual monitoring. It necessitates individual performance evaluation as well as overall institutional capacity review. Article (10) demonstrates that policy is in place, but interview data reveals that it is not being implemented, at least not ubiquitously.	• Existence of criteria for assessing competence • Outline of periodic, comprehensive monitoring process
Article (11): This Decree shall be published in the official gazette and shall come into force three months after the date of its publication.	The publication of this decree provides the most basic provision of civic engagement. An informational level of participation, as developed by Arnstein (1969), is minimalistic and does not adequately suffice standards for good governance.	

Royal Decree No. 88/82

To Endorse the Executive Regulation of the Law Regarding Organization of Usufruct over the Sultanate's Lands (amends 5/81)

Issued on: 21 Muharram 1403 AH, Corresponding to: 8 November 1982 AD

Text of Royal Decree No. 88/82	**Correspondence to Good Government in Land Administration and Sustainable Land Management**
Section One: On Usufruct Conditions Purpose of social or economic development; no change of use, no partitioning, proportionate with needs of project, period of usufruct limited to 50 years of project but may be renewed.	The basis is purpose driven sustainable development is herein written. The recognition of social and economic development in an intertwined process imparts sustainability with in good governance.
Section Two: On Procedures of Filing Applications and Determination thereof Basis for criteria posted on MoH land application website	Effectiveness is promoted throughout the land application process. Review of the criteria and application show it to be a simple process, easily accessible (online as well as post office) and well organized. The issue of application time has risen as the lag time between application and allocation has increased significantly in recent years. This serves as flag for reviewing the distribution process to determine the underlying issues and manners for improving its effectiveness.
Section Three Chapter One: Owner's Rights Chapter Two: Owner's Obligation Chapter Three: Usufructuary's Rights	Section Three and Four detail the expectations for owners/usufructuaries. The best practice for clarifying responsibilities sets a foundation for accountability for all parties. Citizens, agencies and members of other sectors must be well informed of their obligations, rights and provisions under the law to be able to held accountable for their actions. Accountability further helps to direct the actions of multi stakeholders in a coordinated way that helps to uphold fairness, efficiency and development that promotes the common good of society.
Section Four: Usufructuary's Obligations Articles 33: appeal process	See above
Section Five: Appeal against Decisions	Articulating the provision of an effective appeal process demonstrates the value for rule of law and the protection of lesser influential members of society. Good governance is upheld through such legal security measures.

Royal Decree No. 2/98

To Promulgate the Property Registry Act

Issued on: 25 Shawwal 1418 A.H, Corresponding to: 22 February 1999 AD

Summary of Decree To Promulgate the Property Registry Act	**Correspondence to Good Government in Land Administration and Sustainable Land Management**
Part I – General Provisions for Registration Protection of property ownership and stable real estate transaction; Criteria for cadasters (*krookies*) that define unique property units; Provision of effective property registry and Land Registry Office; Publicity of real property; Establishment of original and ancillary real rights;	RD No. 2/98 further articulates the informational management of land. Specific policy regarding cadasters, registration criteria, roles and responsibilities of the Land Registry Office and rights related to land are detailed. The articles within the decree set out to protect ownership of lands and establish stable administrative processes to facilitate land transactions. This policy conveys accountability, transparency and effectiveness which contribute to equity and greater sustainability of land use. Subsidiarity is not herein mentioned, and this legislative piece does not entertain the minimization of transactional parties. Evaluation of the overall effectiveness of the land registration process may provide clues for means to streamline the process to yield greater efficiency.
Part II – Establishment of Rights	Parts II and III contribute to accountability.
Part III – Acts and Rights to be Registered	See above
Part IV – Notarization	Notarization lends to official recording and identification for ownership. This ensures security for land and contributes to transparency, effectiveness and rule of law.
Part V – Registration and Change Procedures	Effectiveness is important in all aspects of land registration. Careful oversight must be made over change procedures to guarantee security of land.
Part VI – Fees	Reasonable fees that are assessed consistently can contribute to process effectiveness and contribute to accountability. The amount of fees must be reasonable across various income levels as this can impact issues of equity, especially for those that may not be able to afford transaction fees that are set too high. The evaluation of fee structures should be made regarding affordability.
Part VII – Penalties	Penalties are posed as a preventative means to uphold accountability on part of owners. They are applied as a means of maintain equity and enforce policy infraction.

Royal Decree No. 76/2010

Amendments to Lands Laws of Oman

Summary of Decree from Development in 2010, Sultanate of Oman	**Correspondence to Good Government in Land Administration and Sustainable Land Management**
Royal Decree 76/2010 carried out certain amendments to the Land Laws of Oman which became effective from 16 June 2010. The amendment has now relaxed the foreign shareholding restrictions as well as the limitations on the usage of land. The amendments enable public and closed joint stock companies with a minimum of 30% Omani shareholding to own land in the Sultanate. More significantly, the amendments allow these companies to engage in real estate development as a business object. *(Development in 2010, Sultanate of Oman; Ernest and Young, http://vae.ahk.de/fileadmin/ahk_vae/Startseite_Oman/Developments_in_2010_v8_Final_.pdf)*	Amending the Land Law to increase foreign land shareholding can contribute to greater development that reflects more accurately the present day social landscape, which includes an expat population that is over 45% the Muscat Governorate (Census 2010).

Ministerial Decision No (63/2006)

Regarding the Rules of Granting an Extension According to Royal Decree No. 5/80 to issue Lands Law and its Executive Regulation *(related to apartment complexes)*;
And to the Ministerial Resolution No. 163/88 on the division of lands prepared for construction;
And to the Ministerial Decree No. 154/93 regarding the change of agricultural lands in the region of Renaissance Tower to Naseem Public Park;
And to the decision of the Supreme Committee for Town Planning No. 6/94 on the division of lands;
And in pursuance of the Public Interest.
Issued on: 1 Safar 1415 AH, Corresponding to: 10 July 1994 AD
Issued by: Malik bin Suleiman Al Ma'mari, Minister of Housing
Have decided as follows:

Articles of Ministerial Decision No. 63/2006	**Policies that are not applied to the residential plot distribution process**	**Recommendations**
Article (1): The lands which have an area of more than ten thousand square meters or its plots are more than twenty-five plots (without the change of use) shall be divided in accordance with the following basis:		
(A) The applicant for partition should provide a basic services *[sic]* and the Ministry will determine the level of those services in coordination with the ministries concerned in proportion to the level of existing services in each region separately.	Interview data collected from housing officials and plot owners demonstrates that the provision of basic services has been inconsistent in Muscat. Lack of services in Al Amrat, for example, serves as a prevailing reason for plot owners to hold off on construction. This hinders community development, social progress and diminishes economic opportunities.	
(B) The basic services shall include establishment of an electricity grid to link the divided lands with public network and drinking water network and telephone network in case of existence of several public networks for the two services in the region.	As mention above, basic services for energy, water and communication are not coordinated and land is distributed before those provisions can be accessed. Also, the policy does not articulate the necessary basic service for sewage/sanitation.	
(C) The applicant for partition should link the division project with an internal road network in line with the local road network in the region (surface treatment) and in accordance with the hierarchy of roads approved by the standards of urban planning.	This sub article endorses residential development that is coordinated with transportation infrastructure. It reflects integrated planning for habitation and mobility, which impacts a wide breadth of the myriad dimensions of urban development, and thus adapts the sustainability concept.	

Articles of Ministerial Decision No. 63/2006 (continued)	**Articles of Ministerial Decision No. 63/2006**	**Articles of Ministerial Decision No. 63/2006**
(D) The concerned authorities shall ensure that necessary lands within the project division are allocated for public facilities such as:		
1 - Electricity transmissions and extensions to the sites in order to facilitate connection to houses.	Provision for basic service.	
2 - Lands necessary for the construction of mosques or schools if necessary.	Provision for social facilities that contribute to social identity and community development.	
3 - Lands necessary for the establishment of parks and children playgrounds.	Provision for open space for recreation which promote well-being and community 'livability'.	
(E) The approval shall not be awarded except after having a *[sic]* consent from the concerned entities of relevant services to the scheme according to the principles described above.	Sub articles (E) and (F) are not effectively enforced. The aim to ensure that lands are adequately serviced prior to the awarding of titles is discrepant with real infrastructure provision. This is an important issue required further investigation and monitoring.	• Number of plot titles award without adequate service/ infrastructure provision • Proportion of distributed lands with services vs. inadequate services • Data regarding the types of service provided by area • Statistics measuring amount of time needed to provide each service and overall infrastructure • Proportion of lands unused (unconstructed) in serviced vs. non serviced lands
(F) Title deeds shall not be issued except after the applicant for partition obtained a proof for executing such services.	See above	See above
Article (2): The competent authorities shall implement this resolution, and shall take effect from the date of its issuance.	Authority competence is a requisite expectation for good governance.	

E – Interview Schedule

	Institute	Name	Title	Interview date	Interview Location	Notes
1	Ministry of Housing	Mohamed Al Shidhani	Head of Studies and Planning Foundations	10/13/2012	MoH	semi-structured interview
2	Ministry of Housing	Mohammed Al Adasi	Director of Studies & Physical Planning	10/13/2012	MoH	semi-structured interview
3	Ministry of Housing	name not provided	Department of Statistics	10/13/2012	MoH	semi-structured interview
4	Ministry of Housing	Sultan Al Wahaibi	GIS Analyst	10/13/2012	Park Inn Hotel	semi-structured interview
5	Community citizen	Ahmed (last name not provided)	Forthcoming plot applicant	10/14/2012	Chado	ethnographic interview
6	Ministry of Housing	Ahmed Al Jahwari	Director of Muscat Planning	10/16/2012	MoH	semi-structured interview
7	Ministry of Housing	Mana Rashed	Draftsman	10/16/2012	MoH	semi-structured interview
8	Ministry of Housing, Bourami	Hamad Al Gharibi	Director of Planning	10/16/2012	Gutech	semi-structured interview
9	Real estate sector	Salim Salam Al-Busaidi	Broker	10/22/2012	Personal office	semi-structured interview
10	Sultan Qaboos University	Anwi Shaab	Professor	10/22/2012	SQU	semi-structured interview
11	Muscat Municipality	Ali Al Ajmi	Project planner	10/24/2012	Muncipality	semi-structured interview
12	23 Degrees North	Nadia Maqbool	Architecture, firm owner	11/3/2012	23 Degree office	semi-structured interview
13	Supreme Committee for Town Planning (former)	Mubarak Aziz Al Amri	Da'irat al Masahaat	11/7/2012	MoH	semi-structured interview
14	Community citizen	Amur Salim Amur Al Amri	Plot owner	11/19/2012	Plot owner's home	semi-structured interview
15	Norplan (third party planning consultancy)	Olav Hauger	Consultant	11/20/2012	Norplan office	semi-structured interview
16	Community citizen	Mudhir Maiysa	Plot owner	11/20/2012	Starbucks (Shatti)	semi-structured interview
17	Urbanoman Sustainability Conference	Sherwin Servillena	Conference Coordinator	11/26/2012		unavailable; questionnaire by email
18	Local councils	no contact discovered				insufficient time to contact
19	Ministries of Regional Municipalities and Water Resources	no contact discovered				insufficient time to contact
20	Ministry of Housing	Salim Al Afani	GIS			not able to reach
21	Ministry of Housing	Tahir Al Salami	Director of GIS			unavailable (on leave)
22	Ministry of Transport and Communication	no contact discovered				insufficient time to contact
23	Omani Wastewater Services Company (Haya)	no contact discovered				insufficient time to contact
24	Unknown	Mubarak Al Amali	Director of Survey Department			not able to reach

F – Interview Questions for Land Administrators and Experts

Questions to Supreme Committee

TRC research: "Towards Sustainable Urbanisation Patterns in Oman"
Principal Investigator: Prof. Dr. Sonja Nebel, GUtech
Researcher: Samuel Soloman, Masters in Urban Management, TU Berlin

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Supreme Committee for Town Planning
"The Supreme Committee for Town planning was originally established in 1985 and restructured under Royal Decree No.31/2005, issued on 21st March 2005. It is responsible for drawing up general town planning policies within the context of development plans. It also keeps a close eye on the implementation and development of the approved planning programmes and sets out principles for valuing land expropriated by the government for the construction of public utilities. The committee works to overcome any practical or financial obstacles to implementation of the approved plans and is chaired by the Minister of National Economy. Royal Decree No.24/2006, issued on 28th March 2006, established a secretarial-general of the Supreme Committee and appointed a secretary-general"

"The Supreme Committee for Town Planning is the government agency responsible for the implementation of the economic and social development plans in the Sultanate with respect to metropolitan and spatial fields, through the preparation of detailed plans at the regional and urban areas".

Objectives:

- Defining the general strategies of urban planning at all levels taking into account economic, social, and environment considerations.
- Preparing an urban development strategy so as to achieve sustainable comprehensive development objectives at all governorates and regions in Oman
- Approving allocating plots for different purposes
- Setting up and recommending rules and legislations for regulating steering the urban planning activities
- Establishing an integrated system of geographical information that include databases and maps for all governorates and regions in Oman.
- Producing the key maps in coordination with the concerned agencies so as t meet the requirements of planning and development works.
- Setting up the bases of evaluating the expropriated real estate under the law of expropriation of ownerships for the public utilizations

1. Could you please briefly describe your tasks and responsibilities within the SCTP and tell us:
    a. Since when are you working with the Ministry?
    b. What is your educational background?
    c. Where have you been trained?
    d. Have you been working always in the same field?
2. Could you please briefly describe the current town planning policies in Oman /Muscat
3. How to you monitor implementation and development of approved planning programmes?
4. Which rules and legislations are currently guiding and controlling urban development and building activities in the housing sector?
5. How are decisions made about the location of new residential schemes?
6. What is fixed in Detailed Plans? (What kind of guidelines do they give?)
7. How far do you coordinate with other institutions concerned? With whom? When? How?
8. What do you consider as the major challenges for future urban development in Muscat?

Questions for Muscat Municipality

TRC research: “Towards Sustainable Urbanisation Patterns in Oman”
Principal Investigator: Prof. Dr. Sonja Nebel, GUtech
Researcher: Samuel Soloman, Masters in Urban Management, TU Berlin
Questions to Muscat Municipality

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1. Under the Muscat Municipality responsibility, how many construction projects are currently underway for:
    a. Roads?
    b. Streets?
    c. Parks?
    d. Can you provide a map/overview of these projects?
2. Please describe the procedure of construction of roads, streets within new residential areas under construction such as in Mabaila, Al Khoud or Mawale.
    a. When does MM starts with constructing roads/streets in new/growing areas?
3. Please describe the procedure of construction of parks and public squares in new/growing residential areas? *(related to 11)*
    a. Driving through new areas, there are hardly any parks, public greens or public squares. How come?
4. Who is planning for landscaping in public areas? What are the guidelines for landscaping? *(related to 19)*
5. People in the new Phase 6 of Al Khoud told us that they feel uncomfortable in the nights because of missing street lights. When do you decide to put street lights into a new residential area? *(related to 12)*
6. Is MM also responsible for the provision of social facilities? Who cares for:
    a. Schools?
    b. Kinder garden?
    c. Health facilities?
    d. Mosques
    e. Other community facilities
7. What is the process for determining and prioritizing projects?
8. What strategies are used in planning?
9. How is sustainability adapted into planning?

Questions to Ministry of Housing

TRC research: "Towards Sustainable Urbanisation Patterns in Oman"
Principal Investigator: Prof. Dr. Sonja Nebel, GUtech
Researcher: Samuel Soloman, Masters in Urban Management, TU Berlin

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Ministry of Housing
"The Ministry of Housing demarcates and distributes land for different uses under a series of regulations, laws and conditions and applies standard planning specifications with the aim of ensuring speed and flexibility in the housing sector Town planning strategies are designed to promote balanced development in the country's governorates and regions, enabling people to live and work in the areas where they grew up. Detailed plans are produced designating the different uses of the land in all towns and villages". (*http://www.omanet.om/english/oman2010-2011/sec11_b.pdf*)

1. Could you please briefly describe your (interview partner's) tasks and responsibilities within the Ministry?
    a. And tell us since when are you working with the Ministry what is your educational background:
    b. Where have you been trained?
    c. Have you been working always in the same field?
2. How many areas are currently (end of 2011) underway to be built up as new residential areas within Greater Muscat? (all wilayats)
    a. Over the past 10 years, how many plots have been allocated? Where?
    b. Is there a map or an overview on localisation and number of plots allocated? (Please try to attach a copy of the map)
    c. Who decides on where to develop and when to develop new residential areas?
3. How many applications for plots (according to land distribution law) do you receive per month (on an average) in 2010?
    a. Within the governorate of Muscat?
    b. Within the different wilayas (e.g. Seeb, Bousher, other governorates)?
4. What kinds of town planning strategies are followed today? (If possible, attach copies of written papers, strategies, etc.)
    a. Are there any new strategies that have been developed and adopted recently? (After 2005?)
    b. Please describe briefly the key elements of the strategy.
    c. Is the Ministry planning to develop new strategies? If yes, what are the main aims and contents of such kind of strategies?
    d. Will this be done by the Ministry's in-house staff?
5. How are detailed plans developed? (describe the whole process up to implementation)
6. Your personal opinion about town planning and urbanisation in Oman/Muscat: strengths / weaknesses
    a. Is the planning law appropriate?
    b. Do you feel the need for modification/amendments? If yes, what kind of modifications?
    c. Are building regulations fine?
    d. Do you feel the need for modification/amendments? If yes, what kind of modifications?
    e. Are responsibilities distributed in the best way? If not, what should be changed?
    f. Is the application process for building permission well organized? If not, what should be changed?
7. What process is taken to monitor town planning in Oman/Muscat?
    a. How often is the process undertaken?
    b. What indicators are used to assess town planning in Oman/Muscat?
    c. How do the results of the monitoring process used to improve town planning?
8. Could you please briefly describe your (interview partner's) tasks and responsibilities within the Ministry?
    a. And tell us since when are you working with the Ministry what is your educational background:
    b. Where have you been trained?
    c. Have you been working always in the same field?
9. How many areas are currently (end of 2011) underway to be built up as new residential areas within Greater Muscat? (all wilayats)
    a. Over the past 10 years, how many plots have been allocated? Where?
    b. Is there a map / an overview on localisation and number of plots allocated? (Please try to attach a copy of the map)
    c. Who decides on where to develop and when to develop new residential areas?
10. How many applications for plots (according to land distribution law) do you receive per month (on an average) in 2010?
    a. Within the governorate of Muscat?
    b. Within the different wilayas (e.g. Seeb, Bousher, other governorates)?

Questions for Ministry of Housing (continued)

1. What kinds of town planning strategies are followed today? (If possible, attach copies of written papers, strategies, etc.)
    a. Are there any new strategies that have been developed and adopted recently? (After 2005?)
    b. Please describe briefly the key elements of the strategy.
    c. Is the Ministry planning to develop new strategies? If yes, what are the main aims and contents of such kind of strategies?
    d. Will this be done by the Ministry's in-house staff?
2. How are detailed plans developed? (describe the whole process up to implementation)
3. Your personal opinion about town planning and urbanisation in Oman/Muscat: strengths / weaknesses
    a. Is the planning law appropriate?
    b. Do you feel the need for modification/amendments? If yes, what kind of modifications?
    c. Are building regulations fine?
    d. Do you feel the need for modification/amendments? If yes, what kind of modifications?
    e. Are responsibilities distributed in the best way? If not, what should be changed?
    f. Is the application process for building permission well organized? If not, what should be changed?
4. What process is taken to monitor town planning in Oman/Muscat?
    a. How often is the process undertaken?
    b. What indicators are used to assess town planning in Oman/Muscat?
    c. How do the results of the monitoring process used to improve town planning?

Questions to a broker/real estate expert

TRC research: "Towards Sustainable Urbanisation Patterns in Oman"
Principal Investigator: Prof. Dr. Sonja Nebel, GUtech
Researcher: Samuel Soloman, Masters in Urban Management, TU Berlin

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1. What are the land prices in 2010/11 in Al Khoud Phase 6?
   - RO/m^2 for a 600 m^2plot:
   - RO/ $m^2$for a 1000 m^2 plot:
   - RO/ m^2 for a commercial plot:
   - RO/ m^2 for a residential plot:
2. How many requests do you get for a plot to by in Al Khoud phase 6 (average per month)?
3. How many requests do you get for a house to by in Al Khoud phase 6 (average per month)?
4. Where do people come from when looking for a plot in Al Khoud?
   - From other parts of Muscat?
   - From the inner provinces?
   - From Batinah?
   - Other
1. What are average land prices in 2010/11 in other areas of Muscat?
   - Mawale?
   - Ghubra?
   - Al Seeb?
   - Qurum?
   - Ruwi?
   - Wadi Al Kabir?
   - Other
6. In general, is land value increasing in 2012? (If yes, what % of increase during the past five years)
   - Al Khoud?
   - Mawale?
   - Ghubra?
   - Al Seeb?
   - Qurum?
   - Ruwi?
   - Wadi Al Kabir?
   - Other? (please specify)
7. Where in Muscat are the most favorite areas to live?
   Where do people look for a plot to buy? (Name the three most often stated areas)
8. How many transactions do you deal with during one month (average)?
   - no of plots
   - no. of houses
   - no. of apartments
9. Are people prefer a plot or a house to buy?
10. When a plot/house is sold, are there taxes to be paid? If yes, how much?
11. When a plot/house is sold, are there fees for registration to be paid? If yes, how much?
12. Does the property owner receive a paper justifying him as the new owner?

G – Review of qualitative data collected from 16 expert interviews and secondary data

Based on: (Purposes of) Good Governance in Land Administration Toward Good Land Governance, Reality, Theory and Policy (Wehrmann 2012)

Table 1: Fighting corruption

What it means	How it demonstrates GLG	Areas of improvement toward GLG	Recommendations
Administrative corruption (petty corruption)	Strict adherence to formal policy (i.e. Registry, Notarization)	- Lack of safeguards of corruption at administrative level - Supreme Committee of Town Planning changed some areas from residential to commercial use to appease a few individuals with influence; changing development plans based on influence and based singular need means that everything around it has to adjust. (Al Ajmi) - Lack of plan - if there was already a plan then piecemeal changes by singular individuals of influence would not be as easily implemented (Al Ajmi) - Lacking transparency, no public hearing - ...for people to be aware of the land that will be affected. Also, there is the issue of fair compensation for taking land from people for public use: a lot of complaints have been brought before the Sultan about not being compensated fairly—they have families, long time tenure to the land, and they were taken advantage of. (Al Wahaibi) - Lack of public record access to land registry (Manaa)	Need for strategic plan to serve as basis for consistent decision-making
Political corruption (grand corruption)	Action to dissolve agency due to corruption - Dissolving the Supreme Council of Town Planning (as deemed by Article 53: Economic Incompatibility) - Greater direct oversight by the Sultan due to speculation of corruption	- Land speculation corruption - (The old council was halted due to) land speculation corruption and the Sultan disestablished them; basically they knew where certain projects, such as rail (high speed rail) and highways, were being placed so they bought the land in those areas so that the government would have to compensate them at a profit to use those lands for those projects… very expensive for the government. (Al Wahaibi) Favourable distribution of lands - Special note, that about 80% these (multi-unit housing complexes) plots are generally given out to official in ministries, military staff, lawyers and judges and people of other prominent positions in society (almost like a 'nobility' class). They are traded between each other, and are not sold to persons of non-status. The other 20% are sold at public auction. (Salim, housing broker)	Safeguards to prevent internal manipulation of land sectors for personal gain. - Improved general equity - Greater transparency - Improved checks and balance system - Harsher penalties

Table 2: Providing (tenure) security for all, pro-poor, fair			
What it means	How it demonstrates GLG	Areas of improvement toward GLG	Recommendations
Tenure rights and provision	Formal legislation for tenure rights Royal Decree No. 5/81 entitles and protects the entitlement of usufruct. Royal Decree No. 88/28 further defines the rights and obligations of land owners. The formal legality ensures tenure provision to high standard.		Caution should be taken in the case of protecting the newly achieved rights to land of women. Discussion about discontinuing land allocation to women may jeopardize tenure security for women who have been granted land by Royal Decree since 2008.
Pro-poor housing provision	Priority for social housing "Have given the priority for social housing. Ministry of Social Affairs has studied of the different types of family and where the low-income families are, they provide affordable housing options. There are no slums in Oman. The government looks out for people, and people look out for one another. Also, giving priority to people who work in nearby industries or factories." (Al Wahaibi)	This was not studied	
Security of livability and compensation	Correctional/compensatory measures "When there isn't a buffer of safety when new development encroaches on residential spaces, there is an effort to re-plan and to provide compensation." (Al Shidhani)		Preventative measure to minimize re-planning that requires encroaching on existing settlements.
Housing finance	Loans for pro-poor development There are some lending agencies and banks that provide loans for housing construction and development projects	Loans insufficient "They will lend up to 50% one's salary; this may not be enough, so generally two people apply for one loan." (Al Busaidi)	
Real estate market	Fair Real Estate Market Free trade market Does not fluctuate as much as in the US, for example "...prices were going up modestly before global crisis, and dropped during crisis; not harshly impacted by global financial crisis..." (Al Jahwari)	Speculation in Real Estate Market Some areas are prone to land speculation; examples of areas around The Wave (increased 4x in price, even without services); and in areas where Muscat Express is being expanded (Al Busaidi)	

Table 3: Ensuring strong capacities			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Interagency cooperation and coordination	Examples of good cooperation "To have a new (street naming) system in Muscat governorate. The old one is based on number, once it reaches 100,000 name in an area it collapses. Allocation of numbers is fixed in a seven digit number in the code. So it's good with a grid system that goes with unique street name. Huge countries have this system. This is not just applicable to Muscat but to whole country. We have experienced cooperation between the MoH and MM that is quite good and open. So the picture is not black and white." (Hauge) Example of Integrated Planning in Mutrah Mutrah is an exception. This is the first time that the Municipality has made a master plan which is not based on the directives, or is under the wings of the MoH. But, the MM has their own right to work on this master plan, and say that it is of national importance. It will not go to MoH for approval. It will go directly to the cabinet." *Is it because of its historical or heritage value?"* Yes, basically because of that. And also because it's a plan that must have an integrated approach… it's a redevelopment plan which is much more complex. A new development planning wise and development wise it is very straightforward. It effects much more the people living there running businesses there. It's a transition. Instead of ordinary development issues. There's (sic) a lot of negative impacts that need to be sorted out and balance. And mitigating efforts for people that have a disadvantage and need to be compensated. This is an example where a municipality has decided to do a plan and the decision and approval process is much more different than is normal in the country." (Hauge Oct 2012)	Lack of Planning Authority "There is no authority to ensure uniformity of plan" (Al Ajmi) "I don't know. The institution (the new Council) is not clear, who is in charge of what? Authority?" (Al Shidhani) "There has to be one body that has to make the decision, which is not a consensus decision. The consensus arrangement is just driving into dead end. Nothing will happen. That's what important to avoid for master plan." (Hauge) Improve Interagency Coordination "It's related to the whole responsible agencies and decision-makers. I have administrative agencies and executive agencies. There is no correlation between these agencies. Every agency works in its separate path. They have their own policies, schedules, financial scheduling, their own strategies… these kind of administrative and executive agencies do not work together to have a cumulative urban pattern at the same time. The Ministry of Housing where I work is only responsible for planning and giving you the land. The planning, subdividing and giving to local people, but the basic infrastructure is related to another ministry, which has its own strategies and schedule. I cannot tell ministry of municipality or transport, I cannot tell them that these people have their plots and that they need to provide those services." (Al Gharibi) Educational issues regarding inter-agency cooperation and project management (Al Ajmi) It's only by official letters. And sometimes we are making some committees between different agencies. (Al Jahwari) We know we should cooperate with other agencies, but we don't have a direct connection. It takes so much time to take their opinion. In some areas outside Muscat they are taking their opinion. They give them 3 months to take their opinion, for feedback. If they do not respond then they simply move forward with their plans (but at least they tried to get their input). Because you know we are facing the problem that we have to provide the plots, we still have to give	Designate an authority for master planning; NOT a matter of creating another agency, but coordinating agencies (Al Ajmi) Strengthening authority and "aligning the work of different authorities" (Al Ajmi) "Working as a team is very important. Put together the various experience of planners, engineers, and surveyors." (Al Wahaibi) Ensure all agencies have adequate stake and buy-in on projects. (Al Ajmi) Focus on comprehensive development of fewer areas, than on uncoordinated development of many areas (Al Ajmi)

Table 3: Ensuring strong capacities (continued)			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
	Integrated cooperation in redevelopment areas (like Mutrah) "I would think that eventually, particularly in the Muscat governorate, you have areas that are built up areas, then you come into the same sort of situation that if you do a redevelopment then the integrated approach between agencies at least becomes a matter of efficiency… and doing things less costly and within the time frame, and so on. It is a challenge to the autonomy of the various agencies because they would like to keep their domain and they would like to do their job, regardless of their impact to others. But in existing areas it is impossible to think that without the integrated approach… the infrastructure would be more and more demanding. So that drives to more integration." (Hauge)	100,000 plots in Muscat. And still they are taking some applications for plots. But it is a problem to provide this many plots in Muscat. In our policy, we can give the plot in any region. (Al Jahwari) Ministry of Housing and Municipality of Muscat – negative. Lack of coordinated efforts. People are suffering from lack of coordinated planning. Shatti, across from main road (near Hyatt)… there is commercial activities… there are different medical centers. Negatively impacts the neighborhood there. (Al Jahwari) Traditionally, they don't reveal data or cooperate, unless they are forced to. Hesitancy to talk to one another unless they need to... I'm sure that the coordination should have been better in areas where there are new developments… (Hauge) Lack of communication between two agencies has made his problem. Lack of coordination between agencies has created negative impact. Lack of form for planning. MoH deals with "document for a piece of land" describes the land. Has the detail of coordinates, need GIS. (Al Wahaibi) Conflict between two agencies: Do we prefer to join these two agencies… it must happen. Municipality and Housing should work together. (Al Wahaibi) There are some cases done case by case. We are trying to connect the master plan with the new plot. With the roads and these things. (Al Jahwari)	
Institutional assessment/ performance review	Process of annual monitoring Some monitoring by Ministry, Ministers and undersecretaries; high level monitoring (Al Gharibi) Congress (A'Shura Council). "The Minister of the MoH is invited annually to present to the council. Provide figures: how many cases we have studied/analyzed (some approved, some rejected)." (Al Wahaibi)	Lack of internal agency monitoring "Even as I am head of planning department, I cannot judge or evaluate. This is moderated by the Ministry, Minister and the Undersecretary. I cannot say this this doesn't work. They are the decision-makers; you cannot say 'no', we want this. This should be done in a collective. All the ministries responsible for urban development should work together." (Al Gharibi) Executive monitoring feedback not disseminated Minister does not bring feedback to staff to help improve capacity for broad ideological vision and guide capacity for decision-making	Develop an outcome based, purpose-driven framework to effectively monitor development and planning that includes a review of institutional and personnel capacity.

Table 3: Ensuring strong capacities (continued)			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Staff	- Good technically capacity - Well educated "This is a priority with one of the departments within the previous SC of Town Planning, but it's still a main priority and it's well understood that using GIS and this kind of tools this is absolutely necessary to keep track of data, statistics and doing the planning. This is the one area that they will succeed. They can establish a data bases and planning routine that are useful for the country. They are not that much dependent on outside decision. And it's also something of the education they can do a lot to attract young people to take courses and education. If you think about priorities. This Omanization is a key. At the end, the knowledge of society is there, more and more jobs are in the knowledge industry. It's not industry sector that makes more jobs, it's not fishery, when it comes to tourism… service will always be Asians, it won't be Omanis. But management that will be Omanis." (Hauge)	Hiring Favoritism Reported disinterest in applicants with planning backgrounds (Al Wahaibi) Omanization The Omanization Programme also elicited mixed perspective about its effectiveness. While good in concept, counter point of view consider it a hindrance to achieving the capacity needed now to ensure proper land management and overall development. (Hauge)	Enact policy to counter favorable hiring practices. Increase hiring of individuals with integrative and sustainable approach toward development. Apply performance evaluation strategies. Increase student internships and apprenticeships in urban planning.
Application of planning tools and best practices	Computerization Upgrading from Clarke 1880 to WGS 84 coordinate system to improve interagency data sharing and to adapt generally recognized planning standard.	Lack value for geography, demography "The two agencies are not aware about the importance of urban geography or demography." (Al Wahaibi) "People here don't use the census data… for population growth or economic development data. Major issue here. Only consider that they have surveyed an empty area, surveyors collect data about the area and pass it on to the planners to come up with a project. But there is no consideration for the people that live there, how many, what their ages are, etc. …census every 10 years. It's not used for planning issues… if they used these figures, all this data that has been captures, they could have solved a lot of planning issues (avoided them)." (Al Wahaibi) "Here if you arrange sustainable in the rural you will have less migration to the urban area. We want to have these people… we need to conduct a survey about what they do (professionally) so we can support them. Before oil-industry [sic] the basis of Omani income came from farms, etc., so we can support them to maintain their incomes." (Al Wahaibi) Lack value for sustainable land management Oman is still a developing country and does not have an awareness of the importance of urban planning yet. (Al Wahaibi)	Conduct and utilize demographic studies Use census data. (Al Wahaibi) Conduct studies to assess economic, social, cultural, spatial and ecological factors relevant to planning; utilize these studies in decision making processes. "...look at trends, population growth… to make appropriate projections." (Al Wahaibi)

Table 4: Efficient, effective			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Urban management	Strategic planning superfluous (at the time) The need for a national spatial strategy may not have been altogether necessary earlier. 'Organic' planning was "self-evident… it was correct… it was relevant... it was meeting the needs of the people." (Hauge) As per UN-Habitat... "Master plans need to allow for a degree of ambiguity, uncertainty and openness to change, recognising that a new community will develop best if it is allowed to be dynamic and to evolve in ways that the planners cannot entirely predict." Regenerating some vernacular designs and building techniques for dwellings can help achieve better flexibility of residence, as well as improved environmental performance (Box 17). (Sustainable Housing 2012, p.43) Benefits to organic, unplanned development "[Planning, to date has] maintained people's needs and initiatives of their own volition for housing provision better." (Maqbool) Urban sprawl may have been inevitable, even with a strategic plan in place earlier (Hauge) Examples of study-based planning and outcome assessment "We try our best to monitor the area. We received cases where they want to make Residential-Commercial area, we now say no until a study is conducted. If they need, they will need to provide the details: car parking, entrances/exits, etc. (no practice to provide multi-level parking structures). They need to provide numbers... the number of people or cars to accommodate." (Al Shidhani)	Lack of Strategic Planning No strategic planning (Al Gharibi) "We are not doing planning. We provide services. We are doing things based on needs." (Al Ajmi) "There is an old strategy in the 80s. They said they will make a new strategy in the high committee, but it has been cancelled. Waiting for new agency to make new strategy. Working from old strategy. We are following on the existing plan; we are making extension on the existing plans… there is already old plan and we are extending this plan we have some spaces, extending services like schools, health centers parks." "They have to make statistic [sic]. Population in each area. Need requirements/assessment. Government sector needs authority in that area. Assessment for economic development for each area. Not just going into planning without conducting any visibility planning." (Al Shidhani) "[Oman doesn't] have a master plan or comprehensive plan. Develop only according to the (immediate) needs; different than developed countries that have 50 year outlooks." (Al Wahaibi) "Having a strategic plan may have helped avoid urban sprawl." (Hauge) Determining good land use "One issue is mixed (uncoordinated) land use. Plots given out in residential areas assumed to be used only for homes, but some commercial construction goes up and causes conflict. Expectations for residential zoning are not met because case by case projects allow for commercial use in an area that already has residential use. Creates congestion, issues of lost privacy, etc. People get upset. Also, there are differences of opinion about the type of services that should be provided in mixed land use zones (i.e. medical facilities, etc.)." (Al Wahaibi) Examples of lacking study based planning "No. This is really a problem We just make subdivision, but there is no assessment of what is the result: environmentally, physically, socially (sic)." (Al Shidhani)	Consider reviewing master plan from 1970s by Mohamed Makiya as a basis for current strategic planning. (Al Ajmi) Establish and implement national strategic planning based on integrated development and established sustainability standards. (Al Wahaibi) Designating land for specific use: light or heavy industry, commercial, residential multistory, for example. (Al Wahaibi) Reserve land for use based on a 100-150 year outlook. (Al Wahaibi) Develop an outcome based, purpose-driven framework to effectively monitor development and planning, including capacity, citizen need and achievement of recognized standards for sustainable development.

Table 4: Efficient, effective (continued)			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Development	Project-orientated planning Planning has been successful on a project by project basis. Examples include The Wave, Salalah Beach and Sohar Port. Oversight over specific projects by authorities Robust infrastructure development Focus on expanding infrastructure, particularly road works, contributes to the "vision that people should be able to make their living in their own regions." (Hauge) Basic infrastructure well built Impressive development for a young country Would have been hard to predict such population growth Hard to predict the rapid flux of people into the capital region: Muscat and Sohar In comparison to the history of development of other countries, Oman similarly didn't see the value in promoting economic development within people's original regions. *"Because it's very easy to criticize. No parking, congested road… but it's very impressive to see the cities develop in 40 years. Whereas Europe and US has used 100s of years. So, it's unfair to say that planning has been poor because they have tackled a lot of complicated challenges. If you see how they managed this kind of population growth they didn't expect." (Hauge* Nov 2012*)*	Perceived planning failures/errors "New airport should be outside of Muscat. A bit further way to reduce traffic and to use the area for residential and commercial. It's a huge area that is wasted. There are other places (Barka, 30 min) that could be used. The money that would be generated using the Muscat land (for other purposes) could be used to develop the airport elsewhere." (Al Shihdani)	
Consistency		Excessive exceptions rather than standardization *(too many individual cases):* "I think you have to know first what is the work inside (sic). We have a lot of work here, especially with the planning. But it is single cases. Most of the work coming to us is single and this takes effort from us because we are not focusing on the bigger projects." (Al Jahwari) "Single cases are coming too much." (Al Shidhani) "First, to get a special program for the work flow here in planning. And to connect with other ministries. And we need to stop some single cases, like extension, because we need to study the entire plan together, not case to case. But we need some support from a higher authority to do this." (Al Jahwari)	Eliminate single case exceptions Establish protocol to minimize the burden of single cases. Create more stringent policy about exceptions to regulations.

Table 4: Efficient, effective (continued)			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Corrective measures		Need for re-planning and its associated costs "Al Amrat… major project underway but it is affect by the wadi. The compensation for these people to find them another plot is very costly for the administration. This was due to lack of planning and lack of studying the situation in the area before allocating plots." (Al Wahaibi) "Things are upside down now. Waiting for this study. Random zoning for residential, agriculture… too many complaints (lost privacy). The pause on change of use will help until study is completed. We cannot deal with individual case, but they are still bringing them. If you make mistakes with individual cases, then it will be harder to re-plan the area." (Al Shidhani) "Batinah region: Sohar ports. Big projects economic-wise. Problems with pollution in this area due to mixing residential and industrial. Residential is too close to industrial causing pollution issues. This study has been taking 8-9 years and it is still not finished. Especially the coastal road, there are some effected farms. They have to re-plan the area and compensate the people (with money)." (Al Shidhani) Reduced lack of information "...which leads to (reduction in) poor construction." (Al Wahaibi)	Adapt integrated master planning practices Improve accuracy of land data collection
Interagency system standardization and synchronicity	Prioritization of systems upgrade "Yes, they are making a tender for this to make a new system for GIS. We have a department here for GIS, this is being initiated here from the ministry (study to be conducted by an international consultation company)." (Al Jahwari) Shift from old geospatial system to new one: Clarke 1880 to WGS 84 recently implemented (Manaa)	Lack of centralize database Lack of adequate universal access to relevant information to aid in planning and implementation process "No centralized database of geo-spatial. We do have a GIS but not a centralized system. This needs to be outsourced to a consultancy form to create a platform that all agencies can use." (Al Wahaibi) "Need to get rid of the paper documents. Need geo-spatial database. The backbone is the survey department. They need to build their Geo-Spatial database." (Al Wahaibi) Lacking information causes costly errors "There is the electricity and the water. We do not have the details for all these services. They are underground and we don't have the details. Sometimes we make some plots and we find out that these plots already have some inside services. We are looking forward to making some link, but we need some special program. Our GIS is not working perfectly with other agencies." (Al Jahwari) "Poor construction takes place: example of cutting the fiber optic line, which is very costly." (Al Wahaibi) Excessive processing time Reduce time and effort for the private sector and citizens. For example, getting permits (e.g., No Objection Certificate or "NOC"). "Centralized online you get it in 5 minutes with online reply (with autocad drawing… submit a DWN file) instead of waiting 2-3 months." (Al Wahaibi)	Standardize system for MoH and MM Conduct interagency study to determine mechanisms to systematize and align admin. processes and data access in Upgrade data management systems and practices Complete upgrade to WGS 84 Streamline and digitalize admin. processes & records Modernize antiquated processes and record keeping methods to. For example, No Objection Certificate (NOC) should be accessible in a few minutes with an only request and reply. (Al Wahaibi)

Table 4: Efficient, effective (continued)			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Plot distribution process	Attributes of effective and efficient application process Simple process Minimal required effort for application Few documents needed No cost to apply, low cost to participate Clear application instructions Clear list of criteria Public announcement, National Gazette Good promotion by word of mouth	Attributes of ineffective and inefficient application process Application time has increased significantly from about 6 months to reportedly between 2-5 years	

Table 5: Sustainable			
What it means	How it demonstrates GLG	Areas of improvement toward GLG	Recommendations
Social sustainability	Attributes of social sustainability Provides privacy (related to such traditional matters as gender related discretion) Provides security for children Provides private open space for recreation	Attributes of lacking social sustainability Does not reinforce family ties and affiliations Does not promote neighboring and social capital Does not promote 'livable' community development Contributes to negative nutrition transition, more sedentary lifestyle and the potential for decreased well being Provision of land prior to provision of infrastructure Waiting for services - May take three months to get services - Some people don't care; they will construct anyway and wait for services to arrive - Some will rent elsewhere until services arrive - Electricity is plentiful, it can be provided by government within weeks - Water is scarce; semi-privatize service company cannot provide adequate water provision to all plot areas… this can take 3 months or more Inadequate security considerations "Matter of security; people don't want to bring their families to areas that don't have enough lighting in the evening and have a sense of being insecure." (Al Busaidi) "Half of wadis have been used for development. Failure of natural water drainage; dangerous for (those development areas) even with one hour of rain." (Al Ajmi) Increased demand for residential privacy supersede climate correspondence (construction) "...and they are mistaken... in the past, in the traditional oasis, they had more privacy than we do now. They had a courtyard, a semi-private space, this is also privacy. All the rooms are overlooking courtyard, and the buildings are joint together. I cannot say I make this set back 3 m from my neighbors… then I make the privacy… (didn't need to have such setback before to maintain privacy)… it can be fulfilled in a different way. These 3 meters can't be used in another way… it's wasted space. 60 meters lost in just one direction. High consumption of land. They want to create a privacy (sic) between two neighbors, but it cannot be fulfilled from this way. I can still see from 6 meters. Attached houses may have more privacy, actually… or other ways can be used to maintain privacy." (Al Gharibi) Increased demand for land area New demand for expansive housing typology	Comprehensive infrastructure provision Temporary moratorium on land provision until services can be adequately provided. Previous moratorium on development until coordination could be done, but Arab Spring came about and potential for revolution thwarted effort to undo uncoordinated planning. "It's for political reasons that they continue planning without fixing problems." (Al Ajmi) Create referendum for people to elect lands to be distributed only when services and infrastructure have been adequately provided Focus on comprehensive development of fewer areas, than on uncoordinated development of many areas (Al Ajmi) *[bullet used above]* Find solutions to address privacy with minimal land consumption Reconsider land area (size) for land provision Challenge expectation for housing typologies that do not promote broad sustainability Develop indicators for social sustainability that are utilized for broader development monitoring

Table 5: Sustainable (continued)			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Spatial sustainability	Common issue, not unique to Oman "But spatial planning is... and land use is a challenge for everybody, for every country. There's no immediate solution in your country. It's a matter of sustainability..." (Hauge) Principle for providing adequate land Abu Dhabi report states principle for making land provision at the rate of need (not excessive and not lacking) (Abu Dhabi Vision 2030). Muscat is trying to keep up with demand. This becomes a challenge when certain agencies are not capable of making their provisions before others (i.e., land can be surveyed, plotted and distributed before services can be provided).	High consumption of land "Then I make the privacy… (didn't need to have such setback before to maintain privacy)… it can be fulfilled in a different way. These 3 m can't be used in another way… it's wasted space. 60 m lost in just one direction. High consumption of land. They want to create a privacy between two neighbors, but it cannot be fulfilled from this way. I can still see from 6 meters. Attached houses may have more privacy, actually… or other ways can be used to maintain privacy. (Al Gharibi) Inefficient land use; 'patchy' development Large plot distributions and easements make for inefficient or diminished use of land in Muscat, which is already limited. Land remains unused as people wait to see what will happen to the area (when it will get services, worthy of investing, worthy location for living) Excess distance and transport Expands distances of travel for work, recreation and maintaining social ties	Need to reduce distance and automobile dependency Public education to curb excessive demand for an unsustainable land distribution process. Reduce land consumption, minimize inefficient land use Public education: "That demands a shift in mentality, shift in accepting less parking and facilities, changes in cost, change in behavior, etc. So I would say that sustainability is the issue that needs to be addressed. Partly because this is necessary to have a livable Muscat. Because the capital region will always expand." (Hauge) Develop indicators for spatial sustainability that are utilized for broader development monitoring
Environmental sustainability	Climate change mitigation strategies Environmental Investigation Agency (EIA) and UN regulations and monitoring "...they (Oman) have their commitments to the UN. Partly because this is necessary to have a livable Muscat. Because the capital region will always expand." (Hauge)	Lack of climate change mitigation measures Population density: effect on GHG (CO_2) "Spatial planning is… a matter of sustainability, and CO_2 emissions (environmental impact). That's what needs to be addressed. How do they manage to get the CO_2 down? That's where the more dense (sic) city comes in as the more strategic directions. That's where public transport that you and I have been used to come into it. That demands a shift in mentality, shift in accepting less parking and facilities, changes in cost, change in behavior, etc. So I would say that sustainability is the issue that needs to be addressed. Also because they have their commitments to the UN. Partly because this is necessary to have a livable Muscat. Because the capital region will always expand." (Hauge)	Need mitigation measure and focus on adaptation strategies related to climate change
		No monitoring of environmental impacts "We have a chapter in our proposal on sustainability. We discuss elements that should be addressed. We discuss CO_2 emission. Right now it's not an issue. In Mutrah, it's not bad at all. It's a dense city… densest part of the city, all other parts of Muscat are much worse. One thing is the water consumption because it's produced through desalination (CO_2 heavy). Efforts to reuse of water… everything comes tout to reduce water consumption which would reduce CO_2 emission. But apart from EIA, you have to go through very formal regulations for development." (Hauge)	

Table 5: Sustainable (continued)			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Durability, longevity		Planning is short term (5 year) "Planning is very limited to one or two years. I believe when you give citizens a plot to build their house, but you don't provide the services then the area is useless. They are giving the plots before building the infrastructure, for example the Al Amrat region." (Al Wahaibi) One to two year planning is considered 'moderately unsustainable' by "Class System" standard.	
Integration with other issues of development		Negative impacts on many other areas of planning "But this is also due to urban management; we have poor urban management. We have how land is managed and distributed, it effects outcome... urban outcome… there is no strategy which is clear. Maybe you cannot verify if it is a town center or something else… this is due to the poor urban management." (Al Gharibi) Accumulation of issues related to planning implemented without strategic consideration. (Al Ajmi)	
Equity		Lack of sense of equity In one case, an individual is boycotting the plot application process on principle (Maqbool)	
Purpose-driven and outcomes oriented	Initiative regarding SLM in motion "Discussion of sustainability has begun (in meetings, at conferences)." (Al Ajmi) Development of Majestic Muscat projects; aspirations to implement those projects with partnership. (Al Ajmi) Urbanoman Conference 2011 (2012 postponed).	SLM is rhetorical "Without continuous support of authority, no actual steps are taken for sustainable development." (Al Ajmi) Failure to achieve intended outcome Plots that are distributed are not always used for intended purpose (e.g., construction of residence or sale). Plots are sometimes sold immediately in cases where owners (often younger) need immediate money. This compounds the problem since these individuals may never be able to afford land again. Requires heavy demand and investment for infrastructure and service provision on part of the government. Lacking policy to ensure that distributed land is used for its intended purpose "Once the person got this plot, he is not forced to build it in a certain time. He has the power to reserve it for a certain time or sell it. This is really a big fault. If I give you a plot for free, you will go and there is no certain time to develop it, no specific regulations… this is also due to satisfy the equilibrium of how land is granted. They want to satisfy the people by the government, not to differential the citizens. They are in the same range. They don't want to make something… it's an outcome that we see here. Here in Muscat, the development is so fast, if the population is growing so fast… so maybe this area will grow very fast for 5-6 years. But Muscat population is different than other parts of Oman. Muscat has the highest density and hosts 30% of the population of Oman and its rapidly growing. The urban management is the same, though, same as other areas of Oman." (Al Gharibi)	

Table 5: Sustainable (continued)			
What it means	**How it demonstrates GLG**	**Areas of improvement toward GLG**	**Recommendations**
Best practice: good governance	Examples of good participation "Sometimes there is in the old area. Some-times there is a wali office and we ask them if there are some problems in the area. And there are also some demands that come from the wali office, some parts of the land they need to be like graveyards, this comes from them. And we are also cooperating with other agencies." (Al Jahwari) "Including the participation of local municipal councils (local residents) allows for more local insight to be considered in planning and development." (Al Ajmi)	Examples of poor participation No real citizen participation. (Al Jahwari) "Planners need to be on the site, negotiate, socialize with the community, hold public hearings, etc." (Al Wahaibi) He provided the example of a cement factory that was built too close to a residential community: "...created issues for costly compensation of the residents and the health implications. May not even have other plots for them. Maybe they are from that wilayat and they don't want to leave there." (Al Wahaibi) "When you develop an area, you need the people from the area to fully participate. They understand the history of the land (natural disaster, etc.) so you have the benefit of their historical account. You can also get some indication from geologists. There is a great liability for implementing a project that leads to the death of thousands. There is also response from the international community." (Al Wahaibi)	

H – Questionnaire on residential land distribution in Muscat, Oman

Survey Questions

Demographic

What is your age?

What is your gender?

Have you applied for a residential land plot?

Has anyone in your family applied for a residential land plot?

Has anyone in your family received a residential land plot? What kind of home do you currently live in?

What area do you live in?

How many bedrooms are there in your home?

How many people live in your home?

Housing typology

What do you like most about your home?

Location and land use

If you imagine selecting the site and developing your own future home, what factors are important for you?

Why are you interested in applying for a plot?

Why are you NOT interested in applying for a plot?

If you plan to apply for a plot, what do you plan to do with it?

Daily life as it relates to housing needs

In general, what are important 'modern' considerations that should be taken when planning residential areas in Muscat today?

How do you think/feel life is changing here as Muscat grows and develops?

Culture and tradition

In general, what are important 'cultural' or 'traditional' considerations that should be taken when planning residential areas today?

How important is the preservation of Omani culture in housing typology and residential spatial planning?

Community

What things are important to you when you picture your future neighborhood/community?

Administration: plot application system

How familiar are you with the plot distribution policy and application process? What do you know about the plot distribution policy and application process?

How effective is the current plot distribution system for providing Muscat inhabitants with residential land?

What are some advantages of the current plot distribution policy? What are some disadvantages for the current plot distribution policy?

Sustainability

What do you to be more 'sustainable' your day-to-day life in Muscat?

In your opinions, how does urbanization impact social, spatial, environmental and economic conditions in Muscat?

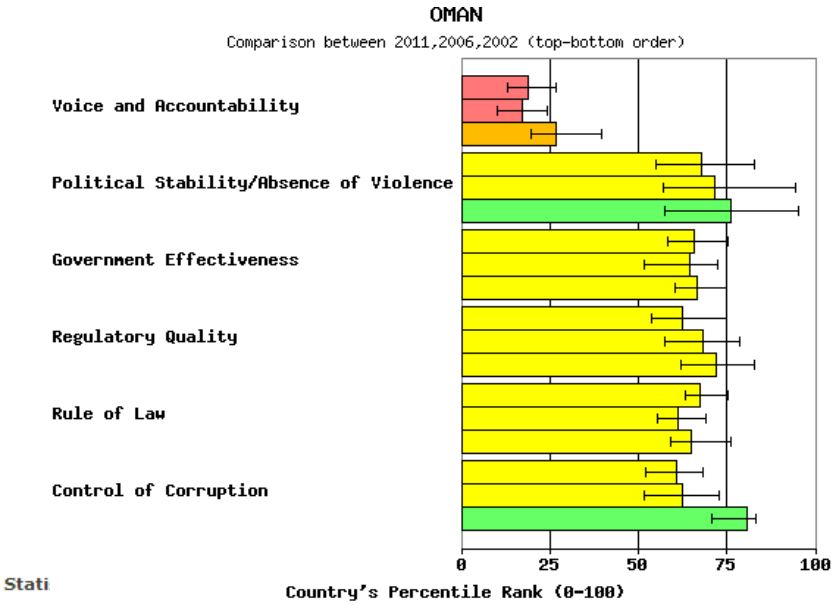
Other

Additional comments regarding residential plot distribution in Muscat

I – Assessing Social and Spatial Housing Needs of Citizens for Issues for which Indicators May Be Established

Residential Needs of Citizens	**Related Indicator**	
Hypotheses of Issues	(Quantitative)	(Qualitative)
Distances between family members are growing (and with that, commutes for family events will increase)	• Commuting distances • Commuting times (especially related to non-work related drives)	Perception of commuting distances
Family size may change due to limitations of space, residential density, economic pressure (increasing housing prices)	• Family size (census) • population growth	Feedback on family planning related to housing requirements and access
Shift from perception of home as a homestead to home as a capital asset	• Data on borrowing against homes • Data on home resale transactions • Housing prices	Survey regarding home use and perception of home
Privacy is diminished due to proximity to commercial buildings, etc.	• Filed complaints regarding privacy matters	Survey regarding residential privacy
Demand for services and infrastructure will continue to increase and outpace the capacity for S&I provision (increase in complaints over S&I that is inadequate or altogether not provided)	• Statistics on number of plots developed • Stats on number of applications vs. number of available plots	Satisfaction with utility, roadwork and municipal service provision
Increased costs related to redistribution of plots due to lack of adequate planning foresight	• Data on development areas that have undergone change since establishment • Number of plots that had to be reallocated • Number of complaints demanding relocation	Satisfaction with adjudication process Sense of fairness for compensation due to eminent domain
Increase in rental use of in-law units/guest houses	• Number of permit for housing extension • Number of owners who rent • Number of permits for owners to resell their house	Perception of rental market Survey of landlords
Change in perception of neighboring	• Number of complaints filed regarding neighbor issues	Survey of social capital

ANNEX
World Governance Indicator 2011 Assessment of Oman



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Country	Sources	Year	Percentile Rank (0-100)	Governance Score (-2.5 to +2.5)	Standard Error
OMAN	7	2011	65.9	+0.43	0.21

90th-100th Percentile | 50th-75th Percentile | 10th-25th Percentile
75th-90th Percentile | 25th-50th Percentile | 0th-10th Percentile

(Source: Worldwide Governance Indicators, 2012. Available online at http://info.worldbank.org/governance/wgi/index.asp) accessed 5

Reviewing Existing Assessment of Good Land Governance in Oman

The recommendations herein presented can be reviewed alongside other established assessments. The Worldwide Governance Indicators (WGI), as previously outlined in the literature review was applied for Oman. Using the online instrument, a comparison of good governance criteria over three different assessment years was presented. There was overlap in some of the WGI indicators and the principles for good land governance, including accountability, effectiveness and rule of law. The comparison of 2003, 2006 and 2011 datasets revealed overall declining good governance in the Sultanate. Of the six governance criteria under review only the rule of law showed some indication of improvement. All the other criteria--Voice and Accountability, Political Stability/Absence of Violence, Government Effectiveness, Regulatory Quality and Control of Corruption--showed significant decline. In the cases of three of those criteria, the decline puts them in lower-tiered categories for international comparison. Overall, Oman achieves a 65.9 percentile for Government Effectiveness based on a comparison of select countries, which places it in the middle-tier for international good governance standards (see Annex).

You've really ready this far? ☺