Spring 2014

Increasing the Supply of Affordable Housing in Urban India - Mumbai

Upasna Viswanathan
Purdue University

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Is approved by the final examining committee:

Mark E. Shaurette
Jessica E. Anderson
Bryan J. Hubbard

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Mark E. Shaurette

Approved by Major Professor(s): ________________________________

Approved by: Bryan J. Hubbard 04/14/2014

Head of the Department Graduate Program  Date
INCREASING THE SUPPLY OF AFFORDABLE HOUSING IN URBAN INDIA – MUMBAI

A Thesis
Submitted to the Faculty
of
Purdue University
by
Upasna Viswanathan

In Partial Fulfillment of the
Requirements for the Degree
of
Master of Science in Building Construction Management

May 2014
Purdue University
West Lafayette, Indiana
Appa and amma, I dedicate my work to you both. You made me who I am today, and I owe all of this to you. You gave me the freedom to pursue my dreams, and the all love and support I needed through my journey. I hope I make you proud.
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LIST OF ABBREVIATIONS

AH – Affordable Housing
CREDAI – Confederation of Real Estate Developers’ Association of India
DCR – Development Control Regulations
EWS – Economically Weaker Sections
FSI – Floor Space Index
HIG – High Income Groups
JV – Joint Venture
LIG – Low Income Groups
MHUPA – Ministry of Housing and Urban Poverty Alleviation
MIG – Middle Income Groups
NOC – No-Objection Certificate
PAP – Project Affected Party
PPP – Public-Private Partnership
RCA – Rent Control Act
STP – Special Township Policy
ULCA – Urban Land Ceiling Act
ABSTRACT

Viswanathan, Upasna. M.S., BCM, Purdue University, May 2014. Increasing the Supply of Affordable Housing in Urban India - Mumbai. Major Professor: Mark E. Shaurette.

The need for housing in today’s world is irrefutable. The growing population, accompanied with the fast pace of urbanization, are producing great housing demand, in urban areas in particular. This study focused on one segment of housing – affordable housing, in Mumbai, India, the demand for which has been on a steady rise over the past decade. Though traditionally the State was the provider of affordable housing, private sector has been increasingly involved in the segment, beginning the economic meltdown of 2008-2009. Yet there is a huge demand-supply gap that exists, which needs to be filled. The researcher looks at private developers as a solution to this issue. By identifying one of their key concerns when dealing with this segment of housing, and building a framework for best practices in the given area of concern, this study hopes to entice private developers to be more involved in developing affordable housing.
CHAPTER 1. INTRODUCTION

1.1 Background

India's rapid population growth has resulted in her having the second largest population in the world today. Of this one billion plus population, over 31.3% live in urban areas today. Urbanization is expected to rise to over 39.8% by 2030 (United Nations, 2011). One consequence of this rapid urbanization process is an acute shortage of housing and related infrastructure, especially for the poor and low-income households (Sivam & Karuppannan, 2002). The total urban housing shortage is 26.53 million dwelling units as of 2012, and of this the majority is in the lower and middle income groups (MHUPA, 2007).

Table 1.1

*Housing Shortage (millions) in India 2007*

<table>
<thead>
<tr>
<th>Category</th>
<th>Housing Shortage as of 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economically Weaker Sections (EWS)</td>
<td>21.78 million</td>
</tr>
<tr>
<td>Low Income Group (LIG)</td>
<td>2.89 million</td>
</tr>
<tr>
<td>Middle &amp; High Income Group (MIG + HIG)</td>
<td>0.04 million</td>
</tr>
<tr>
<td>Total</td>
<td>24.71 million</td>
</tr>
</tbody>
</table>

Source- 11th 5 year plan, MHUPA, Government of India, 2007
Traditionally affordable housing was the responsibility of the Government, but the private sector is increasingly becoming a part of it. The Government by itself has been unsuccessful in providing adequate housing infrastructure, and this has played a key role in the increasing housing shortage (MHUPA, 2007). Other factors that have aggravated the housing situation are Government and institutional deficiencies, and regulatory constraints to new housing development and investments, such as the Urban Land Ceiling Act and the Rent Control Act (KPMG, 2010).

The heavy involvement of private developers in affordable housing began during the economic slowdown of 2008-2009. Initially they primarily targeted high-end and upper-mid housing segments, since these fetch better profits over low income housing (LaSalle, 2012). With economic crisis in 2009 the market for high-priced homes contracted, and lower and lower-mid segments started appearing lucrative. Many companies saw an opportunity in these lower-income segments (KPMG, 2010). The tremendous need for affordable housing made it a solution to the liquidity problems of developers (IBEF, 2012).

Today there is enormous housing shortage, and private developers are a promising solution to this problem. However private developers are hesitant to be vigorously involved in this sector because of various problems they face. Economics is a big concern due to land availability, capital for land and approval processes (5th GHFC, 2012). Other issues private developers face are profitability, restrictive density norms, volume off-take and delay due to regulatory approvals (NAREDCO, Knight Frank, 2012). Thus there is a need to entice
private developers to be more involved in affordable housing by addressing their concerns and at the same time reinstating the need for affordable housing today.

1.2 Significance

India’s urbanization by 2030

1. 590 million people will live in cities
2. 270 million people net increase in working-age population
3. 70 percent of net new employment will be generated in cities
4. 91 million urban household will be middle class, up from 22 million today
5. 68 cities will have a population of 1 million plus, up from 42 today
6. $1.2 trillion capital investment is necessary to meet projected demand in India’s cities

Source: India’s urban awakening- McKinsey Global Institute, 2010

The above numbers give an idea of the magnitude of the housing problem in India. The demand for housing is growing exponentially, but it is not met with adequate provision of housing. It is found that formal housing agencies in both the public and the private sector are neither building fast enough to meet demand nor cheaply enough to reach the poor. If the current housing shortage trend continues, unplanned growth and informal settlements will consume several parts of major cities and hinder growth at economic, environmental and social fronts (LaSalle, 2012, Billand, 1993).

Private developers are hesitant to get more involved in affordable housing due to various concerns. Studies by various organizations help provide some
insight to the reasons for this reluctance, and the gaps that need to be filled in the market today (Figure 1.1 and Figure 1.2). The most common concerns of private developers appear to be capital, availability of land, mindset of developers and regulatory concerns. These are areas that require careful assessment and understanding, and tackling these issues will be the first step towards better understanding the problem.

Figure 1.1 Affordable housing supply challenges

Source: A Perspective from India On Affordable Housing - The 5th Global Housing Finance Conference, 2012
Finding solutions to address these problems can go a long way in getting the private sector more involved. Private sector has in several cases proved to be more successful in providing faster projects and better serviced lands than Government projects (Billand, 1993). Private developers have in the past found unique ways of financing and resourcing. Their involvement also brings about innovations on the technological and design front. Improved delivery systems, faster construction and cheaper and sustainable solutions also become a part of the equation. Thus enticing private developers to be more involved in affordable housing can have benefits at various levels.
1.3 Statement of Purpose

The principal purpose of the study is to identify best practices in one crucial area of the affordable housing segment in Mumbai, India, and to develop a framework that can help guide private developers to better tackle their concerns. By understanding key reasons for reluctance by private developers to be involved in the affordable housing market, and identifying best approaches to tackle these, the bigger aim of the study is to entice more developers to be involved in developing affordable housing. The insights contained in the study can thus help increase the supply of affordable housing in urban India (Mumbai in particular) by looking at private developers as a solution to the problem at hand. While attempting to understand the research problem of affordable housing, the study will include the objectives of:

1. Understanding the current housing needs and shortage in India
   - Numbers, facts, figures
2. Understanding the primary players (private & public) in affordable housing
   - Identify the role of each, and importance of each sector
3. Identify why there is inadequate private sector involvement
   - Reasons for reluctance to be involved
4. Weigh the different reasons with their importance
   - Identify one aspect to focus upon
5. Understand the regulatory framework supporting affordable housing
   - Comprehend how the regulatory framework and existing policies and acts affect the identified key aspect of concern
6. Develop a framework for best practices in the identified key area of concern

- Entice private developers to be more involved in affordable housing

1.4 Research Question

Housing is a basic need for people, and it is the responsibility of the Government to ensure the availability of housing to all. The government has developed lots of policies, acts, laws and regulatory frameworks to address various aspects of the affordable housing segment. It serves as a facilitator to the provision of housing. Yet the shortage of housing in India is irrefutable. The private sector plays a significant role in reducing this housing deficit, by being the primary provider. But private developers are faced with multiple concerns while doing so. It is not the lack of policies or regulations deterring the private sector from being more involved in the affordable housing segment. It is about being able to work well within this existing framework of government enabling. This study deals with this aspect of practical survival in the existing regulatory framework of housing provision. The city the study was carried out in was the metropolis of Mumbai, Maharashtra. Thus while the bigger picture at hand deals with how to expand affordable housing supply in India (Mumbai) to meet the growing demand for housing, the exact research question is –

“What are the best practices with respect to land, for private developers in Mumbai, to help them be more involved in developing affordable housing”? 
1.5 Assumptions

The following assumptions were inherent to the pursuit of this study:

1. There was a need to verify findings from the limited literature sources available about affordable housing, through interviews.
2. There was a need to conduct interviews of employees in private developing companies to understand the mindset of the private sector involved in the affordable housing segment.
3. There was a need to understand the viewpoints of multiple stakeholders in the affordable housing segment. Not just developers, but also urban planners and land acquirers.
4. The interview participants answered all interview questions honestly and accurately, to the best of their knowledge.
5. Findings from a few private developers in Mumbai can be used to draw conclusions about the private developers all through Mumbai.
6. Two separate levels of interviews were essential for the research – one to verify literature findings and provide a clear direction of focus, and the other to understand the specifics of the problem on hand.
7. The existing policy framework can help address the main concerns of developers, people just need the knowledge to do so.
8. The findings from the study can provide meaningful insights which can have practical implications in increasing affordable housing in Mumbai.
1.6 Limitations

The following limitations were inherent to the pursuit of this study:

1. The study was primarily driven by findings from interviews alone. Literature review alone couldn’t provide sufficient insight to this problem, and interviews were the chosen as the only method for data collection.

2. The number of interviews were limited by the number of volunteers (private developers) who were willing to participate in the study.

3. The number of interviews were also limited by the time frame the researcher was able to spend in India, for the first round of interviews.

4. The possibility of a survey encompassing a larger group of people was ruled out keeping in mind the Indian setting.

5. The time frame of the entire study was limited to time available to complete the thesis at Purdue University.

1.7 Delimitations

The following delimitations were inherent to the pursuit of this study:

1. The research was delimited to one metropolitan city – Mumbai, and this city was picked based on its high affordable housing shortage, and also by convenience of language and location.
2. The private developing companies chosen for study were picked based on their membership with CREDAI (Confederation of Real Estate Developer’s Association of India).

3. People interviewed were of managerial position and above, with a minimum of 10 years work experience in the field of affordable housing.

4. The first round of interviews were conducted in winter 2013, in person, after the proposal defense.

5. The second round of interviews were conducted via skype and over the telephone, due to time, geographical and fiscal constraints.

1.8 Definition of Key terms

Affordable Housing

The term “affordable” can have varied interpretations based on the context and situation. Affordable housing is defined in several ways by different organizations and countries. The definition of affordable housing as pertains to this study is

The Ministry of Housing and Urban Poverty Alleviation (MHUPA), India defines affordable housing for the middle-income group and below as one where the equated monthly installment (EMI) or rent does not exceed 30%–40% of a resident’s gross monthly household income.

Affordable Housing Policy

UN-HABITAT defines an affordable housing policy as a policy which ensures that housing costs are financially affordable to all social groups,
and that price-to-income ratio and rent-to-income ratio are maintained within acceptable limits to enable all social groups to access adequate shelter options.

Low cost housing

In India ‘Low Cost Housing’ is primarily aimed at Economically Weaker Sections (EWS) & LIG groups with the intervention & involvement of the Government to be prominent. -Indian Habitat Summit, 2009

Table 1.2

Differentiating low income housing and affordable housing

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Low Cost Housing</th>
<th>Affordable Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amenities</td>
<td>Bare minimum to none</td>
<td>Basic</td>
</tr>
<tr>
<td>Target class</td>
<td>EWS &amp; LIG</td>
<td>LIG &amp; MIG</td>
</tr>
<tr>
<td>Size of dwelling</td>
<td>&lt; 300 sq. ft.</td>
<td>300-1200 sq. ft.</td>
</tr>
<tr>
<td>Location</td>
<td>Generally within cities, but also on city peripheries</td>
<td>Within city</td>
</tr>
<tr>
<td>Project developer</td>
<td>Mostly Govt. agencies</td>
<td>Private &amp; Government</td>
</tr>
<tr>
<td>Finance source</td>
<td>Micro finance institutions</td>
<td>Traditional banking system</td>
</tr>
<tr>
<td>EMI to Income</td>
<td>&lt; 30% of gross monthly income</td>
<td>&lt; 40% of gross monthly income</td>
</tr>
</tbody>
</table>

Source: KPMG Analysis 2010, Knight Frank 2012
Urban area

The Indian Census defines an urban area as one that has

i. A minimum population of 5000

ii. At least 75% of the male working population engaged in non-agricultural pursuits

iii. A density of population of at least 400 per sq.km (1000 per sq. mile)

1.9 Summary

This chapter aims at setting the stage for the research study. It introduces the topic of research and its background. The practical significance of the problem, the gravity of it and current trends are then established. The chosen topic is then narrowed down into the actual statement of the problem. Learning objectives and areas of interest are also laid out here to better explain the intent of the research. The research question is thus arrived at and clearly stated. Following the research question the assumptions, limitations and delimitations are laid out. The chapter then delves into definitions of key terms which are essential to the study at hand. The chapter concludes with this summary.
CHAPTER 2. LITERATURE REVIEW

“Housing is not an innocent bystander…but an active object of alienation, injustice, inaccessibility, exclusion, marginalization and impoverishment”

-Teymur, 1996

This chapter summarizes literature research in the field of affordable housing in urban India. The literature research aims to focus mainly upon activity in the housing sector and about specific constraints which hinder active involvement by the private sector in the affordable housing sector. The chapter will touch upon the individual roles of the private and the public sector and how they impact housing supply. The aim of the chapter is to identify an area of interest which can be focused upon, and the understanding of which can help increase the supply of affordable housing in Urban India. India being a varied and complex country having different regional needs, the study shall in particular focus upon Mumbai, Maharashtra.
2.1 Affordable Housing – Definition, Numbers & Trends

The term “affordable” can have varied interpretations based on the context and situation. Affordable housing is defined in several ways by different organizations and countries.

- The generally accepted definition of affordability as defined by the US Department of Housing and Urban Development is for a household to pay no more than 30 percent of its annual income on housing.
- The HREA (Human Rights Education Associates) defines affordable housing as housing for which the associated financial costs are at a level that does not threaten other basic needs. States should take steps to ensure that housing costs are proportionate to overall income levels, establish subsidies for those unable to acquire affordable housing, and protect tenants against unreasonable rent levels or increases. In societies where housing is built chiefly out of natural materials, states should help ensure the availability of those materials.
- KPMG & the Confederation of Real Estate Developers’ Association of India (CREDAI) have jointly developed definitions of Affordable Housing for Tier I, II and III, based on three key parameters – income level, size of the dwelling unit and affordability.

In the context of the United States, a literal translation of the cost of an Affordable Indian home, would be a house that ranges between $5000 and $42,500 (costing between 3 lakh and 25 lakh Indian rupees).
Table 2.1

Affordable housing defined by KPMG

Affordable housing based on income level, size of the unit & affordability

<table>
<thead>
<tr>
<th>Income level</th>
<th>Size of unit</th>
<th>Affordability</th>
</tr>
</thead>
<tbody>
<tr>
<td>EWS</td>
<td>&lt;INR 1.5 l.p.a</td>
<td>Upto 300 sq. ft.</td>
</tr>
<tr>
<td>LIG</td>
<td>INR 1.5 - 3 l.p.a</td>
<td>300-600 sq. ft.</td>
</tr>
<tr>
<td>MIG</td>
<td>INR 3 - 10 l.p.a</td>
<td>600-1200 sq. ft.</td>
</tr>
</tbody>
</table>

In the Indian setting a simplified understanding of an affordable house is one which provides adequate shelter on a sustained basis ensuring security of tenure, and one that is easily available within the means of the household (RICS, 2010). The understanding is that such a home is one which where the EMI or the rent per month does not exceed 30-40% of the monthly income, and varies in size from 300-1200 sq.ft, as defined by the MHUPA in 2008. This is the definition that shall be followed in this study. There is also a difference between Urban and Rural housing needs. Affordable housing in Urban India caters primarily to housing for the LIG and MIG, and is usually in the range of 3-25lakhs per unit, while in Rural areas it refers mainly to EWS and LIG, is lies in the range of 3-8 lakhs (MHUPA, 2012).

To understand the housing situation in India it is essential to know the actual numbers and trends in the sector. These reveal that the urban population is growing at a fast pace, and there is a need to address housing in Urban India.
Table 2.2

Population growth and housing demand, India

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (million)</th>
<th>Urban Population (%)</th>
<th>Rural Population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>429.23</td>
<td>17.97</td>
<td>82.03</td>
</tr>
<tr>
<td>1971</td>
<td>598.15</td>
<td>18.24</td>
<td>81.76</td>
</tr>
<tr>
<td>1981</td>
<td>683.32</td>
<td>23.34</td>
<td>76.66</td>
</tr>
<tr>
<td>1991</td>
<td>844.32</td>
<td>25.72</td>
<td>74.28</td>
</tr>
<tr>
<td>2001</td>
<td>1027.01</td>
<td>27.78</td>
<td>72.22</td>
</tr>
<tr>
<td>2011</td>
<td>1210.19</td>
<td>31.16</td>
<td>68.84</td>
</tr>
</tbody>
</table>

Source: Complied from Census, Government of India

Table 2.3

Housing shortage – Total & Urban (million), India

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (million)</th>
<th>Urban Shortage</th>
<th>Total Shortage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>429.23</td>
<td>3.6</td>
<td>15.2</td>
</tr>
<tr>
<td>1971</td>
<td>598.15</td>
<td>2.9</td>
<td>14.5</td>
</tr>
<tr>
<td>1981</td>
<td>683.32</td>
<td>7.0</td>
<td>23.3</td>
</tr>
<tr>
<td>1991</td>
<td>844.32</td>
<td>8.2</td>
<td>10.56</td>
</tr>
<tr>
<td>2001</td>
<td>1027.01</td>
<td>8.9</td>
<td>24.71</td>
</tr>
<tr>
<td>2011</td>
<td>1210.19</td>
<td>9.1</td>
<td>26.5</td>
</tr>
</tbody>
</table>

Source: Compilation of data from National Buildings Organization(NBO), MHUPA

In today’s urban Indian residential market the demand for affordable housing far outweighs the supply. In some states the demand is three to four times the supply. As of 2012, some of the states with maximum housing needs include Uttar Pradesh (3.07m), Maharashtra (1.94m), West Bengal (1.33m), Andhra Pradesh (1.27m), and Tamil Nadu (1.25m). State-wise data reveals that just 9 states contribute to 76% of the housing shortage in India, and include all major metropolitan cities. The state narrowed down for this research is
Maharashtra, with a focus on Mumbai. All states with major metropolitan cities figure in the top 8 list. Mumbai, Bangalore, Calcutta, Chennai, Delhi are all cities battling the affordable housing scarcity problem. The trend over the years reveals that the housing supply issue is still on a rise, and if not addressed soon will result in deploring cities in India. The housing shortage numbers justify the significance of the affordable housing issue at hand.

![State-wise housing shortage in 2012](image)

**Figure 2.1 Housing shortage in India, 2012**


### 2.2 Role of private and public sector

The sheer magnitude of affordable housing shortage in India demands participation from both public and private sector. Public sector alone is unable to
cater to this huge demand due to lack of adequate resources and budgetary constraints (MHUPA, 2013). Only 16% of the total affordable housing supply in India is provided by public housing and the remaining 84% is by private, public-private partnerships (MHUPA, 2007). The key players in this sector are the private developers who still have a huge shortage to cater to. The primary focus of these private developers is on the higher end of the spectrum of affordable housing, even though they also have the capacity to address the lower end.

![Figure 2.2 Private & Public sector roles](image)


The private sector can contribute further to the affordable housing market. Their involvement can be spanned out over the entire spectrum of affordable housing, and extended to cater to homes in the range of 3 – 8 lakhs as well.
Enticing private developers to also heavily engage in the lower price ranges is essential to meet the growing housing shortage. Thus there is need for the public sector to do the necessary—Government intervention is essential.

Internationally too, affordable housing is a problem faced by several countries. The dynamics of the public-private sector is unique in these countries. Understanding the roles that the two sectors play and the status of affordable housing in these countries can be a learning point for India. The private sector takes the lead in affordable housing in India but the role played by the Government is key.

Table 2.4

*Government-private roles internationally*

<table>
<thead>
<tr>
<th>City</th>
<th>Framework</th>
<th>Planning</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>Actors</td>
<td>Vision</td>
</tr>
<tr>
<td>Vancouver</td>
<td>Mixed</td>
<td>Many</td>
<td>Mixed</td>
</tr>
<tr>
<td>SanFrancisco</td>
<td>Mixed</td>
<td>Many</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

Source: RICS Report, making affordable housing work in India.
Literature shows that the most successful form of public involvement in developing nations is when the Government plays the role of the facilitator not the provider (Angel, 2000). This has been the case for several countries that have been more successful in addressing affordable housing supply concern. It can be inferred that the primary role of the public sector should be to act as the facilitator enabling private sectors to work better in the housing market (Sivam, 2002; Arnott, 2008; MHUPA, 2013). In India too this has been the case over the years - the role of the Government has changed to better facilitate private sector involvement. Yet the private sector is hesitant to be involved heavily in affordable housing projects. The affordable housing market has a huge untapped potential, which can lure the private sector.

The private and the public sectors need to work together and at tandem to address the issue of affordable housing in Urban India (LaSalle, 2012; KPMG, 2010). There is increasing public-private partnership ventures. Studies have proved that these ventures are essential to meet the needs of the growing affordable sector. While some studies say that this enabling of the market by the Government has to be done very carefully and with caution (Mukhija, 2004), at large there is consensus about the importance of public facilitation for private involvement. Thus studying an aspect of public role which directly impacts the private sector will be a meaningful approach.
2.3 Reasons for private sector reluctance

Private developers in India have several concerns which deter them from being more involved in the affordable housing sector. Developing affordable housing in India faces challenges at various levels due to economic, social, regulatory and urban issues (Todi, 2009; GHFC, 2012; LaSalle, 2012). Some key reasons for reluctance of private developers to be involved in affordable housing are:

- Unavailability of urban land
- Land costs
- Lack of adequate infrastructure
- Regulatory concerns - delay in approvals & multiple stage processes
- Rigidness of archaic laws & their inapplicability in today's market
- Lack of clarity in national and state level laws
- Limited profit margins
- Financing options for developers

Land availability and land prices heavily impact involvement by the private sector. Limited land availability due to the rapid pace of urbanization is a key factor in driving land costs and thus costs of construction which play a big role in deterring private sector to be more involved. Land prices are also driven by location and regulations and by land title issues too. Government is the primary entity which can make land available to private developers for housing, and is also the governing unit for land titles. Lack of available land directly impacts supply rate, and the gap between demand and supply leads to higher costs of
housing (Wadhwa, 2009). Housing costs are a key concern for the developers too, as this also impacts demand. Thus tackling this cyclical loop of land related concerns is key to affordable housing supply.

Lack of infrastructure as a support system is yet another lacking feature in the Indian scenario. With proper backing the private developers can find avenues for good profitable ventures even in affordable housing. Land and construction costs are at a high in the recent years, and the responsibility of provision of the land needs to be taken by the Government. Once land is made available the private sector can then be responsible for developing housing. But the lack of support is creating ripples in housing delivery (Sivam & Karuppannan, 2002; Sengupta, 2005).

Regulatory concerns is another area that transcends to all aspects of housing. India is considered very poor in the area of handling construction permits. She ranked 177 out of 183 countries in this regard (LaSalle, 2012). This can give an idea of the challenges faced by private developers in India. For every step of involvement they face hindrances, starting from land acquisition to building permits to occupancy. These delays in regulations and permits cost money which in turn affects affordability. Apart from money, the tediousness of the whole process is a key aspect in deterring involvement. Lack of clarity, absence of strong urban planning and archaic laws are other aspects of this issue.

The other obvious reason is profit margins of these private developers. Private developers make higher profits in high end projects and thus prefer those
to affordable ones. If construction and land costs can be controlled these can add to profits of the developers. Another reason for low involvement is also the mindset of people. This is the hardest to change. It will take years before this aspect can be tackled. Limited options for financing mechanisms for private sector is yet another reason for their reluctance. Thus there are a myriad of reasons for lack of involvement by private developers in this sector.

Studies show that of all these concerns, one of the biggest concerns is land (Sivam, 2002; Buckley & Kalarickal, 2005; Wadhwa, 2009; Nahiduzzaman, 2012). Tackling the issue of land can thus be one method to incentivize private developers towards affordable housing.

2.4 Overview of land related concerns

Access to land and access to housing are interlinked in most developing nations, and this is the case in India too. Rapid urbanization and population migration have caused tremendous pressure on urban land (KPMG, 2010; LaSalle, 2012). Land availability, land acquisition, land approvals, land costs and land use restrictions form the core of the issue of land concern among private developers. Lack of land with infrastructure and basic services, land prices, and land control and ownership are constraints working against expanded productivity by the private sector (Billand, 1993; MHUPA, 2013).

The cost of land forms the most expensive component of affordable housing costs (Wadhwa, 2009; KPMG, 2012). Lowering land costs can go a long
way in enticing developers to work within the affordable segment, and thus help increase the pool of affordable housing. Poor land regulations in India have caused rising land prices. Archaic rules still apply in several parts of the country, and the inability of land availability to react to market demands has caused prices to escalate. Land available for residential purposes is limited and takes longer to become available (KPMG, 2012). High land prices drive up housing costs and this works against the ultimate aim of affordable housing for all. Thus the first hurdle to be surpassed is the availability of land at reasonable prices. At this juncture the Government can play a significant role, in serving as the facilitator.

Controlling land supply can directly control the supply of housing, but excessive land control can also create artificial land shortage (Nallathiga, 2005; Arnott, 2012; MHUPA, 2013). Stringent laws and policies when not implemented in the correct manner can provide results to the contrary. Strict land regulations at the national, state and local levels many a time cause more harm than good. Excessive land regulations and policies also bring in the concept of corruption, since multiple stakeholders are involved. Transaction costs increase in such a scenario which is the case with India. In India land use from one form to the other – land recycling, is a lengthy process. Availability of land for residential purposes (for affordable housing in particular) takes long periods of time (MUHPA, 2013; RICS, 2010). Quicker turnover of land from one use to another is essential.

There are also large tracts of non-marketable land in India that are governed and monitored by the Government. Portions of this land which are not in use today
are still not readily made available for housing. Such obsolete parcels of land form an area of potential that can be looked into (Wadhwa, 2009; RICS, 2010).

When land is not readily available at the right prices to the urban poor they are forced to step outside of the formal sector to gain access to land. This creates the informal market, which defeats the whole concept of formal affordable housing (Sivam, 2002). This brings in the need for better planning at the national and state level. Planning should incorporate future needs and growth patterns of the cities, to be able to support the rapid growth rates. Even when land is made available land acquisition is a tedious process on its own. The most common reasons for this are as shown in Figure 2.3

![Diagram showing land acquisition concerns]

**Figure 2.3 Land acquisition concerns**

Source: A Perspective from India On Affordable Housing - The 5th Global Housing Finance Conference, 2012
Once land is obtained good control of land and land policies directly imply good control over housing supply. Thus policies regarding land and regulatory concerns are a top priority in India (LaSalle, 2012; MHUPA, 2013). Once land is got, expedient land development is a direct concern for private developers. India faces lengthy approval processes. Multiple stages of approval requirements and inefficiency of local urban bodies results in lengthening the entire process.

<table>
<thead>
<tr>
<th>Months</th>
<th>Approval processes for land acquisition till construction commencement (24 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion of land use</td>
<td>8---12</td>
</tr>
<tr>
<td>Project letter of intent/IOD</td>
<td>4---6</td>
</tr>
<tr>
<td>Precon approvals from State level bodies</td>
<td>6---8</td>
</tr>
<tr>
<td>Precon approvals from central bodies</td>
<td>5---7</td>
</tr>
<tr>
<td>Approvals for construction plan sanctions</td>
<td>5---7</td>
</tr>
<tr>
<td>Approvals for construction commencement</td>
<td>2-3</td>
</tr>
<tr>
<td>Construction period</td>
<td>24-------30</td>
</tr>
<tr>
<td>Inspection &amp; approvals for building completion</td>
<td>2-3</td>
</tr>
<tr>
<td>Occupancy certificate receipt</td>
<td>2-3</td>
</tr>
</tbody>
</table>
these approvals on an average is over two years (LaSalle 2012). Figure 2.4 gives an idea of the time frame required on an average for affordable housing projects. This directly affects real estate development and also influences the mindset of private developers who want to be involved in the affordable housing sector.

Land use restriction is yet another concern among developers. Land regulations are essential but very stringent land use policies can deter involvement by private sector. Tight FSI (floor space index), strict zoning, unreasonable codes etc. affect housing supply directly (Buckley & Karickal, 2005). Optimal utilization of land is dependant again on good planning which directly affect aspects like land use, FAR (floor area ratio) etc. Thus there is a need for focus on land and land related concerns beginning with land availability to land acquisition (12th 5 year plan, Government of India).

2.5 Role of housing policies

Policies lay the groundwork for the whole setting and thus without knowledge of housing policy, the knowledge of affordable housing supply is incomplete. But despite the importance of housing policies, there is still very little empirical work analyzing housing policy in developing countries. Housing policy of developed countries is better documented and analyzed (Arnott, 2008). Understanding policy measures is key to solving the issue of affordable housing supply in Urban India (Buckley & Karickal, 2005). One of the pitfalls of housing policies in India has been their failure to measure true housing demand. Knowing the actual need for housing (both informal and formal) can lend itself to new
approaches in policy (Tiwari & Parikh, 1998; Sivam 2002). Another drawback in the housing policies of developing nations is that policy formation isolates housing from building industry and economic markets. Industry needs need to be addressed and planning should be able to address both short run and long run objectives (Sivam & Karuppannan, 2002; Jarvis, 2008).

Informal settlements should be included in policy making because these are an important part of the housing stock. Housing policies fail to take into consideration this economy due to lack of data and lack of actual existing numbers. This has been the case for years (Sundaram & Ahuja, 1984; Dowall et al. 1996; Arnott 2008). Policy changes should include this sector of the economy too, to achieve true housing affordability. Policies should also have a multifaceted approach to the problem of affordable housing by looking into problem areas faced by developers. Key among these is to address the lack of adequate infrastructure, lack of sufficient FSI and lack of planning (KPMG, 2010). Planning for these concerns should be done in a way to sustain future needs too.

Housing is a matter of the State in India, and the housing policies of Mumbai can be found in the Maharashtra State Housing Policy document of 2007. That is the latest set of policies as they exist in the state.

2.6 The issue of affordable housing in Mumbai

Literature reveals the need to tackle the issue of the affordable housing in Mumbai, Maharashtra. Being the state having the second largest shortage of affordable housing in India, Maharashtra draws attention to itself. The various
concerns previously addressed at the national level also apply in this case. The role of the private and public sectors in housing, factors affecting private sector involvement and the importance of policies transcend to the state level. Focusing on the policy aspects which play a prominent role in the involvement by private developers, it is important to understand the situation in Mumbai in specific.

Again land is of importance here. Availability of land is of prime importance in this growing metropolis, and its impact on housing is multifold. Mumbai, the commercial capital of the nation, faces acute land shortage. It is important to understand how the various aspects of land and their regulations are in play here.

2.6.1 Regulatory Institutions

Land use and Development control functions at various levels, each of which impacts housing. The BMC (Bombay Municipal Corporation), now called the MCGM (Municipal Corporation of Greater Mumbai), creates the land use planning system in Mumbai, which is a 20-year development plan. The body deals with creation of the plan while implementation is done by various departments within this organization. Concerned departments within this body grant building approvals and permissions. The MMRDA (Mumbai Metropolitan Regional Development Authority) is the regional planning body devising 10-year plans for region specific issues. This is also the governing body which deals with housing plans for the city. Thus these institutions comprise the framework that determines the allocation of land for various purposes in Mumbai.
2.6.2 Development Control Regulations (DCR)

Every development faces regulations and constraints in various levels and pertaining to several areas. Land use zone regulations deal with the type of building (based on its use) that can be built in the given area while density regulations regulate development density. These are usually measured in the form of Floor Space Index (FSI) or the density of tenements per unit area. Density regulations have proved to have a direct impact on housing markets and land operation (Nallathiga, 2005). Building byelaws are another form of regulations that govern aspects like building heights, building height to width ratio, ground coverage etc. These various approvals and byelaws make the process of attaining building permissions and checking compliance with these multiple regulations a tedious process.

Figure 2.5 *Forms of development control regulations, Mumbai*

Source: Regulatory impacts on Land and Housing Markets in Mumbai – Ramakrishna Nallathiga, 2005
2.6.3 Other Government Interventions

Besides these density and zonal regulations, other government interventions in the form of various acts also affect land and housing. Two main acts that influence land availability and prices are – ULCA (Urban Land Ceiling Act) and RCA (Rent Control Act) (Nallathiga, 2005; Rao, 2006; KPMG, 2010). These are also the two main acts prevalent in affecting the housing supply in Mumbai. The ULCA, introduced in 1976 as a central legislation, aimed primarily at curbing land price increase and promoting low-cost housing by maintaining large tracks of public land. In simple words the act banned private developments on large tracks of available land (beyond a basic size) to make it available for larger social needs. But the basic aims of the act remain unmet, and have resulted in them having a severe impact on urban land development. Maharashtra repealed the act in 2007, yet till date there is some confusion in implementing this well. The RCA of 1947 was an attempt at imposing a maximum on rent in particular areas in the housing market, aiming to provide monetary relief to tenants. The act established a maximum rent on a property for as long as the lease prevailed. The intention of the act though positive, faced heavy criticism for certain aspects, as it failed to account for changing times and city growth and needs. The act made it difficult to acquire lands for development purposes, made it difficult to vacant tenants once rental began, provided no incentives to tenants to maintain properties well or to renovate, created monopoly in land buying etc. The act directly affects developers even today.
2.6.4 Need for reforms

Many of these land regulations within the regulatory framework, intended by the public sector to form a good backing for housing development, have failed to achieve what was intended, in some case causing effects contrary to what they aimed to achieve. The need for policy reforms in Mumbai has been recognized over the years (Patel, 2005; MSHP, 2007). Rationalizing development control regulations and streamlining the approval process have been identified as important for growth in housing in Urban Mumbai (MSHP, 2007). These aspects directly affect private developers who are involved in affordable housing. The starting point to dealing with the issue could be identifying the obstacles, and then finding a solution to overcome them (Patel, 2005).

2.7 Summary

This literature review summarizes the various aspects of affordable housing in Urban India, in Mumbai in particular. The chapter helps form the setting of the study by laying the basis for the research. The overview of the private and publics sector involvement reveals the primary role played by private developers in affordable housing, and points towards focusing on this sector as a possible solution to the problem. The finding that it is beneficial to have the public sector acting as the enabler, through its regulatory and support framework, provides a further direction to the study. Assessing reasons for reluctance by private sector to be involved in affordable housing, the key aspects of land and
land regulatory concerns stand out. The role of housing policies and their failure to achieve what they set out to is also brought to light.

Understanding the need for good policies from the government front and tying it into land concerns of private developers thus seems one approach towards enticing private developers to be more involved in affordable housing. The other approach (which was adopted) was a study of common practices by developers in the field. Thus the combined element of land, policies and best practices can contribute towards increasing the supply of affordable housing in Urban India.
CHAPTER 3. METHODOLOGY

The chapter introduces the research framework and methodology adopted to study the affordable housing research question at hand. The goal of the study was to identify best practices in the area of land concerns of private developers, and the methodology adopted followed a logical pattern which lead to the identification of such best practices. The chapter explains the approach adopted for data collection methods and data analysis techniques. It then concludes with a discussion of analyzing data and the process of drawing meaningful conclusions.

3.1 Framework of study

Housing is a complex bundle of multiple factors, the study of which needs to be done carefully weighing the interplay of all these factors. Thus the inherent nature of the study of affordable housing lent itself to a qualitative study. Qualitative studies are most often used to research questions of “why and how”. They add an additional component to the study by providing the views of the local (target) population and thus adding the peoples’ angle to the research (Mack et al., 2005). Translating the “why” and “how” aspects to the given study, the researcher seeks to answer the questions of why private developers are
reluctant to get more involved in affordable housing and how they can be enticed to do so. This is achieved by suggesting how private developers can best work within the existing Governmental framework.

Since the research topic dealt with the involvement of private developers in housing, understanding the concerns of these developers was a necessity. Topics of study involving people usually tend to be social, flexible and qualitative as opposed to a heavily structured and rigid quantitative study. Thus the study adopted a qualitative research method to explore best land practices in view of increasing affordable housing supply in urban India, in particular Mumbai. The primary intent was to understand concerns of private developers. But the field of affordable housing has multiple stakeholders, and not private developers alone. Thus the study also included inputs from other stakeholders like planners and land developers.

Qualitative research is commonly conducted through five different approaches. These are narrative, phenomenology, grounded theory, ethnography and case study (Merriam, 2002). Though these different approaches are similar in their exploratory and inductive nature, they differ in their specifics. The grounded theory of qualitative methods described in the following section was chosen as the most suitable approach for this research. Establishing the statement of purpose is an integral part of research framework. Using the “boiler plate” template devised by John Creswell, the intent of the study is represented in the following statement.
“The purpose of this grounded theory research is to establish the framework for best practices for procuring land in affordable housing, by private developers”.

The other main component needed to establishing the research framework is to identify the research methods involved in data collection, analysis and interpretation (Creswell, 2009). Evaluating the various methods of data collection in the context of the study, interviews were chosen as the most suitable option. The process of analysis and interpretation of data occurred simultaneously with data collection, as embedded in the use of grounded theory.

3.2 Methodology

“A grounded theory is one that is inductively derived from the study of the phenomenon it represents”. Corbin & Strauss, 2008

The grounded theory is a popular yet unique method of qualitative research. Unlike other methods where researchers start with a theory and verify it, the grounded theory approach takes a route of being more exploratory. The essence behind this method is that a theory is developed and takes shape as a consequence of the data collected (Leedy & Ormrod, 2005). Creswell defines grounded theory as one whose purpose is to “move beyond description” and where the researcher can “generate” and “discover” a theory. Discovering a theory as opposed to simply verifying one forms the main purpose of the use of this method. The process is inductive rather than deductive. Grounded theory
can be applied to a myriad of disciplines such as economics, law, medicine, psychology, sociology etc. (Gibbs, 2010), and is hence chosen as a suitable approach for this housing study.

An inherent part of grounded theory is that there is no definitive structured methodology for the conduct of the research. Strauss and Glaser, the authors of the first book presenting the Grounded Theory approach, endorse this. The data collection procedures are not predetermined, what is structured is the process of examination of data. Since the formation of a theory from the data gathered is the core of the method, the grounded theory necessitates simultaneous data collection and analysis. This forms the essence of the grounded theory. Simply put, when adopting the grounded theory, the data gathered dictates the theory and the process, and not the other way around. Though often criticized for lack of a definitive structure, this approach is often used in qualitative research where the researcher begins with a hope of discovering something new, without beginning with a theory in mind.

The inherent flexibility of the method can be used to ones advantage. This worked well with the study at hand. While the researcher’s initial idea was to study what policy changes can entice developers to be more involved in affordable housing, the study took a different turn as it progressed. The researcher identified that success in the housing field can be achieved by being able to work well within the existing framework, rather than aspiring for new policies and changes. During the course of the study, it was established that policy creation and implementation are two different aspects, and an attempt to
make policy suggestions for affordable housing would be impractical without the knowledge of implementation.

The process adopted for the study was thus in line with the grounded theory and was highly explorative in nature. Literature review established that private developers have multiple concerns with respect to affordable housing. But the literature provided no guidance on what direction to proceed in and what areas to focus upon. Thus the researcher established the need to conduct 2 separate rounds of study. The initial study began with identifying the core concerns of private developers who are involved with affordable housing, followed by narrowing down concerns to one core area (land). The next logical follow up was to then understand how private developers can work within the existing governmental framework to tackle their concerns in the best possible manner. This gave way to the concept of developing a framework for best practices in the field of affordable housing with respect to land, and is the core of this thesis.

3.3 Collection of data

The use of the grounded theory does not dictate a particular data collection technique, but calls for multiple stages and levels of data collection and establishing interrelationships between the data collected (Creswell, 2009). The researcher has the freedom to determine his data collection technique. The innate nature of qualitative studies generally calls for data collection from varied sources and at multiple stages, and this aspect was applied in the study process. Data collected for the study included both primary and secondary data sources.
The literature study (the previous chapter of the thesis) formed the secondary source of information for the study and helped form the basis for the study. Background about the affordable housing scenario in India, previous studies, professional reports, government reports and published industry sources form its core. The first round of study helped confirm land concern as a key deterrent preventing private developers from being involved in affordable housing. The focus was then to understand how the existing regulatory framework and the Government address concerns of private developers. Literature review was key at this stage. The State Housing policy as it relates to various aspects of the affordable housing sector was analyzed.

An important aspect of the literature data collection was to explore the concerns of private developers in affordable housing in India. The published information which was gathered about developers’ concerns was not exhaustive or ample; it just provided a context to work within. Thus the literature review helped provide a direction to the methodology for the study. But housing being a social issue, (and since social issues are not very well documented in India), there was a need to further confirm the literature findings which guided the development of data collection.

The researcher chose interviews as the solo method of data collection. This method of data collection was chosen based upon the inherent nature of the study, and to best address the peoples aspect of it. Interviews were deemed most appropriate in this case because the freedom of responses in interviews is
more than other forms of data collection. The data collection was centered on two sets of interviews. These were –

1. Interviews – Round 1
   Interviews of multiple stakeholders in affordable housing
   To identify the various concerns of private developers involved in affordable housing

2. Interviews – Round 2
   Interviews of private developers involved in affordable housing
   To address the key concerns identified, and to identify how best to approach these concerns and tackle them in the existing framework

The intent of having the first level of gathering data, regarding concerns of private developers, was to add reliability and validity to the findings from the literature study. This also helped ensure that any concerns (other than those found in literature) are identified. The next round of interviews addressed the crux of the study revolving around land related concerns. The findings from the data collected, helped in narrowing down one key area of concern of developers (land), and to identify practical solutions to work within the existing regulatory framework to help address the identified concerns.

Interviews are a good way of conducting research because they help give a broader picture and often also include ideas and areas not thought of by the researcher. They also help ensure that the researcher isn’t limiting the findings in any way. For the first round of research, semi-structured and open-ended interviews were conducted with land acquirers, urban planners and private
developers to understand their involvement in affordable housing and reasons for their reluctance to get more involved in affordable housing. To validate the research better it was important to collect data from multiple stakeholders. It was also important to collect a picture of both sides of the case – interviewing developers who are involved in affordable housing as well as those who are not. For the second round of interviews, more structured and detailed interview questions were asked regarding specifics of land concerns of private developers. It was considered impractical to gather opinions from land developers, or planners at this stage, as the research focused specifically about practices adopted by developers. Thus it was narrowed down to developers alone.

For conducting the first round of interviews the Hurworth model employing a funnel approach was used. This funnel approach begins with broad topic questions, progressively narrowing them to finally focus on key areas. The funnel approach helps to ensure that the researcher does not overlook any areas, which is the intent of round 1 of interviews. It also helps to avoid any bias the researcher has in mind.

The questionnaire for round 1 of interviews was segregated into three levels

1. Questions at the opening level
   General questions about involvement of company in affordable housing

2. Transitional questions
   Identify broadly the various areas of concern

3. Key focus questions
   Talk about land in particular
The first round of interviews were conducted in person in Mumbai. Face to face interactions helped set the stage for the interviews. In the case of planners, the interview questions were only transitional and key, since the general questions were not applicable. The intent with these interviews were to identify concerns of the developers, and to confirm the literature findings that land is a key concern. And the focus questions helped investigate details about land concerns, and regulatory aspects governing them. The exact interview questions can be found in Appendix A.

On analyzing responses from the first round of interviews, it was confirmed that land and related concerns are a huge priority to private developers (the details of which can be found in the following Results chapter of the thesis). The three striking elements of concern were established as land availability, land costs and land approval processes. It was also found that it is not the lack of policies or regulatory aspects which cause for heavy land related concerns, but rather complicated and unsure practices which cause worry. Thus the need to identify best practices in the field of land for affordable housing was established.

An intermediate level of data collection was then conducted, again based on secondary sources of information. The finding that the necessity today is to be able to successfully survive in the existing framework, called for in depth knowledge of the existing Housing Policy and how it affects the concerns of developers (especially those established through the above mentioned interviews). This understanding helped form the second round of interviews.
The second round of interviews were then conducted to identify the best approaches to deal with land related concerns in the affordable housing sector. Keeping in mind practical time limitations, and inability of the researcher to travel again to India, the second round of interviews were via telephone and skype. These interviews were divided into two parts – two separate questionnaires. The aspects of land availability and land costs were addressed in one set of questions, and the aspect of lengthy and complicated approval processes were dealt with in another set of questions. The need to separate the two were based on the differences in the regulatory Governmental aspects which addressed these concerns. Thus the two questionnaires which constituted the second round of interviews were

1. Questionnaire 1 – about land availability & costs
   Evaluate how the existing State Housing Policy addresses the above

2. Questionnaire 2 – about land approval processes
   Establish a list of approvals and their requirements

Thus the process of data collection was multi leveled. Using a combination of interviews and literature support, a framework for collection of data was established to understand concerns of private developers involved with affordable housing. The process can be summarized by the following figure (Figure 3.1), and the table (Table 3.1) below describes both the interviews.
Table 3.1

Details of the two rounds of interviews

<table>
<thead>
<tr>
<th></th>
<th>Interviews – Round 1</th>
<th>Interviews – Round 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Method</strong></td>
<td>Conducted face to face, in Mumbai</td>
<td>Conducted via skype or telephone calls</td>
</tr>
<tr>
<td><strong>Interviewees</strong></td>
<td>Private developers, urban planners, land acquirers</td>
<td>Only private developers</td>
</tr>
<tr>
<td><strong>Intent</strong></td>
<td>To understand various concerns when dealing with affordable housing</td>
<td>To understand how best to approach these concerns in the existing regulatory framework</td>
</tr>
<tr>
<td><strong>Levels of interviews</strong></td>
<td>One level</td>
<td>Two levels (2 separate questionnaires)</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>Funnel approach – general to transitional to focus questions</td>
<td>Detailed and specific interviews – How Housing policy addresses land availability &amp; costs, and about the land approval process</td>
</tr>
</tbody>
</table>

Figure 3.1 Process of data collection
3.4 **Sampling design**

Sampling design and execution requires careful consideration of the goals of the research and resources available to carry out the research. The sampling method chosen should bridge the connection between the goals of the research with practical considerations (Bickman & Rog, 1998). This research adopted a combination of convenience sampling, accompanied by snowball sampling.

Convenience sampling was viewed as a viable option keeping in mind the background of the study and practical considerations. Having worked in the Indian setting before, and understanding the Indian mindset, played a significant role in picking this method of sampling design. Though often criticized as not being representative enough, the main reason for choosing the convenience sampling method is that this would work well in India. The qualitative nature of the research required inputs from genuine experienced professionals willing to share their experiences. The convenience sampling included a pool of developers, land acquirers and urban planners who were willing to give interviews and speak with the researcher. A majority of these people were approached through social networking and contact creation. To set a common ground for approaching respondents, two criteria were used.

1. minimum of 10 years experience working with affordable housing
2. the companies these professionals belonged to, needed to be a part of CREDAI Maharashtra.
Snowball sampling was also used in the study. Snowball sampling, also called chain referral sampling, is used when contacts (whom the researcher has already approached) refer the researcher to other people through their social networks (Mark et al., 2005). Getting introduction through contacts can go a long way in helping one get useful responses and feedback, and also increase the sample size. This proved to be the case in this study as well. This proved especially helpful in picking respondents for round two of interviews (since these were more detailed, and demanded expertise in the field of housing).

Theoretical sampling was also embedded in the sampling design process. Theoretical sampling provides for a case where data is not one-dimensional and both views are studied. The sample population for interviews included developers involved in affordable housing as well as those who are not. It also included professionals other than developers in order to get broader opinions. Getting various perspectives makes for good research.

Determining sampling size forms the other component of sampling design. The flexibility of grounded theory research also translates down to the sample size. Due to the inherent nature of grounded theory research there is no strict criteria or minimum as relates to sampling size. Each case is different and the researcher is given the task of determining an appropriate size. That said, Cresswell recommends that in the case of interviews, a sample size of 6 to 30 is reasonable. In the context of the present research, a total of 9 respondents were interviewed in all. The first round of interviews included 7 professionals, while the second round had 4 interviewees (2 from round one).
3.5 Analysis of data

Analysis of data in qualitative studies is the most challenging part of the process. Interviews are especially difficult to analyze since there is always a wide range of data of various themes. There is no one method for analysis of such data. Data analysis can vary depending upon the nature of study and the variety of responses. Though there is no fixed method of qualitative data analysis, important steps include data reduction, data display and drawing conclusions.

Figure 3.2 Data analysis in qualitative studies
Following the above model of data analysis as proposed by John W Creswell in Research Design, the data analysis process used in the present study can be defined in a more or less similar manner (Figure 3.2). The above steps for data analysis process were followed for both rounds of interviews. Coding of all data was done by hand, manually. On completing the interviews the first step was to transcribe them. The transcribed interviews were then summarized via a table compilation (described in the following chapter). The responses were then analyzed, sorted and organized into sections on their similarities and themes, and this reduced data was further represented by tables and figures. Then interrelationships of the various components of research were analyzed to carry out the study. The key feature of grounded theory – simultaneous data collection and analysis was followed all through the process.

Though the researcher expected challenges in the analysis process of identifying key areas of concerns, the first round of interviews gave fairly obvious responses and key areas of concerns of developers were readily identifiable. Anticipating the challenge of data analysis, the interview questions were framed keeping in mind key themes and concepts. Clustering of responses after the first round of interviews, helped narrow down and condense the data to specific key concerns of developers. The overall outcome of the interviews also helped guide the path the study should take.

The next round of interviews were much harder to analyze and condense. The questions were very specific, but answers were personalized, and sometimes vague. This made it harder to condense and summarize. The
researcher realized, a definitive “one” set of correct answers wouldn't suffice. As the data was collected, analysis was also happening alongside, which helped shape the manner of listing findings. Thus the process of data analysis was repeated twice—once the first round of interviews, and the next time after the second round of interviews (both parts). Once all the data was collected and analyzed, the researcher connected the findings from the second round to the context of the results from the first round of interviews. This established connection to the research question.

3.6 Summary

This chapter summarizes the process of conducting the research in a manner that provides the best possible results. The chapter details out the researchers framework of study, methodology, data collection techniques, sampling design and data analysis techniques. Considering the tricky nature of the topic, the researcher had to be prepared to follow the course that the study led him on. The aspect of adding validity and reliability to the literature findings about concerns of developers, was dealt with by conducting the first round of interviews. The criteria established for selection of interviewees adds credibility to findings. Overall the methodology adopted the grounded theory approach, in the context of affordable housing in Urban India – Mumbai.
CHAPTER 4. RESULTS AND FINDINGS

As described in the previous chapter, all data collection was carried out through interviews. This chapter presents an overview of the interviews that were conducted and the results they yielded. The study explored two different aspects—one about reasons for reluctance to be involved in affordable housing, and the other about the existing framework and regulatory support provided by the Government for affordable housing. The results of the study are hence presented in two main parts, with a third connecting element, and finally concluding with a summary.

4.1 Interviews – Round 1

The focus of the first round of interviews was to identify key concerns of developers who deal with affordable housing in Mumbai, helping identify reasons for reluctance to be heavily involved in affordable housing. All the interviewees were asked a variety of questions, and the questions framed were open ended. This paved the way to a lot of good discussions, without restricting responses. The summary of results of the interviews are displayed in the following subsection.
4.1.1 Round 1 – Data

**Table 4.1**

*Summary of Interviews- Round 1*

<table>
<thead>
<tr>
<th>#</th>
<th>Challenge faced?</th>
<th>Top 5 concerns</th>
<th>Other concerns</th>
<th>Land &amp; AH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>Land availability, land costs, infrastructure &amp; support, approval process, profitability</td>
<td>Importance of serviced land, approval process driving up costs, construction technology, financing</td>
<td>Private lands – high costs, compensating PAP, JV model can be more popular, conduct land study, plan for accessibility</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
<td>Land availability, approvals &amp; sanctions, regulatory processes, infrastructure, convincing tenants for redevelopment</td>
<td>(the previous list comprises all major concerns)</td>
<td>Land costs are most important, 80% of total costs in land, clear marketable approved lands</td>
</tr>
<tr>
<td>3</td>
<td>Yes</td>
<td>Govt. regulations &amp; policies, governance at approving levels- corruption, provision of occupancy certificate, land transaction registration, less vigilance from the Government</td>
<td>Lack of planning for generating housing, not thinking ahead, limited financing option for Affordable housing (both developer, buyer)</td>
<td>Land availability, land costs, land policies, serviced lands,</td>
</tr>
<tr>
<td>4</td>
<td>Yes, but for all housing, not just AH</td>
<td>Land, financing, location of land, lack of proper implementation of rules and policies</td>
<td>-</td>
<td>Land costs, adequate financing for land, serviced lands, redevelopment land is available but not easily accessible</td>
</tr>
<tr>
<td>5</td>
<td>Yes</td>
<td>Approval process - multiple levels, expectation of customers, cost + profitability, availability of land (location &amp; costs), “timely” processes</td>
<td>Expectation of customers is less studied</td>
<td>Land availability is foremost, outside city options are becoming popular, land titles – very lengthy process</td>
</tr>
<tr>
<td>6</td>
<td>Don’t do AH</td>
<td>Government approval process, corruption, less profits &amp; more troubles</td>
<td>No comments – do not do affordable housing, only high end housing</td>
<td>Not viable to do such housing in Mumbai, regular housing fetches more profits,</td>
</tr>
<tr>
<td>7</td>
<td>Yes</td>
<td>Financial feasibility, infrastructure, finding land, approval processes, very tedious &amp; not profitable</td>
<td>Cost of land, local bodies and their governance</td>
<td>Finding land, land with infrastructure, location of such land, high costs, high upfront costs</td>
</tr>
</tbody>
</table>

The above table contains the responses of all 7 interviewees. The first round of interviews also included questions about policies, and suggestions of policies by
the developers. These are not included in the summary here, as they do not directly relate to the final research question.

4.1.2 Round 1 – Analysis of data

Coding and condensing of these interviews were a challenging task, as all the coding was carried out manually. The first step in the data analysis was to summarize all the transcribed interviews as above. This helped provide an overview of all the data received while at the same time helped organize the data into categories. The first take away from the summary was that everyone involved in developing affordable housing did face challenges in doing so.

Once organized in the above format, a list of all concerns of developers was made, to ensure a holistic view of the concerns of developers was attained. This included a wide range of concerns of developers (a lot of these were the ones established via literature review, but there were others as well) –

1. Land availability
2. Land costs
3. Infrastructure and support
4. Lengthy and complicated approval processes
5. Profitability
6. Convincing tenants for redevelopment
7. High upfront costs for redevelopment
8. Complicated Government regulations and policies & lack of clarity
9. Corruption at approving levels of the Government
10. Less vigilance by the Government
11. Limited financing options (both developers & tenants)
12. Lack of proper implementation of rules and policies
13. Expectation of customers
14. Lack of good planning
15. Inadequate construction technology

The striking aspect was that 100% respondents indicated land as one of their top 5 concerns. The questions regarding land concerns yielded detailed responses about land related concerns of developers. Combining these land related concerns based on their commonalities and themes, gave the following three main areas of concerns of developers with respect to land—Land availability, Land costs & Land approval processes. The various concerns under each of these aspects are presented in the following figures:

Figure 4.1 Regulatory aspects & Approval processes – Issues & Concerns
Figure 4.2 Land Availability – Issues & Concerns

Figure 4.3 Land Costs – Issues & Concerns
4.1.3 Round 1 – Findings

The results from the first round of interviews gave way to some expected results and some unexpected ones. The fact that developers face a wide array of challenges when dealing with affordable housing was well established by all interviewees. This was in tandem with literature findings. The list of concerns of developers were also in tandem with literature findings, with land issues being one of the biggest concerns of developers. The main aspect which came as a surprise was the topic of policies and regulations. While the initial aim of this entire thesis was to identify what policy changes can entice developers to be more involved in affordable housing, the findings that it is not the generation of policies which is an issue, rather their implementation, gave a new direction to the study in itself. There was much consensus about the aspect that ample governance and regulations exist to help affordable housing. Wish list for policy changes and changes in governance can be long, but that is not a practical approach to the study. Policy creation and implementation are two different aspects, and the practical happenings in the industry yet another aspect. What is needed is for one to know where to go, and what to do, in order to be successful in the field of affordable housing. Thus the first round of interviews established that the way forward would be to understand the existing framework, and then establish through the next round of interviews, how developers work in relation to their concerns. The three main focus areas of the study were established as land availability, land costs and land approval processes.
4.2 State Housing Policy in relation to the concerns of developers

An intermediate round of literature study and review was key to proceeding forward with the study. Following data analysis of the first round of interviews, the researcher evaluated the housing policy of the state, and the relationship it has with the established concerns of the developers. Since the State Housing Policy of Maharashtra is a single document, this simplified the process of literature collection and review. An in-depth study of the document, and trying to establish a relationship between concerns found helped arrive at the following (Figure 4.4).

![Diagram showing the study of State Housing Policy]

The study of the Housing Policy however revealed that the policy only addresses the land availability and cost aspects, and not the approval processes. Thus there was a need to find out more about the approval process through the next round interviews.
4.3 Interviews – Round 2

The second round of interviews were significantly different from the first round, because of the detailed and specific nature of questions. The focus of the interviews was to find answers to the key aspects identified during the study of the State Housing Policy (as elaborated above). The interviews required respondents to answers to some very specific questions, and the summary of all the responses is attached in Table 4.2. Every one of the 5 interviews conducted gave different views and touched upon some very different aspects of the industry and its workings. The take away from the interviews was to ultimately identify how developers tackled their various concerns, while working in the established governmental framework. The interviews were divided into two parts. While the first part (A) focused on the Housing policy with respect to land availability and costs, the second part (B) was about the land approval process.

The intent with finding whether the objectives of the Policy have been achieved or not (as perceived by developers), was to find gaps in the system, and to see if people are even aware of the Policy objectives and the strategies offered by the government. Of the 5 interviews conducted, only 4 responses are summarized in the table below. The finding from the fifth developer was that, these governmental policies do not make any sense in the real world (theory is different from practice). What is needed is to be street smart, and know to work with the right people on the right projects.
4.3.1 Round 2A – Data & Analysis

The following table is a summary of the findings relating to the objectives of the Housing Policy. There was a lot more to the answers than just a yes or a no.

This table (Table 4.2) is a much simplified and condensed summary of responses, and also includes the overall findings by the researcher. The researcher’s conclusions from the interviews shall be explained in detailed in the following subsection.

Table 4.2

Summary of objectives of Housing Policy – Interviews 2(A)

<table>
<thead>
<tr>
<th>Objectives</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deregulate housing sector, encourage competition &amp; PPP</td>
<td>Yes</td>
<td>Yes, improvement is seen</td>
<td>Not achieved success yet</td>
<td>Yes, more private sector seen</td>
<td>Yes – private involvement is proof</td>
</tr>
<tr>
<td>Rationalize DCR (Development Control Regulations)</td>
<td>Yes – done for state</td>
<td>Yes – but impact not felt as much</td>
<td>Yes – but some DCR not achieved</td>
<td>No – it is complex even now</td>
<td>Yes – done, but still vague</td>
</tr>
<tr>
<td>Streamline approval processes</td>
<td>Not yet, there is hope</td>
<td>Not achieved</td>
<td>Not achieved</td>
<td>Not achieved</td>
<td>No – definitely not</td>
</tr>
<tr>
<td>Promote rental housing</td>
<td>Not sure, but definitely objective not achieved</td>
<td>Yes – attempt has been made</td>
<td>Yes for sure, but who benefits?</td>
<td>Yes attempts are made</td>
<td>Yes- attempts made, cant say achieved</td>
</tr>
<tr>
<td>Renewal &amp; redevelopment</td>
<td>Yes, definitely</td>
<td>Yes, fairly well achieved</td>
<td>Yes – various schemes</td>
<td>Yes</td>
<td>Yes – definitely achieved</td>
</tr>
<tr>
<td>Most beneficial objectives</td>
<td>Rationalization of DCR &amp; also redevp</td>
<td>Redevelop. Schemes – good for FSI</td>
<td>Cant decide, each has its own benefits</td>
<td>DCR (if only it can be achieved) &amp; redevp.</td>
<td>Redevelopment schemes, followed by rationalization of DCR</td>
</tr>
</tbody>
</table>
The following Table 4.3 summarizes findings, specific to the strategies as mentioned in the Housing Policy. The questions addressed the direct relevance and existence of these strategies in the practical market. There were also questions about the implications of these (for the developers) and their perspectives on different aspects of these.

Table 4.3

**Summary of Implementation of Strategies - Interviews 2(A)**

<table>
<thead>
<tr>
<th>Strategies</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide land in proximity of cities, towns &amp; rural areas</td>
<td>Yes – as a part of DCR improvement</td>
<td>Provisions exist – but not in reality</td>
<td>Yes, but it is hard to acquire such lands</td>
<td>Land made available, but no automatic provision</td>
<td>Yes in theory, not in practice</td>
</tr>
<tr>
<td>Inclusionary zoning provisions for LIG in layouts</td>
<td>Yes – as a part of DCR improvement</td>
<td>Yes</td>
<td>Yes – definitely</td>
<td>Yes – very much in practice</td>
<td>Yes – definitely</td>
</tr>
<tr>
<td>Higher FSI for LIG housing &amp; efficient land use</td>
<td>Yes – but the specifics can vary</td>
<td>Yes – definitely</td>
<td>Yes – but how it can be used varies</td>
<td>Yes – and definitely an incentive</td>
<td>Yes – and its proving helpful</td>
</tr>
<tr>
<td>DCR allocates land for public housing through PPP</td>
<td>Not really – not in practice, maybe in paper</td>
<td>Not sure about this</td>
<td>Don't know about this</td>
<td>PPP is not a very successful idea, not one success</td>
<td>Nobody knows details of this scheme</td>
</tr>
<tr>
<td>Encourage Special Township Policy (higher FSI provided)</td>
<td>Yes and no</td>
<td>Not sure about this</td>
<td>Don’t know about this</td>
<td>Yes – but not sure of the details</td>
<td>Yes – but it is less common</td>
</tr>
<tr>
<td>Land by Government for Affordable Housing</td>
<td>Not at all a reality</td>
<td>Not in practice</td>
<td>No comments – government is not a land provider</td>
<td>Land isn’t a problem – capital for land is</td>
<td>Not a reality government is not a provider</td>
</tr>
<tr>
<td>Rental Housing – RCA repealed?</td>
<td>No, not in practice</td>
<td>Yes, and replaced by Lease &amp; license rule</td>
<td>Yes in word, and not in practice</td>
<td>Yes, it is in progress</td>
<td>Yes it has been repealed</td>
</tr>
<tr>
<td><strong>RCA – is the developer benefited?</strong></td>
<td>No way (definitely not directly)</td>
<td>No, but rental market is.</td>
<td>Actual benefits go to landowners instead</td>
<td>Not directly benefited</td>
<td>Does not benefit developer directly</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------</td>
<td>--------------------------</td>
<td>------------------------------------------</td>
<td>----------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>STP – fiscal incentives?</strong></td>
<td>Present, though not enough</td>
<td>Unsure of the scheme</td>
<td>Enough to entice developers</td>
<td>Yes, but not enough for the scale of project</td>
<td>Yes – but the scale of the project is too large</td>
</tr>
<tr>
<td><strong>STP – automatic NA permission?</strong></td>
<td>Yes, it is a reality</td>
<td>Unsure of the scheme</td>
<td>Not sure, but not a reality</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Mandatory layout – In practice today?</strong></td>
<td>Yes, all schemes of any scale</td>
<td>Yes but unsure of details</td>
<td>Yes definitely</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Mandatory layout – Compliance</strong></td>
<td>No shortcuts, you need to comply</td>
<td>Yes &amp; no, depends on project</td>
<td>Nobody tries to get out of it</td>
<td>No easy way, you have to</td>
<td>No short cut</td>
</tr>
<tr>
<td><strong>Challenges in STP</strong></td>
<td>Finance &amp; land</td>
<td>Scale is too large.</td>
<td>Hard to find contiguous land</td>
<td>Size and scale</td>
<td>Scale of the venture-land requirement</td>
</tr>
<tr>
<td><strong>Challenges in JV</strong></td>
<td>Less land owners are interested</td>
<td>Not many come forward</td>
<td>No Govt. policies or PPP initiatives</td>
<td>Uncommon – so don’t know details</td>
<td>Few people come forward</td>
</tr>
<tr>
<td><strong>Challenges in redevelopment</strong></td>
<td>Getting current tenants on board</td>
<td>Getting approval from tenants</td>
<td>Feasibility</td>
<td>Housing when redevelopment is happening</td>
<td>Getting tenants on board</td>
</tr>
<tr>
<td><strong>Most helpful scheme</strong></td>
<td>Redevelopment</td>
<td>Cant say, its situational</td>
<td>All schemes are helpful</td>
<td>Schemes alone don’t help.</td>
<td>No definite answer – varies</td>
</tr>
<tr>
<td><strong>Best approach to procure land</strong></td>
<td>Private negotiation</td>
<td>Look outside city limits, within the city is hard</td>
<td>JV is good – no upfront land costs</td>
<td>Procuring land is not the worry – finding capital is</td>
<td>No definite answer – situational</td>
</tr>
</tbody>
</table>
As expected, the responses from the interviews varied heavily, when it came to questions relating to personal choices and methods of working. But the more definitive questions regarding specific strategies gave a fair idea of the practical scene in India.

4.3.2 Round 2A – Findings

The findings from the second round cannot be summarized as easily as the initial round. The topics dealt with had some severe grey areas, but the researcher attempts to make educated conclusions about how the Housing Policy affects developers. The objectives of the Housing Study which were studied include:

- deregulate housing sector and encourage competition and private-public partnerships
- rationalize DCR and streamline approval processed
- promote rental housing through amendments in RCA
- renewal and redevelopment.

Through the analysis of the data, the following conclusions are drawn:

1. While the housing policy has failed to meet all of its objectives, the process has definitely begun. The objectives of streamlining the approval process is the biggest concern. While rationalization of DCR at the state level seems to be achieved, the specifics of the same are still vague. An
issue of the objectives is also the scalability. While all of these help, the impact on the overall affordable housing market, is still limited.

2. The housing policy has definitely been successful in encouraging private involvement and deregulating the housing sector. But in the case of Public private partnerships, though this has been encouraged, projects from these haven’t emerged successfully yet. In fact there is no record of a single successful PPP affordable housing venture in Mumbai.

3. Rationalization of DCR has definitely been achieved over the past years. This helps in bringing more clarity to the process and also saves time. But the truth is that developers are still unsure of the exact rules. Most people believe that very few people - closely associated with the municipal body, alone have this knowledge. It is still complex. At the State level it has been achieved, but locally lots more needs to be done. The best way to tackle this is to work with local people, local experts with this knowledge, and work with architects who have worked with the municipality. They always have the best knowledge about DCR and regulations, which directly relate to the amount of time that is spent in getting approvals and complying with codes.

4. With respect to the repealing of the RCA, while developers are not directly benefited, it still makes more area available for affordable housing. There has definitely been an increase in the rental housing market. Landowners are directly benefited by this, and they now have less fear of
renting out their buildings. Also indirectly it can also help with redevelopment processes.

5. The objective of renewal and redevelopment has been well achieved by the State Housing Policy. Several schemes have been introduced to make available land for housing through these redevelopment schemes. They just don’t cater to land, but also to improving the quality of housing at large. This option seems to be very popular with developers, who find land via such schemes. Not just the availability of land, but the costs are also an important aspect of the process. The high upfront land costs of regular developments are not an issue in this case.

6. From the above list of objectives, the renewal and redevelopment schemes are the most helpful, followed by rationalization of DCR. The reasons for this are obvious, because of the multiple benefits they yield.

The interview responses regarding the strategies that deal with land availability, and various schemes by the Government, help conclude that:

1. From the above list of objectives, the renewal and redevelopment schemes are the most helpful, followed by rationalization of DCR. The reasons for this are obvious, because of the multiple benefits they yield.

2. Some developers also say that land can still be made available, but capital for land is a huge concern. Land costs in Mumbai are one of the highest in the world, and financing land is also a burden. Another point of view is that moving away from the core city limit is not always a bad idea. Cheaper
land is available, and there is adequate demand too. Planning for connectivity is key in this case, but this is definitely an option. Urban planning can go a long way in helping this. The already overburdened Mumbai city zone need not be over used even more.

3. Inclusionary zoning has been successfully incorporated into housing layouts, and mandatory requirement is a necessity too. This has been a government initiative to ensure provision for affordable housing and is definitely working. But provision of land is still missing. The incentive that ties into this is increase in FSI, and that is definitely incentive enough. These increased FSI can go a long way to ensuring more profits for the developers. But in the larger scheme of things, the land made available through increased FSI is still very small.

4. The STP is slowly gaining popularity and is definitely a possibility for increased FSI. The interviews recognized that even well established developers in the market are not fully aware of the schemes in place today. This is a key point to understand with respect to this study. The financial incentives offered through the scheme are adequate, but at the same time the scale of such ventures is much larger, as compared to the compensation. Availability of such large parcels of land is a concern for developers.

5. Interview respondents all unanimously said that the amendments to the RCA do not directly benefit the developer. Although the repeal of the RCA is extremely favorable to the rental housing market, and to affordable
housing at large, their direct implications on developers is not much. Landowners can continue to keep their land, while getting larger rents. But at the same time few of them are now willing to give their land up for newer housing. But the effect of this is only slowly being realized. It’s too soon to judge.

6. The DCR requirements of mandatory layout (20%) for affordable housing, is definitely in practice today. While a majority of developers stated that there is no provision to evade this, there was a hint of a finding that not always all developers comply with the specifics of the requirements established. There was consensus that the policy clearly spells out the area and type requirements. But overall, even this regulation is relatively new. And for the effects of this scheme to be felt more time is required.

7. Challenges with respect to STP, JV and redevelopment schemes were also established through the interviews. The prominent issue with respect to STP is identified as the scale of the venture. Large tracks of contiguous lands are required, and larger the scale, also implies more money and financing requirements. Joint ventures were classified as being less common, and having few people coming forward to being involved in affordable housing. Redevelopment measures though heavily common nowadays, a look at challenges revealed that most people are faced with the difficult of getting current tenants on board for the project.

8. When comparing schemes (programmes) that developers chose, there is no one definite answer to finding which the best way to go. Each
developer had a different take on which schemes he prefers and why. Special township schemes are meant for larger projects, joint venture are successful when you find a partner willing to enter into it, and redevelopment schemes are preferred when there is such an opportunity. However, the overall redevelopment schemes are gaining lots of popularity, because such opportunities are available more.

9. When looking at procuring land, one again there is no special ‘mantra’ that would work. Land negotiations are hard and costly, and the process of approvals is tiresome and long. Private negotiations work well for some people, while others believe that you need local agents who can work this out. Redevelopments are becoming a common way of procuring land too.

4.3.3 Round 2B – Data & Analysis

Since the aspect of land acquisition process wasn’t address by the State Housing Policy, the interviews had a second set of questions that dealt with the approval process. The following table (Table 4.4) was emailed to all interviewees, and they were questioned based on the information contained. The list of approvals and the order of approvals for land acquisition in Mumbai wasn’t found documented in one location, and this table was made based on multiple online sites. The interviewees were asked questions about whether this list (as in table) is complete, if the order of approvals is correct, timeline of approvals as well as their concerns when dealing with each of these steps. The exact questions for this round of interviews can be found in Appendix C.
This part of the study focused on the complicated, costly and time consuming aspect of getting approvals for land. The intent was to identify how developers deal with these issues in practice. Also, this was an attempt at formulating a list of approvals required for the land approval process in Mumbai. Table 5.4, list of approvals, will be followed by another table summarizing the results from the interviews.

Table 4.4

*Approval processes for land acquisition in Mumbai – Interviews Round 2(B)*

<table>
<thead>
<tr>
<th>Certificate required</th>
<th>Order of approval</th>
<th>Time Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership certificate/extract</td>
<td>1</td>
<td>15 days</td>
</tr>
<tr>
<td>Building layout approval</td>
<td>2</td>
<td>30 days</td>
</tr>
<tr>
<td>Site inspection</td>
<td>3</td>
<td>3-4 days</td>
</tr>
<tr>
<td>Intimation of disapproval</td>
<td>4</td>
<td>30-45 days</td>
</tr>
<tr>
<td>Non-Agricultural permission</td>
<td>5</td>
<td>3 months minimum</td>
</tr>
<tr>
<td>NOC’s (all )</td>
<td>6</td>
<td>(varies for each step) : 3-4 months in all</td>
</tr>
<tr>
<td>Environmental clearance</td>
<td>7</td>
<td>3 months</td>
</tr>
<tr>
<td>Commencement certificate</td>
<td>8</td>
<td>15-30 days</td>
</tr>
</tbody>
</table>

Similar to Part A questions (found in Appendix B), these questions, dealing with the above mentioned list of approvals, were also very specific. But the results they yielded were drastically different from the responses for the other questionnaire. No respondent was able to provide specific replies to the
questions asked. The researcher had to not just summarize the findings, but also interpret what the interviews implied through the interviews. The summary of responses for each question is explained in the following subsection.

4.3.4 Round 2B – Findings

Each question asked during the interview is listed here, followed by the researcher’s findings relating to each. To deal with the broad and vague nature of responses from the participants, the researcher not only summarizes findings, also includes key points discovered through the course of the interviews.

1. Is the above list complete? Are there any more approvals, apart from the above mentioned?

All of the respondents accepted that though the overview of the list is correct and it contains all major steps, it isn’t a complete list. There are always other aspects that need to be added, depending upon the site and the project details. The NOC list is definitely not exhaustive. Larger projects require NOC’s from forest and irrigation departments. Sometimes religious buildings in certain communities will have some other extra NOC’s. Furthermore all participants admitted that it is difficult to find a complete list of these approvals anywhere. Even within the municipal body, due to constant reforms and changes, authorities themselves do not always know an exact list of all approvals. This information is completely found only when you start the actual process of approvals.

2. Is the order of approvals as indicated in the spreadsheet correct?
While half of the respondents approved the overall above order of approvals, one of the participants indicated that the site inspection process needs to happen before the Building layout approvals. He also voiced the opinion that the approvals from the Airport Authority, and for coastal areas should be considered a separate step of the process. The interviews also established that within the NOC list there is no correct order for achieving the various steps. Some of these can happen simultaneously.

3. The table indicates the expected time taken for the various approvals. In practice how many days do each of these steps take?

There was consensus in admitting that all these time frames are just idealistically speaking. None of them make sense in the real world. You need to be prepared to spend at least twice the amount of time in the processes. While most Developers stated that a normal time frame to get all approvals done is around 2 years at least, there is also belief that the process can be expedited if the developer is a local person familiar with the specifics of the requirements in his particular area. Working with architects who directly have ties with the municipal body is another way to speed up the process.

4. What is the biggest concern at each of these steps?

Once again, though the researcher intended to find out concerns at every step of the process, responses were of a general nature, with some specifics based on individual experiences. Some of the key issues that stood out were the lack of consistency and transparency in the process, the
costs (out of pocket expenses), the exhaustive list of requirements etc.

Participant 3 made an interesting point about the fact that the Environment Clearance is provided by the central government (MOEF), while the rest are State. This many a time creates issues and delays in approvals. Good planning is essential to ensure you can satisfy both requirements.

5. Which approval is the most tedious/ which aspect of the approval process is your biggest concern?

The responses to this question were very personal and situational. No conclusions could be drawn at large. But some of the steps that came up as being tedious include EIA, Airport Authority clearance, CC and the long list of NOC’s. The Environmental clearances appear to be tedious for everyone since the governing body is different from the regular municipal body.

The two other questions asked dealt with opinions of the developers regarding how they would like the process to be better streamlined, and tips from their experience as to how one can expedite the whole process. While the first one helped the researcher gain more background to understanding individuals’ requirements, it doesn’t contribute directly to the study. The second question was an attempt at helping establish some common practices or tips to help expedite the process, but unfortunately all responses were discouraging. They all believe that unless the existing system is revamped, and a single window approval system is established in practice, there are no ways to help expedite the process.
Working with locals and other professionals who regularly work with the local bodies can provide some relief. But at large there is no solution.

4.4 Findings and the research question

Tying the findings from the interviews back to the research question required a lot of cross referencing and comparisons of all the tables represented in this chapter. The findings about the workings of developers within the industry, are tied to the concerns of land availability, land costs and approval processes. This helps understand common practices with respect to affordable housing. The final chapter that follows draws conclusions, and represents the findings in relation to the various concerns of developers which are focused upon.

Although an exhaustive list of definitive best practices could not be arrived upon, since everything in the industry is so subjective, the researcher was able to draw meaningful suggestions for working with each of the concerns established. Each specific concern (as listed earlier) is tied to the policy aspects which cater to it. Then common practices and ways in which developers tackle the issue are listed. The intent with this is that this helps fill certain knowledge gaps that exist in the country, and helps developers learn from the workings of others, which they can use to their advantage when working in the industry.

4.5 Summary

This chapter presents the data gathered from the multiple levels of data collection carried out in the course of the study. The findings from the two rounds
of interviews are presented in the same structure and format. The data collected and the process of its analysis are first displayed, followed by the findings of the researcher. While the first round of results helped the researcher narrow down the focus areas of the study, they also helped shape the path the study should further adopt. The second round of interviews gave an insight into the practical workings of developers in the industry, and how they work within the existing framework. The findings help draw conclusions about the research question of the study. This shall be presented in the ensuing chapter, which draws upon the data referenced in this chapter.
CHAPTER 5. CONCLUSIONS & RECOMMENDATIONS

This study delves into the workings of private developers in the affordable housing segment in Mumbai, India. The purpose of the study was to investigate how private developers deal with their land related concerns, while working in the regulatory framework of the State. The intent was to identify best practices that can help tackle land related concerns of affordable housing developers in Mumbai. Each of the interviews conducted was done so as to gain an insight into various concerns of developers, and their common practices with respect to land concerns. The previous chapter lists the data collected and the various findings of the researcher. This chapter will first present conclusions from the findings discussed in the previous chapter, by providing some summative statements about best practices for private developers in Mumbai. The chapter concludes with recommendations for future research work in the field of affordable housing in Mumbai, India.

5.1 Conclusions

The results collected by the researcher show clear indication that while there is no “one” set of practices that can best deal with the land related concerns of developers working with affordable housing in Mumbai, some
common practices can be worked out to tackle these issues. The issue of land has multiple interconnected aspects to it. The results correlate findings from the second round of interviews, with results of the first. Best practices are identified as follows:

Table 5.1

*Land Availability – framework & best practices*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Regulatory aspects</th>
<th>Findings from developers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited City Land</td>
<td>Renewal &amp; redevelopment schemes, JV promoted</td>
<td>Land by government is not a reality. Though it doesn’t benefit developers directly, mandatory inclusion of AH in layouts helps increase AH supply. Redevelopment schemes are gaining popularity. But challenges with Redevelopment and JV venture should be tackled. Higher FSI when you work with AH.</td>
</tr>
<tr>
<td>Developments outside the city</td>
<td>STP (for large clusters) and where land is available.</td>
<td>Developments away from the city core are coming up, because of lack of land within the city core, as well as high costs in the city. But planning for infrastructure is key in such cases. Also connectivity is an issue. STP also gives fiscal incentives, and automatic NA permission.</td>
</tr>
<tr>
<td>Majority of the land is in private hands</td>
<td>JV &amp; Redevelopment schemes. Also RCA in the hope that it opens up more land possibilities</td>
<td>Private negotiations work, also JV. This also ties in directly with high costs of private lands.</td>
</tr>
<tr>
<td>Redevelopment options to be explored more</td>
<td>Renewal &amp; redevelopment schemes introduced after 2007 Housing Policy</td>
<td>Very much in practice today, it is being explored as a viable option. But getting tenants on board and high upfront costs (compensation) are challenges when dealing with this</td>
</tr>
<tr>
<td>Re-planning FSI for better land use</td>
<td>Strategies help provide increased FSI for affordable housing</td>
<td>Higher FSI for AH is a reality, and it is definitely an incentive.</td>
</tr>
<tr>
<td>Impact of RCA &amp; ULCA</td>
<td>RCA repealed</td>
<td>Developers are not directly benefited by this, but definitely helps the rental market and the affordable housing segment at large. (no talk of ULCA emerged in the interviews)</td>
</tr>
</tbody>
</table>
Table 5.2

Land Costs – framework & best practices

<table>
<thead>
<tr>
<th>Issue</th>
<th>Regulatory aspects</th>
<th>Findings from developers</th>
</tr>
</thead>
<tbody>
<tr>
<td>High overall cost of land</td>
<td>No specific provision by government to decrease land costs</td>
<td>There is no way to deal with it. Redevelopment schemes &amp; JV provide some relief. Looking outside city limits is another possibility. Finding capital is important. Investors need to be tracked down.</td>
</tr>
<tr>
<td>Private lands increasing cost of land</td>
<td>Joint Venture schemes, Redevelopment scheme</td>
<td>Private negotiations work well, joint ventures also do,</td>
</tr>
<tr>
<td>Limited land availability further increasing costs</td>
<td>-</td>
<td>Look outside city limits, work with AH for higher FSI, redevelopments</td>
</tr>
<tr>
<td>High PAP compensation for redevelopment</td>
<td>-</td>
<td>There is no solution – this is an issue for redevelopment, but it is worth the trade off for land</td>
</tr>
<tr>
<td>Land costs making up 80% of total costs</td>
<td>No policies or schemes to curb land costs</td>
<td>Unless government takes a stand, no way to get around this. Reducing costs of approvals processes will help a little. Higher FSI for AH helps to some extent.</td>
</tr>
<tr>
<td>Government should make land more available</td>
<td>The policy claims to be doing this, though</td>
<td>Doesn’t exist in reality, because most of the land is in private hands. Unless government comes up with policies limiting the land individuals can hold, there are no solutions to increasing supply of land, or making new land available</td>
</tr>
</tbody>
</table>

With respect to land approval processes, the responses did not contain specific points about the different levels of approvals. Instead, all the responses focused on the bigger picture of the process as a whole. The issues about the process being complicated, lengthy and time costly are all interconnected. No concrete suggestions for best practices can be made here, the list of findings (in the previous chapter) elaborate on the situation. The list of findings, in the
previous chapter indicate the only hope developers have and want, is for a “Single Window” approval system to be put in place.

While the researcher aimed to find definite answers to best practices in the industry, the subjective and situational nature of the topic area led to the above findings, which are in no way exhaustive or complete. But they are at least a start to the process of tackling various concerns of private developers when it comes to land concerns in Mumbai.

Summarizing, some of the conclusions drawn by the researcher are:

1. Policies take a long time to be implemented and completely put in practice, and policy creation and implementation are very different aspects.

2. Many a time interview responses contained only portions of information requested, reflecting upon the fact that there is no clarity about the regulatory framework and the multiple policies, rules and regulations that govern housing.

3. Developers should be aware of Redevelopment schemes and Joint Venture schemes by the Government, which are trying to tackle the issue of land availability and land costs.

4. Capitalizing on higher FSI provided for Affordable Housing is a good way to cope with high costs. This can provide some relief.

5. Looking outside city limits is not always a bad idea. However, ensuring adequate infrastructure and connectivity to such parcels of land, is key.
6. The Special Township Policy can serve as a good platform to work on larger scales, but people are not yet aware of its specifics. Tackling the challenges of large land required for the same is essential. This is more viable in the outskirts of the city.

7. Success in the industry is not simply about complying with the rules and regulations that exist. It is about working with the right people, and making sure to capitalize on the advantage and knowledge that locals have, other others.

8. Schemes such as the Special Township Policy, Joint Venture and Redevelopment are present to help developers with different options for pursuing affordable housing. When working with these, it is important to understand the challenges that one can face, and plan well keeping those in mind.

9. No improvements in the land approval process can be hoped for until a “Single Window” approval system can be put into place.

5.2 Recommendations for future research

The process of conducting this study in Mumbai was very insightful, and led to the understanding of a variety of aspects pertaining to affordable housing in Mumbai. At the same time, it also established knowledge gaps in the area of study. The potential of study in such a pressing topic is vast and diverse. But the researcher recommends future research to be carried out in the following areas, based on his experience doing the present study:
1. Since the latest Housing Policy has been in place only 7 years (which is a short period of time for impacts to be felt), the same study can be carried out at a later date, to identify if the strategies and objectives of the State have been better achieved.

2. This study was qualitative in nature, and a start to addressing the land concern of developers. A follow up quantitative study evaluating the value of findings in this study can be conducted, to help establish how much of this document can be of use in the real world.

3. Research why the “single-window” approval system in not in practice, though there is only one municipal body (and just different departments within it) that deals with the land approval process.

4. Understand how a “single-window” approval process can be put in practice in Mumbai. A study of how Navi Mumbai & Pune have achieved this, can help to draw parallels to the situation in Mumbai.

5. This document outlines various concerns, and establishes gaps where there are no policies, to address the list of land concerns. Policy suggestions to cater to these can be formulated.

6. Research about how urban planning can help the process of developing affordable housing, can be very helpful.

7. Study how a complete, full proof list of approvals for land processes, should be documented. Documentation regarding this is very less, and hard to find.
8. Redevelopment schemes are gaining popularity, but there are still several challenges with respect to these. However, they still provide a promising solution to the aspect of land availability. Research about making the redevelopment schemes more successful, is essential.

9. Joint ventures, which also tackle the issue of land and high upfront costs, can be better studied to understand the reasons for reluctance by individuals to be involved in the scheme. Enticing them with better benefits could prove to be helpful.
LIST OF REFERENCES
LIST OF REFERENCES


APPENDICES
Interview Round 1 – Establishing concerns of private developers

1. Introductory level broad questions:
   - What is the primary motivation behind doing affordable housing projects?
   - How many such ongoing projects is the company involved in at present?
   - Does the company (or you) face challenges or hurdles when dealing with affordable housing?

2. Transition questions
   - What are some of the main concerns when it comes to affordable housing?
   - If you had to rank these concerns in order of their importance, what would be the top 5 deterrents?

3. Focus questions
   - What aspects regarding land affect affordable housing?
   - What land policies and regulations are being a hurdle rather than helping with the situation?
   - What are some of the policies that you would like to change, to help encourage more involvement in affordable housing?
Appendix B  Interview Round 2A

Interview Round 2A – Establishing best practices for land availability, costs

Some of the aspects of the Maharashtra State Housing Policy (issued in 2007) are spelt out below, followed by questions pertaining to them.

OBJECTIVES

- Deregulate housing sector and encourage competition and private-public partnerships
- Rationalize DCR and streamline approval procedures
- Promote rental housing through amendments in RCA
- Renewal and redevelopment

1. In your opinion has the Policy been successful in achieving each of these objectives, starting 2007 (yes/no)?
2. If no, which ones weren’t achieved?
3. Which of these objectives has been best achieved?
4. Which of these has been most beneficial to you?

STRATEGIES

Land availability:
- Provide lands for LIG, EWS within and in proximity of cities, towns and rural areas
- Inclusionary zoning provisions for LIG in private layouts
- Planned development of peri-urban areas for Affordable Housing
- Higher FSI for LIG housing (efficient land use)
- Value based property tax- for urban vacant lands
- DCR allocate lands for public housing through PPP.
- Increase FSI outside of the MMR region by encouraging “Special Township Schemes”. (proposed to carry out changes in DCR)

1. Which of the above mentioned strategies have actually been put into practice?
2. How can you best utilize/procure land made available by the Government, for Affordable Housing?
3. What is the best approach to obtain higher FSI? How helpful is this for affordable housing development?

STREAMLINING THE N.A process –

Land owner does not have to apply to the collector separately for the NS permission. The Municipal body which provides the development permission sends all necessary plans and drawings to the collector, thus this reduces one step for the land owner.

1. Has this been achieved successfully?
2. In your opinion how can the process be further streamlined?
3. In the area of approvals, how do you ensure that you reduce time loss for the various stages?
4. What is the average time it takes to get all the approvals done?
PLANNING REFORMS

- Streamline building approvals through innovative reforms such as self approvals through accredited architects and use of Information Technology
- Liberalizing DCR, promoting efficient land use through higher FSI for LIG housing.
- DCR would be standardized for different categories of cities.

1. Have rules and regulations been standardized?
2. What is the latest set of DCR, and where can one find them?

RENTAL HOUSING

- Amendment to the Rent Control Act
- Incentivizing rental housing through higher FSI and fiscal incentives in Property Tax

1. In your experience, has this rent control act been repealed completely?
2. What are these fiscal incentives in Property tax? Are they for the landowner or the occupant?
3. How is the developer benefited by this?

SPECIAL TOWNSHIP POLICY

- N.A permission granted automatically
- Exemption from ULCA
- Floating FSI
- Stamp Duty shall be only 50% of prevailing rates
- Partially exempted from payment of scrutiny fee for processing development proposal
- 50% concession in payment of development charge

1. What are the specifics of such a “special township policy”?  
2. Are the financial incentives significant enough to generate more Affordable Housing through this method?  
3. Is the automatic NA permission a reality?

MANDATORY LAYOUT FOR EWS/LIG/MIG

- Mandatory to provide at least 10% of the layout for EWS/LIG (not exceeding 30 sq.m)
- Another 10% of the layout for MIG (not exceeding 50 sq.m)
- Higher FSI is available if more area is allotted for EWS/LIG

1. Is this in practice today? When does it hold true – for what types of housing developments, are there any area/cost minimum cut offs?  
2. Knowing that developers aim for a direct path to get approvals in the shortest time, what are some of the techniques for complying with this requirement?  
3. And what are the specifics for developing these? Do they have to be on site necessarily or off site developing of EWS/LIG/MIG housing is also allowed?  
4. What is your take on this?
GENERAL QUESTIONS

1. Of all the schemes by the Government (special township, redevelopment, joint venture) which of these is most helpful and why?

2. With respect to procuring land what, in your opinion, is the best approach to procure land?

3. What are the challenges for someone/you to be involved in
   a) Special Township Policy
   b) Joint Venture projects
   c) Redevelopment projects

4. How can you tackle these challenges?
Interview Round 2B – Land approval processes

For part B of second round of interviews, the file sent out to interviewees is mentioned in the document (excel table layout with a list of approvals required). But in addition, a detailed list of NOC’s was included.

<table>
<thead>
<tr>
<th>List of NOC’s</th>
<th>Time Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>From tree authority</td>
<td>30-60 days</td>
</tr>
<tr>
<td>From Storm water &amp; Drain dept.</td>
<td>15-30 days</td>
</tr>
<tr>
<td>From Sewerage Dept.</td>
<td>15-30 days</td>
</tr>
<tr>
<td>From Electric Dept.</td>
<td>15-30 days</td>
</tr>
<tr>
<td>From Traffic &amp; Coordination Dept.</td>
<td>30 days</td>
</tr>
<tr>
<td>From Chief Fire Officer</td>
<td>30 days</td>
</tr>
<tr>
<td>From Airport Authority</td>
<td>3-4 months</td>
</tr>
<tr>
<td>From coastal areas &amp; if under CRZ</td>
<td>(depends) can even take up to a year</td>
</tr>
</tbody>
</table>

The interviewees were asked this:

Attached is an excel sheet with the list of approvals from start until achievement of the Commencement Certificate, and the expected time taken for these (time limits specified by the Government). Based on the attached excel sheet kindly answer the following questions.

1. Is the list complete? Are there any more approvals, apart from the above mentioned?
2. Is the order of approvals as indicated in the spreadsheet correct?
3. The expected time limits are indicated beside the approvals. In practice how many days do each of these take?

4. What is the concerned approval body for each of these?

5. What is the biggest concern at each step of these?

6. Which approval is the most tedious/ which aspect of the approval process is your biggest concern?

7. Which steps do you think can be combined, to make the process more streamlined?

8. What tips (from your experience) help expedite the whole process?