The Role of Planning in Contemporary Urban India: Consequences, and Lessons from the Hyderabad Metropolitan Rail: Telangana, India

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Abstract

Rapid urbanisation in India has led to its cities becoming increasingly fragmented and subject to massive congestion. Further, the agencies in control of urban development have been widely criticised in planning literature for their role in poor governance processes, corruption and public exclusion. Hyderabad, the largest city and capital of Andhra Pradesh (now Telangana), has suffered from these same issues and its residents endure increasingly poor mobility. In line with Central Government policy which advocates for metro rail as an urban transport solution, Hyderabad has entered into the world’s largest Public Private Partnership (PPP) to develop and begin implementing the Hyderabad Metro Rail (HMR). Given the scale and significance of the project, and the various stakeholders involved, the HMR provides an interesting insight into the current state of planning and urban development in India.

This research addresses the implications of the planning process in Hyderabad, and how these are manifesting in the Metro Rail project. The thesis focusses on the role planning plays, and the degree to which it is used in the project. Specifically, the thesis analyses the impacts of the planning process on the wider public, and communities in the city. Further, the research addresses implications on the HMR as a result of broader failures in the planning and regulatory frameworks in the city.

Based on intensive fieldwork amongst bureaucrats, planners, non-governmental organisations, academics, journalists, religious communities and business communities the thesis finds that poor planning frameworks have led to underutilisation of, and inadequacies in, the planning process. Further, it shows that the interaction between master planning and regulation falls significantly short of the necessary level for such a large project. In addition, coordination between urban local bodies is lacking, and the understanding of each agencies role in the project is minimal. This planning process has led to inadequacies in consultation with citizens, and exacerbation of impacts on low and middle class communities in the city.
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<tr>
<td>GHMC</td>
<td>Greater Hyderabad Municipal Corporation</td>
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<td>GoAP</td>
<td>Government of Andhra Pradesh</td>
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<tr>
<td>GoI</td>
<td>Government of India</td>
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<tr>
<td>HMR</td>
<td>Hyderabad Metropolitan Rail</td>
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<tr>
<td>HMRL</td>
<td>Hyderabad Metropolitan Rail Limited</td>
</tr>
<tr>
<td>HMDA</td>
<td>Hyderabad Metropolitan Development Agency</td>
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<tr>
<td>ISKCON</td>
<td>International Society for Krishna Consciousness</td>
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<tr>
<td>JNURM</td>
<td>Jawaharlal Nehru National Urban Renewal Mission</td>
</tr>
<tr>
<td>L&amp;T</td>
<td>Larsen and Toubro Metro Rail Hyderabad</td>
</tr>
<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
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<td>TOD</td>
<td>Transit Oriented Development</td>
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In the period between the conclusion of fieldwork, and the completion of thesis writing, Andhra Pradesh was bifurcated into two states via the Andhra Pradesh State Reorganisation Act 2014. Andhra Pradesh has now become the two states of Telangana and Seemandhra. Hyderabad is located in Telangana, although remains the capital of both states. This research refers to both states throughout, as information relating to Andhra Pradesh and its government are pertinent to the development of the Hyderabad Metro Rail. Further, information relating to Telangana has also been included where relevant, as this also has implications for this research, and potential outcomes for the Metro Rail.
Chapter One: Introduction

Planning for urban mass transit has long been a concern of local and central governments. With greater urbanisation and larger urban populations, the problems and potential solutions of urban mass transportation are an ever increasing concern for planners. The process of implementing integrated and coordinated solutions to transportation problems is challenging in any environment and requires tailored and contextually specific approaches (Rodrigue et al., 2006). With global dependence on the private motor vehicle and social apprehension toward the use of public transport, the challenge of providing mass transit solutions for cities is often an uphill battle.

With ever-increasing urban populations and sprawling cities, India faces problems of urban transportation on a scale unlike nearly any other country (Mohan, 2006). The process of developing and implementing transportation solutions is complicated by complex political, social and economic processes. These complexities have resulted in cities with unconstrained growth, and inability to easily, efficiently or safely commute through dense urban road networks. The worldwide reliance on private transport has been magnified in India, and resulted in dangerous, slow and inefficient transport networks which have serious implications on the day to day lives of urban dwellers, and the economic performance of the country (Rahul and Verma, 2013).

These transportation challenges have been, and continue to be, exacerbated by difficulties in achieving effective and efficient planning. Despite a proud history of urban master planning and land use zoning, contemporary urban India has struggled to maintain good planning practice (Roy, 2009). India’s planners and decision makers have been blamed for consistently underestimating infrastructural and urban service requirements for cities. The result has been a lack of resources to cope with growth, and increasingly fragmented cities (Roy, 2009). Chatterji (2013) states that planning appears to be receding further into the background as different interests take hold in the use and development of land in the country. The problems highlighted by these authors are discussed widely throughout research on urban India, and are increasingly prevalent throughout the country. These challenges which threaten the planned development of Indian cities are occurring widely, and this thesis seeks to address and understand these
planning concerns, with a specific focus on the planning sub-discipline of transportation planning.

The research targets the planning issues and implications of implementing a new mass rapid transit system, and what impact this process has on the population which this system is to serve. This research uses Hyderabad, Telangana as its central case study and assesses how the city is addressing the aim of providing mass transport for its almost 8 million residents through the Hyderabad Metro Rail (HMR) (Government of India, 2011a). Hyderabad has developed rapidly and has a key vision of becoming a ‘world class city’ (Greater Hyderabad Municipal Corporation, 2006). Considering that context, the planning challenges being faced throughout India are likely to be evident and perhaps exacerbated in Hyderabad, therefore providing a pertinent case study.

This thesis will address the fact that India as a whole has widespread issues with its planning system. Indeed, the proud history of master planning that its urban areas were developed upon have seemingly receded to the background in favour of extensive development and allocation of private interests in land use. The thesis progresses to submit that these issues are being experienced in Hyderabad, where the interaction and role of planning agencies in the HMR has led to a number of significant issues in the planning process. These issues not only have tangible impacts for the future development of the city through inefficient and ineffective planning, but negatively impact upon all parties involved in the process, particularly the implementing authorities; Hyderabad Metro Rail Limited (HMRL) and Larsen and Toubro Metro Rail Hyderabad (L&T). Further, that process has led to communities being ignored and exploited as a result of rapid and ad-hoc planning and development.

Specifically, the thesis will demonstrate findings that assert Hyderabad’s planning system suffers from a distinct lack of transparency, and that the relationship between the bureaucratic and technocratic elite has led to a relegation of the planning process in the city. Further, it will show that this planning process is highly exclusionary of the general public, as a result of concern regarding attending to complaints, and wider attitudes surrounding the knowledge of the public versus elected decision makers and technocrats. These issues are exacerbated by inadequate communication and undefined roles and responsibilities for planning agencies, which result not only in a lack of good
practice land use and transport planning, but a mismatched ideal of how to best achieve better urban transport for Hyderabad. The thesis will show through empirical data collected during fieldwork, and through broader theory of best practice planning and public participation, that the HMR signifies a failure of the Hyderabad planning system, which is perhaps emblematic of a wider deficiency in the contemporary role of planning in India.

1.1 India and the Metro Rail Phenomenon

As the literature review and context chapters will show, India has undergone a major shift in recent years towards the building of rail-based urban transport. This has taken place largely due to the central government shift, advocating the improvement of urban transportation and a reduction in vehicle dependency. Generally speaking, India’s answer to transporting its increasing urban masses has been the metro rail.

India’s first metro rail began operation in 1984, in Kolkata. Despite being well utilised in Kolkata, only a single further system was developed before the millennium, with the Chennai system opening in 1995. However, owing to strong policy direction in the early 2000s, and changes to the financing arrangements of large scale transport infrastructure projects in India, 27 metro rail projects have begun, or will begin operation within the next 8-10 years. These include the systems in Delhi (operational since 2002), Bangalore (operation since 2011), Gurgaon (operational since 2013) and the metros in Jaipur, Mumbai, Kochi, and this case study, Hyderabad, which are to be operative within the next 2-3 years.

The current research is then set amongst a backdrop of massive investment in metro rail across India, not only economically; but socially, environmentally, and politically. This research targets planning’s role in the metro rail phenomenon, with particular reference to the HMR, and how this particular case study operates within the wider change to urban transportation in India.
1.2 Metro Rail in Hyderabad

Given the remarkably high growth of Hyderabad’s Metropolitan population over the last 60 years, it has become imperative to address the city’s rising public transportation concerns. The period 1951 to 2011, saw a massive increase in the population of the city, from 1.08 Million in 1951 to 7.7 Million in 2011 (Government of India, 2011a). The growth in population, alongside substantial development of the city’s economy, has resulted in massive increases to Hyderabad’s middle class which is reflected in substantial private vehicle ownership in the city. The proliferation of private vehicles on Hyderabad’s roads has crippled the transport networks in the city, and stunted the mobility of its residents. In considering a solution to these issues, the Government of Andhra Pradesh (GoAP) and Hyderabad’s planning authorities have maintained a national trend of holding metro rail as the solution.

The HMR provides the proposed solution to Hyderabad’s transportation crisis. Featuring fully automated and elevated metro lines, with 66 stations, phase one of the project will comprise three traffic corridors totalling 72km in length. With a carriage capacity of 1000 passengers, the project estimates over 50,000 passengers per hour utilising the system (Hyderabad Metro Rail Limited, 2012). In addition, commuting time will be significantly reduced with the metro travelling at an average speed of 34kmh, over three times that of the current road transit speed (Hyderabad Metro Rail Limited, 2012). The project is scheduled for completion in January 2017, with two of the three corridors already largely completed. Figure 1 indicates the broader metropolitan area which the HMR runs through, and a closer view of the Metro Rail and other transport routes within the context of the Hyderabad Metropolitan Region.
Figure 1. Hyderabad’s Central Zoning with Key Transport Routes Indicated on the Right Hand Diagram. Adapted from: Hyderabad Metropolitan Development Authority (2013b).
Boasting a status as the world’s largest project under the Public Private Partnership (PPP) mode, the budget of the HMR is officially the equivalent of NZ$3.1bn, although recent estimates suggest the cost has increased to around NZ$3.5bn (Shiv Shankar, 2012a). Of this cost, 90% of will be met by the private partner, L&T, and the remaining 10% by GoAP as part of its ‘viability gap’ funding scheme (Hyderabad Metro Rail Limited, 2012). Concession for an initial 35-year period was agreed between L&T and GoAP in May 2012, with a 25 year extension being optional to both parties. Concession was agreed on a Design, Build, Finance, Operate and Transfer basis, and at the end of the concession period, control of the system will return to the Government of Telangana, who have replaced the former GoAP.

The HMR will pass through principal roads, and connect major bus hubs, residential areas and commercial facilities (Larsen and Toubro Metro Rail Hyderabad, 2014b). Hyderabad Metro Rail Limited (2012) highlights that the project is not simply a metro rail, but an urban rejuvenation and redesign process, which aims to transform Hyderabad into a people friendly, green city. This will be achieved through extensive Transit Oriented Development (TOD) and associated economic development. This TOD takes the form of GoAP providing land and rights for L&T to undertake real estate development through two methods. They are; commercial exploitation of the air space surrounding stations through advertising and the provision of government land for the creation of further facilities and development. The cumulative area allowed for development is 18.5 million square feet. This land will return to GoAP upon the end of the concession (Hyderabad Metro Rail Limited, 2013).

Prior to the current concession being awarded to L&T, a separate company had completed agreement with GoAP to finance the Metro. In July 2008, Maytas, a consortium from Hyderabad, were awarded the contract to Build, Operate and Transfer the HMR. Maytas had hoped to operate the HMR with similar revenue plans to L&T, to generate the bulk of income through real estate ventures associated with the project. However, less than a year later in July 2009, GoAP cancelled the concession citing that Maytas had failed to generate adequate finances to bankroll the project. This followed the development that a parent company of Maytas, Satyam, had been illegally accounting for income, and the realisation that both companies had substantial debt. In addition to the accounting scandal which debilitated both Satyam and Maytas, there had
been calls for inquiries into GoAP regarding the concession process for the HMR. Concerned citizen groups within Hyderabad had made claims regarding the favouritism shown to Maytas regarding infrastructure projects, although little came of the claims (Times of India, 2009).

1.3 Research Aims & Key Questions

There is a clear rationale for the current research to be undertaken given the significant gap of research into the social implications and impacts of undertaking a new mass rapid transit system in India. The current research not only focuses on the planning process, and how this can contribute to satisfactory outcomes, but it does so in relation to the important socio-economic environment within which the HMR is being implemented. Hyderabad provides a highly appropriate location for the research given its contemporary technological approach to solving its increasingly serious mass transportation problems. Considering the diverse and ever changing socio-cultural and political processes within the city, Hyderabad provides a dynamic context within which to look at the issues identified for investigation. The research provides an opportunity to improve and build upon an evolving planning process in Hyderabad, and provide in-depth lessons for the legislative and policy stance for future developments of the kind being studied. Further, it provides an opportunity to highlight the social issues which can be inherent with the planning process, and particularly so in a project of such significant and scale as the HMR.

The overall aim of this thesis research is therefore to evaluate the socio-economic impacts and implications of the HMR, with specific regard to the role of the planning process and framework.

This aim is to be achieved through undertaking the following key research questions:

1. What role has the planning process had in the development of the Metro Rail, and wider city development in Hyderabad?

   a. What aspects of the planning process have been inadequate in the development of the city and the Metro Rail?
2. To what extent have the public been meaningfully included in the planning process, and adequately informed about the development of the Metro Rail?

3. What impacts have there been on communities in Hyderabad, and what are the implications of these impacts?

The first research question will target the planning process and governance behind the HMR. It will assist in evaluating land use and transportation planning, and the different groups and agencies involved in the planning of the project. A direct focus of the question will be to target particular areas of the process that could be improved, to deliver a more effective planning process and project outcomes. Analysis will be undertaken into the current discourse and international experience surrounding planning, and how the results from this case study compare with commonly accepted best practice governance and planning principles.

The second question will focus on the role of consultation and public participation in the development of the HMR. Specifically, the question will evaluate the level of affected party consultation and how this process could be better undertaken. Further, the question seeks to analyse to what extent the public have been meaningfully involved in the development of the project and the decision-making process behind it.

The third question focuses on how the planning and implementation of the HMR has impacted wider communities throughout the city. The question will assist in evaluating both the positive and negative consequences of the project for the case studies. Of primary focus in this thesis is how the planning and consultation processes utilised in the development of the HMR, may have contributed to negative impacts being experienced by key parties involved in the project.

Analysing these research questions will primarily be undertaken through a case study approach, as chapter four of this thesis will indicate. An overview of these case studies and their locations is highlighted in the following section.
1.4 Case Studies

The following micro case studies, which are points of contention in the HMR project, are integral parts of the research process. They are used to highlight various issues in relation to this research, and demonstrate a wide array of issues which are pertinent to the HMR, its development and the planning processes behind it. The case studies are being used so as to highlight the impacts which planning and decision-making have at the micro scales in a city like Hyderabad. They will demonstrate how the planning process can manifest in different ways depending on various socio-economic considerations. Further, they will highlight how decision-making, not based on sound planning processes, can have negative impacts not only for the wider community, but also the planning authorities and government. The locations of the case studies with relation to the Metro Rail is highlighted by figure 2 overleaf:
Figure 2. Hyderabad Metro Rail Map, with Case Studies Indicated. Adapted from Hyderabad Metro Rail (2008).
Sultan Bazar

Sultan Bazar (figure 3) is a commercial hub on the outskirts of Hyderabad’s old city. The Bazar not only acts as a crucial economic base for around 200 businesses and their employees, but is over 200 years old and therefore a crucial historic heritage resource for the city. The area has been widely reported by local media as a key area of contention in the development of the HMR (Venkat Ram Reddy, 2013, Garari, 2014, Shiv Shankar, 2013, Times of India, 2014b). The reasons for this are numerous, and comprise many of the criteria for why the Bazar was selected as a key case study in this research.

Located directly on Corridor-2 of the HMR from Falaknuma to Jubilee Bus Station, the Bazar is at risk from land acquisition and demolition. This land acquisition process is required to widen the road in the area, so as to accommodate the construction and development of the overhead corridor of the metro. This road widening would result in the destruction of the majority of buildings within Sultan Bazar, including historic buildings, key trading centres and religious structures.
The area makes an interesting and relevant study area for this research due to the wide array of planning issues that appear to be manifesting in the Bazar. The issues surrounding the demolition of heritage, religious and economically important buildings could allude to issues in judgement from planning authorities and the process behind the metro’s implementation. Given the socio-economic conditions in the area, land acquisition and associated demolition are likely to have detrimental impacts on the living conditions and quality of life for local people.

Sultan Bazar has therefore been chosen because of the array of perspectives and information which are likely to be obtained. The contentious nature of this area and the issues involved are likely to be useful in meeting the aims and objectives of the research.

**ISKCON Temple**

The International Society for Krishna Consciousness (ISKCON), colloquially known as the Hare Krishna movement, is a secular organisation of Hinduism. With two temples and thousands of devotees in Hyderabad, the ISKCON movement is popular in the city. The case study temple (figure 4) serves many thousands of worshippers a day and is located within a highly congested part of Hyderabad, at the junction of the Inner Ring Road and many major arterial roads.

The temple provides another significant point of contention, with the development of the metro having significant impact on the temple and its community. A building of outstanding cultural and religious importance, the temple structures themselves are over 100 years old. HMRL propose to acquire around 900 square yards of the temple grounds, although they maintain that there will be no impact on the temple itself (Times of India, 2014a). This has proved a problematic issue for HMRL, L&T and the representatives and community of ISKCON Secunderabad, who rely on the temple for religious and cultural purposes.
The ISKCON temple provides an interesting insight into a number of elements of the planning process. First, it shows the interaction between the values held by community groups and the push for city development, thus highlighting the trade-off between the two. Further, it highlights the process of affected party consultation and negotiation, from pre-consultation to the ongoing interaction between ISKCON and HMRL. Overall, the case study highlights how poor, or ill thought out planning decisions can manifest in such a contentious and politicised context.

Ameerpet

The final case study focuses on a 350m stretch of the Mumbai Highway, in Ameerpet district (figure 5). The area is a vibrant and bustling shopping, market, service and transit area which is busy around the clock. Located in north-western Hyderabad, the case study site hosts a sizeable number of large scale and small scale retail, textile, and service stores, as well as countless roadside hawkers.
The development of the area has been rapid and largely fuelled by the development of the northern part of the city. The inflow of traders and retail establishments in the area has been an ongoing process since the early 1990s, when the land was predominantly vacant and on the urban periphery. Demonstrating the rapid growth of Hyderabad, Ameerpet district is now a thriving economic hub, frequented by tens of thousands of people daily. Within the immediate vicinity of the district are a large number of higher educational facilities and IT training centres. These contribute to the influx of people visiting the area for various purposes on a day to day basis. Business in the area provides economic livelihood for the traders who own or lease shop space in the area, as well as the thousands of hawkers who occupy the roadsides and pavements of the district. The large number of people who visit, live, and work in the area leads to dangerous levels of congestion, and negative interactions between pedestrian and vehicular traffic. Therefore, this has been a key area targeted by the HMR, with the aim of limiting congestion in the area and continuing to spur economic development.

The Ameerpet area provides a diverse case study for the purposes of this research for a number of reasons. The sheer number of people in the area makes the district a key
target for the development of the HMR, and the mobility this provides to people who utilise the area for various purposes. However, many existing renters and property owners in the area are being affected by the construction of the HMR, associated road widening and demolition of properties. Further, L&T are undertaking real estate based TOD in the area, primarily in the form of large-scale mall complexes. This will lead to interaction between existing trading areas and the new form of retail, resulting in potential conflict between these land uses. A large number of issues are evident within Ameerpet, and the area provides a key case study in evaluating the impacts of the decision-making and planning process behind the implementation of the HMR.

1.5 Conclusion

The issues of transportation in India are multiple, and they exist within a rapidly changing social, economic and political climate. Planning on a worldwide scale has common features which now permeate through to national, regional and local level planning practice, or at least they should in an idealised situation. The HMR provides an intriguing case study to research these planning spheres, and the role that planning has in contemporary India. Further, the micro scale case studies stand to highlight the key planning issues which are being experienced at the community level in Hyderabad, as summarised in table 1 below.

Table 1. Key planning issues represented by micro case studies.

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<tr>
<td>Sultan Bazar</td>
<td>• Impacts of planning process on livelihoods&lt;br&gt;• Demolition of heritage&lt;br&gt;• Impacts of land acquisition and compensation process</td>
</tr>
<tr>
<td>ISKCON Temple</td>
<td>• Consultation between HMR authorities and community groups&lt;br&gt;• Interaction between development and sites of religious/cultural importance&lt;br&gt;• Overall consultation/negotiation process</td>
</tr>
<tr>
<td>Ameerpet</td>
<td>• Impacts of TOD&lt;br&gt;• Impacts of planning process on livelihoods&lt;br&gt;• Impacts of land acquisition and compensation process&lt;br&gt;• Conflicts between land use</td>
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The current research does not ignore the fact that India is a hugely complex place within which to undertake planning of a large scale transport infrastructure development. Indeed it is acknowledged that many of the issues highlighted herein are products of the wider conflict between technocratic and bureaucratic discourses, and the overall system within which those decisions are made. In this thesis, attention shall be drawn to key planning failures of Hyderabad’s planning system. This thesis will argue that instances of planning failure are prevalent throughout the scales of case study. Further, that these manifest in a variance of ways, across cultural, social, and economic spheres. The research will highlight that without reference to best practice principles, or if parts of the planning process are abandoned either through ignorance or choice, then the outcomes for many urban citizens can be hugely negative. Moreover, outcomes for planning authorities can be embarrassing, inadequate, and exacerbate existing issues associated with insufficient resources, experience and knowledge.

These arguments will be contextualised, and the supporting data for these arguments will be outlined in the thesis which follows. The structure of the thesis highlights a robust and logical process, representing the progression of research. This thesis is divided into eight chapters that address different aspects of the research. The structure of the document is highlighted in figure 6.
The following thesis establishes a framework for evaluating the debate surrounding the planning process in Hyderabad, and how this process is impacting on residents. Further, it shall demonstrate the findings of this research with specific relation to the wider body of knowledge that exists about best practice planning, and the planning and transportation processes in India. This takes the form of a literature review, which follows this introduction.
Chapter Two: Literature Review

Undertaking a literature review prior to field work enables an understanding of wider theory to be developed. This situates the current research within broader processes, and delineates the pathway which the research topic should take (Bryman, 2004). Further, it enables expectations and predictions of the research context to be developed (Bradshaw and Stratford, 2000). However, it is important not to enter the research domain with preconceived ideas, and therein lies a conflict between understanding existing theory, and developing original empirical research (Bryman, 2004).

Bryman (1988) highlights the importance of utilising theory throughout the research process, as it allows ongoing exploration of key themes and theoretical underpinnings which arise during field work. Bryman (1988, p.84) argues that a literature review process “allows theory to emerge from the data, so that it does not lose touch with its empirical referent; it provides a framework for the research to cope with the unstructured complexity of social reality”. The process not only acts then as a means to situate the overall research, but to understand the collected data and make sense of the often perplexing outcomes of field work.

Knowledge gained from this review enabled a specific and targeted research design to be developed, and allowed understanding of how certain planning issues were likely to manifest in Hyderabad. Perhaps most crucially, the broader literature review enabled the current research to be situated within the wider literature, and identify gaps in knowledge and understanding (Adams et al., 2007). This enables a targeted piece of research, which contributes more effectively and positively to the wider body of knowledge.

In reviewing the theory, this chapter focuses on three distinct but interrelated topics. Firstly, it analyses literature in relation to urban transport planning and policy. This topic outlines current discourse in relation to transport planning processes, and the development of urban transport. The second overviews the concept of the PPP, the significance of these in shaping urban transport solutions, and the impacts which PPPs may have on planning and decision-making processes. The third theme focusses on
processes in urban India, which situate the current research in a rapidly evolving and chaotic environment, with ongoing and complex development and planning processes. These topics inform and guide the remainder of the research process, and provide the basis for evaluation and discussion of the research results.

2.1 Urban Transport Planning & Policy

This section highlights a number of key elements which should be considered in researching urban transportation and policy, while also outlining the development and current state of urban transport and transport planning. It includes analysis of aspects including governance, the role of public participation and consultation, multi-modal and intermodal transport, TOD, integrated transport and land use planning, urban policy transfer and world city policy. These elements were identified as being key considerations in wider discussions surrounding transport planning, and more specifically in discussing transport and planning issues in Hyderabad.

In contemporary urban planning discourse, the transportation planning process is seen to have three key activities, as defined by de Luca (2014). Firstly, identification of objectives, constraints, critical points and general strategies for transport systems in urban environments. Following this, identification of the most effective and realistic planning options for a given context. Finally, realisation of the chosen transportation planning mechanism. These aspects are the idealised process of planning for urban transportation solutions. However, there are a complex web of concepts and ideas which are inherent in making this idealised process a reality. The following sections will overview these while focussing on their relevance and importance to the later discussions in this thesis.

Evolution of Urban Transport Planning

The evolution of urban transportation has shaped, and been shaped by the evolution of urban areas themselves (Mohan, 2008). Indeed, Mohan (2008) suggests a relatively standardised process which urban transportation has undergone, as outlined in figure 7.
Advances in technology have increasingly shaped the ways and modes urban dwellers choose to travel (Rodrigue et al., 2006). These advances have allowed a shift from walking as the main transportation option, to advanced transportation systems with countless modes of personal and public transport available within cities. The interaction, combination and integration of these various modes are crucial to the way urban dwellers utilise space.

Understanding the evolution of urban transportation is important in understanding the planning and transportation challenges which contemporary cities face. As Mohan (2008) indicates, the rapid development of transportation options has allowed significant expansion of cities, alongside a rapid growth in independence and affordability of travel. However, despite the positives which advances in transportation modes have brought society, contemporary city dwellers remain overwhelmingly reliant on private motor vehicles, particularly in the global north. It is this reliance that perhaps provides the most thought-provoking challenge in solutions for urban transport. Given
this consideration, the following section will discuss the significance of automobile dependency, and the implications of this on urban space.

Automobile Dependency

Despite proliferation of wide ranging urban transport alternatives, the private car has become the dominant form of urban transportation throughout urban environments in the developed world. Automobile dependency has necessitated planners and policy makers to develop innovative and alternative options for urban transport. Given that metro rail, and specifically the HMR, is one of these options, it is therefore important to contextualise the challenging mentality within which the project will operate.

Rodrigue et al. (2006) emphasise that the role of the private vehicle has not always been paramount. Historically, urban transit had been limited to walking and cycling, restricting the growth of urban cores. This resulted in dense and compact city centres which were unconducive to automobile use. In later years with the rise of automobile production, cities became infatuated with the benefits of private vehicles. The most crucial of these benefits was increased mobility and independence to urban dwellers (Beirão and Sarsfield Cabral, 2007). These increases allowed expansion of cities, with commute times being cut by the efficiency of the automobile. Vehicles became engrained in the daily lives of urbanites and the reliance on the private vehicle has subsequently pervaded most of the developed world. The reliance on private vehicles has led to serious economic, social and environmental consequences for urban areas. Coupled with increases in population and middle class affluence, particularly in the developing world, the problem has continued to grow.

It is often suggested (Kenworthy, 2006, Mohan, 2001, Loo et al., 2010) that an array of methods must be used in order to restrain automobile use and despite the reliance on private vehicles, there remains countless urban transport solutions (Loo et al., 2010). It is therefore important to understand how different modes interrelate and perhaps why failings to integrate different transport modes have fortified ongoing preference for private vehicle use. This is particularly apparent in India, where despite rapid advances in urban transportation options, private vehicle ownership continues to increase in most cities (Mohan, 2006). Given these concerns, the following section evaluates current
theory relating to the concepts of multi-modal and inter modal transportation, and their role in providing urban transport solutions.

**Multi-Modal and Intermodal Transport**

The concepts of multi-modal and intermodal transport are important when evaluating urban transport planning given their increasing use and support in providing solutions to sprawl and congestion (Reis et al., 2013). Therefore defining and understanding the terms are crucial to the current research.

Contention exists regarding the definition of the concepts (Reis et al., 2013). Theorists have focused on them, though tend to avoid defining what they are. The formal definitions of the two concepts have been predominantly discussed by international and non-governmental organisations, particularly the United Nations. The definitions put forward by the United Nations therefore provide a useful contextual basis for understanding multi-modal and intermodal transport.

An early attempt at defining the concept of multi-modalism was put forward by the United Nations:

> International multi-modal is the carriage of goods by at least two different modes of transport on the basis of a multi-modal transport contract from a place in one country at which the goods are taken in charge by the multi-modal transport operator to a designated place for delivery in a different country. (United Nations Conference on Trade and Development, 1980, p.5)

A later revision simplified the concept:

> Multimodal Transport is the carriage of goods by two or more modes of transport. (United Nations Economic Commision for Europe, 2001, p.17)

The United Nations definition focuses on the movement of goods but can comfortably include passenger transit in their scope. Rodrigue et al. (2006) suggest that contemporary multi-modal transport involves numerous modes, not integrated into a singular fee system. These modes service the transport network as related but separate
aspects. A system which does integrate all modes into a fully integrated and singular fee based system, is an intermodal one.

Intermodalism was first defined in 1997 by the European Commission:

Intermodality is a characteristic of a transport system that allows at least two different modes to be used in an integrated manner in a door-to-door transport chain. In addition, intermodal transportation is a quality factor of the level of integration between different transport modes. In that respect more Intermodality means more integration and complementarity between modes, which provides scope for a more efficient use of the transport system. (European Commission, 2007, p.17)

Another definition, put forward by Rodrigue et al. (2006, p.114) describes intermodalism simply as a process where “the entire trip is seen as a whole, rather than as a series of legs, each marked by an individual operation with separate sets of documentation and rates”. In a passenger transport context, intermodalism is the use of a number of transport modes, where the journey is a fully integrated transport network, able to be paid for in a single fare, with a single ticket.

Meyer (2000) highlights that intermodalism represents the most effective and efficient way of transporting both freight and passengers. The concept appears to be particularly useful when considering the integration of urban transport modes, and the benefits which these could provide to the coordination and increased mobility of urban areas. Figures 8 and 9 below highlight the key difference between multi and inter modal transport.
Figure 8. Multi-modal Transport System. Source: Author (2014).

Figure 9. Intermodal Transport System. Source: Author (2014).
Both multi-modal and intermodal transport are used within urban areas, and both operate effectively within different scenarios. Intermodalism is useful within diverse and sprawling urban areas, given the almost inevitable need to transfer from route to route and mode to mode (Rodrigue et al., 2006). Innovations in technology have assisted in developing intermodal transport networks, given the ease of which ticketing can be allocated across modes, routes and even providers. It is unsurprising then that intermodalism now dominates much of the focus for transport planning literature (Reis et al., 2013).

These concepts are key elements when considering planning decisions surrounding a project like the HMR. Theory has indicated the merits of both multi-modal and intermodal transport, and new modes should ideally integrate into one of these concepts. Planning decisions for a project like the Metro Rail should include considerations of the wider transportation network, and how the Metro Rail will fit into that network. Therefore, a key element of the research will be ascertaining to what extent these concepts have been considered in the planning and development stages of the HMR. Without placing the Metro Rail into understandings of how the wider Hyderabad transport system should operate, theory suggests the HMR would be isolated from other modes, and reduce the attraction for commuters.

Another of the key elements in attracting ridership to transport systems, is making transport more than travelling ‘from A to B’. This is provided in the form of TOD which seeks to maximise both ridership and profit from transport systems. Given the ability of multi-modal, intermodal transport, and TOD to contribute to effective transportation solutions, it is important to consider the implications of the concept. The following section will do this.

**Transit Oriented Development (TOD)**

Lund (2006) indicates that metro rail systems around the world are for the most part unlikely to generate positive revenue. Given this, TOD is crucial in generating additional income for the operator, and developing an urban environment which encourages patronage of the new transit system (Loo et al., 2010).
A simple definition of TOD is put forward by Parker et al. (2002) who suggest that the concept is medium or high density development which includes both opportunities of employment and commerce, located within easy reach of a transit station. This is supported by a similar definition from Loo et al. (2010) who indicate that TOD is development of a high density, compact and mixed urban form which has high quality and efficient mass transport, supported by a pedestrian friendly environment. Parker et al. (2002) suggest a number of key elements of TOD; optimal transit system design, community partnership(s), understanding local real estate markets, planning for local TOD, coordination amongst local, regional and state organisations, and providing the right combination of planning and financial incentives.

Research surrounding TOD originally focussed on interactions between travel behaviour and land use in the 1970s (Handy, 2005). Evaluation of the concept continued to focus on the relationships between density and transit use. The emergence of new urbanism and similar concepts, led to increased amounts of research into this relationship (Handy, 2005, Loo et al., 2010). However, despite a large body of knowledge the links between TOD and travel behaviour are still unclear (Loo et al., 2010). Loo et al. (2010) explain that contention exists as to whether or not successful TOD encourages people to reduce automobile dependence and increase transit use, or if those who prefer transit simply locate closer to transit stations. Despite this uncertainty, Loo et al. (2010) maintain that the primary benefit of TOD is its potential to mitigate the problems of automobile dependence. This is supported by Olaru et al. (2011) who indicate that in changing spatial features through TOD, change is also effected in attitude and preferences, which is further reflected in the transport choices of urban dwellers.

Lund (2006) suggests that planners who advocate and develop TOD hope that it will encourage the use of public transport, increase housing affordability and opportunities, promote walking and cycling and facilitate regeneration and neighbourhood revitalisation. A study conducted by Lund (2006) in various US neighbourhoods, suggests that residents share the same optimism about the potential of TOD, and indeed many are drawn not for the transit system itself, but the improved amenity which the associated development can encourage.
There has been considerable discussion surrounding the potential for TOD in urban rail projects. Litman (2007) argues that not only does rail transit development provide the best opportunity for TOD, but that rail transit stations and corridors are the most effective at facilitating TOD, and generating associated benefits. The concept is also highly adaptive to urban environments, and is able to be implemented at both the beginning of new construction and redevelopment of existing infrastructure (Olaru et al., 2011). In support of this, Rodrigue et al. (2006) advocate that transit developments, particularly rail infrastructure, act as a crucial part of economic and social development in which TOD has a significant role.

In evaluating the wider literature and previous experiences we must expect there to be considerable focus on the concept of TOD in the HMR. Particularly in Hyderabad, where economic development is a crucial cornerstone for the development of the Metro Rail. A focus of the research therefore must be to what extent is TOD taking place in Hyderabad, and what impact is it having on the success or otherwise of the Metro Rail project.

Given the discussion surrounding TOD and its importance to the success of both urban space and transportation systems, it is therefore important to look at the intersecting planning fields which make TOD possible. Planning for land use and transportation provide two distinct, yet highly interrelated fields of the planning discipline, and the following section will overview current theory surrounding the practice, and how they are best integrated.

**Integrated Land-Use & Transportation Planning**

Colonna et al. (2012) argue that the exclusive use of land use planning in transport solutions has historically led to a multitude of issues for cities. Urban areas have been planned with an ever growing reliance on the private motor vehicle, thus shaping the cities of the world, and how people travel within them. A direct result of this approach has led to a number of planning and transport concerns; congestion, reduced mobility, increased journey times and environmental impacts to name a few. Therefore, and in
order to address these issues, there has been a shift away from the private vehicle-centric planning approaches of the past, towards a more integrated and sustainable transport planning approach (Litman, 2012).

It has been well documented that there is a crucial link between the practice of land use and transport planning, but that these have neither been undertaken in unison, nor suitably studied with relevance to each other (Bertolini et al., 2005, Priemus et al., 2001). When the two are not considered in unison, the issues of sprawling cities and how to commute around them are reinforced. The relationship between the two planning practices is crucial in combating issues of urban transportation, and the integration of these is likely to facilitate efficient and effective urban transportation solutions (Litman, 2014).

The lack of integration between land use and transportation planning has also been widely noted in an Indian context (Badami et al., 2007, Singh, 2005, Mohan, 2006). Their independent nature has been widely blamed for the uneven evolution and expansion of India’s cities and their transport (Fernandes, 2004, Mohan, 2001, Mohan, 2008, Mohan, 2006, Nandi and Gamkhar, 2013). India, like many countries has identified this as an area in need of policy reform (Mohan, 2008). Mohan (2008) outlines that the reform process taken through the Jawharlal Nehru National Urban Renewal Mission (JNNURM) specifically targets the improved integration of land use and transportation planning. Concerns remain whether the reforms will lead to better integration between land use and planning, and more satisfactory outcomes for urban transportation in India (Nandi and Gamkhar, 2013).

Arguably, the segregation of land use and transport planning provides one of the most significant challenges to the development of effective transport solutions. Of particular concern is how important the integration of these appear to be for multimodal transport and successful TOD. Given that concern, it would be expected that urban administration in Hyderabad would suffer from the same malaise in their approach to planning. It is therefore imperative to highlight this as an important aspect of the research process, and how better integration of the two planning fields could contribute to more satisfactory transportation solutions in Hyderabad. Further, it is important to consider how coordination of the two practices can be achieved through collaboration of the planning
organisations responsible for the two fields. Given that consideration, the following section reviews the different elements of coordination and governance arrangements in planning.

**Coordination and Governance**

The governance of urban areas is widely agreed to be a crucial part of the successful management of urban areas, and the delivery of public services (Gerometta et al., 2005, Harpham and Boateng, 1997, Legacy et al., 2012, Kennedy et al., 2005). Indeed, of the ‘four pillars’ identified as being crucial in sustainable urban transport, Kennedy et al. (2005) suggested that paramount above adequate finance, infrastructure, and urban planning was the effective governance of public transport.

Given the importance of effective governance, it is then important to identify what governance itself involves. A suitable definition of the process of governance has been provided by the United Nations Development Programme:

> The exercise of economic, political, and administrative authority to manage a country’s affairs at all levels. It comprises mechanisms, processes, and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations, and mediate their differences (United Nations Development Programme, 1997, p.2).

In addition to governance, exists the notion of ‘good governance’. Panday and Jamil (2011) suggest good governance is essential for the successful implementation of policies. They further propose that a strong and effective level of urban governance leads to the better production and fulfilment of urban policies. Good governance can be considered to be:

> …epitomized by predictable, open and enlightened policy making; a bureaucracy imbued with a professional ethos; an executive arm of government accountable for its actions; and a strong civil society participating in public affairs; and all behaving under the rule of law. (World Bank, 1994, p.7)
There appear to be many characteristics of an idealised good governance process. While dispute exists surrounding some of the dimensions of the concept, there are commonalities found throughout prior research. Harpham and Boateng (1997) summarise the common themes which have been prevalent, indicated in table 2.

Table 2. Components of governance as highlighted by various authors. Source: Harpham and Boateng (1997).

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<td>3. Legal Framework</td>
<td>3. Competence to form policies and deliver services</td>
<td>3. Accountability</td>
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<td>6. Human Rights</td>
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Table 2 demonstrates the significant conceptual ambiguity regarding what comprises good governance, and the lack of a clear common ground regarding the concept. Despite there being a number of elements which theorists hold in common, there is little unity as to whether these aspects form a part of good governance as a whole. Despite these differences there is a tendency in wider theory to focus on the characteristics of what constitutes ‘poor governance’ as a means to arrive at examples of ‘good governance’.

One of the commonly discussed features of governance in relation to urban areas, is the process of organisational cooperation and integration (Panday, 2006, Panday and Jamil,
Theorists on organisational cooperation seem to argue three distinct features of inadequate coordination and integration. First, inadequate implementation of urban policies. Second, failure to deliver urban projects on deadline, on cost, and without duplication. Thirdly, urbanites burdened with insufficient, inadequate, ineffective and inefficient services which hamper their day to day lives.

The causes of inadequate coordination can be numerous, although Harpham and Boateng (1997, p.156) suggest that:

Issues between municipal governments, on the one hand, and special government bodies, various development authorities and special purpose authorities, on the other hand, stem from the former being elected bodies, while the latter are government agencies whose nature of operation and system for reporting decisions are different.

Harpham and Boateng (1997) arguably suggest that urban policy and decision makers are often established with competing goals and agendas, which could have serious implications on their interactions and therefore the way urban spaces are governed.

The importance of coordination is further promoted by Christensen and Laegreid (2008) who suggest an organisation’s ability to coordinate and integrate with others around it provides a key point of analysis. They indicate it provides a means of analysing and describing an organisation’s function, and the way that particular organisations are structured. They further argue that coordination helps to target resources, expertise and experience which can mitigate many of the problems which occur during the implementation of urban services.

One of the common issues in urban coordination are the “mismatches, tensions and conflicts which exist with their [urban authorities’] roles and jurisdictions” (Gallez et al., 2010, p.11). The inadequate definition of specific roles for institutions, and overlaps in jurisdiction create and exacerbate issues of urban service provision to residents. Peters (1998) believes that good governance is likely to manifest in the form of interrelationships and policy networks between a number of actors. These actors are
commonly the bureaucracy, interest groups, business community and civil society. Therefore, to understand good governance, it is important to understand the processes and structures within those organisations, and how they relate to and interact with the groups who are peripheral to government agencies and organisations. It is clear that well defined roles and clarity in jurisdictional boundaries are likely to create far more effective levels of urban governance, and deliver more satisfactory and quality service outcomes for urban populations. Figure 10 highlights some of the key differences which can occur between a process which lacks coordination, and one where coordination is ‘sound’.

Good governance is clearly a crucial part of the planning process. Without it theorists suggest there is likely to be serious implications with the development and delivery of essential urban services. The literature arguably suggests that lack of coordination and cooperation between bureaucratic organisations, and their relationships with those outside of these organisations significantly hampers the effective and efficient planning

Figure 10. Contrast of Sound Coordination vs Lack of Coordination. Adapted from: Peters (1998).
of urban spaces. This poses concerns relating to the governance of urban space, and what effect this could potentially have on urban projects.

There appears to be significant concern for the governance of urban spaces worldwide. Of particular concern appears to be the relationships between urban bodies, and the effect these relationships have on their ability to successfully provide for ‘good governance’. If achieving ‘good governance’ is indeed such a difficult prospect, it would be expected that given the chaotic malaise of India’s planning and regulatory regimes, there would be difficulties in achieving good governance in India’s cities. Considering the HMR has to further balance not only governmental agencies, but special purpose and private entities in their governance arrangements, concerns arise regarding the ability of these agencies to successfully provide for ‘good governance’ in their planning of the Metro Rail project.

One of the key aspects of the good governance process is also the role of the public in the overall governance of urban space. Therefore, the following section will highlight the historic and contemporary debates surrounding public involvement in the decision-making process, and the problematic nature of this.

**Public Participation**

Public participation and democratic decision-making in planning has been a topic of interest to theorists for many years. Of widespread note in early studies regarding planning decision-making was the work of Arnstein (1969). Arnstein is known widely for her proposal of the ‘ladder of citizen participation’ (figure 11) which evaluated civic participation in the decision-making process.

Arnstein highlighted that in order for decision-making to be truly representative of the public opinion and need, a widespread redistribution of power is required. This requires the decision-making system to shift from a top-down one led by bureaucratic elites and governments, to a system where control and decision-making is undertaken in partnership with citizens, or even solely by citizens.

There has, however, been an evolution in thinking surrounding this concept. Building
pon the concept of Arnsteins ‘ladder’, Silverman (2005) suggests that a need exists to understand power relationships and certain groups positionality within participatory processes. Silverman believes that decision-making power and involvement lies between grassroots participation and instrumental participation in the process. Further, different groups within society have varying involvement and access to the participatory process, and Arnsteins ladder doesn’t indicate this fully. Fung (2006) progresses this, by suggesting that there are three integral questions to public participatory processes: First, who participates in the process? Second, how do participants exchange information and make decisions, or how are the public involved? Third, what are the links between discussions, and the policy or public action, or what is the extent of authority afforded the public? These considerations highlight the key components and train of thought when discussing public participation more broadly.
Another key element of Arnstein’s ladder is the degree to which public participation is valued or taken seriously. Booth and Richardson (2001, p.147) highlight this:

Is it an honest attempt to open up the policy process, so that affected communities have a say in local transport decisions, and thus facilitate a genuine exchange of ideas and information; or is it more an attempt to win public support for political decisions which have already been made?

Therefore it is important to question not only is there any public participation taking place, but is that public participation meaningful? And are there hidden agendas to
engage the community to create support, without paying any due to the needs, opinions and perspectives of the community.

Public participation in the modern planning regime has come about through the work of theorists such as Arnstein (1969) and is now widely accepted as a part of global best practice planning. Gil et al. (2011) believe that public participation is only occurring when there is civic involvement in decision-making processes, which could conceivably affect policy decisions, and influence the planning choices being made. Bickerstaff et al. (2002) suggest that there are six guiding principles which should be inherent within public participation. They are; inclusiveness of the public, openness and transparency during the process, ongoing interaction with the community, continuity throughout the process, including participation at an early stage of decision-making, and utilising the feedback gained from participants. Bickerstaff et al. (2002) suggest that these principles should be inherent within a decision-making process which meaningfully involves the public. With the inclusion of these principles, the public are more likely to have meaningful input to the process, and the outcome is more likely to represent the wider public’s needs, desires and aspirations.

Much has been said regarding the value of public inclusivity in the decision-making process. Long term studies have shown that meaningful deliberation between decision-making authorities, the public and other relevant stakeholders have numerous benefits for all parties (Bai et al., 2010). Public participation advances a number of purposes, but perhaps most crucially can address failures in the conventional governance of space, and improve governance arrangements (Fung, 2006).

Transport planning, in many ways more than other sub-disciplines of planning, has much to gain from public participation (de Luca, 2014). Inclusion of the public early in the decision-making process can significantly assist the planning process (Booth and Richardson, 2001). When decision makers consider the needs, opinions and desires of the public early in the planning process, a wider range of possible solutions is commonly developed (de Luca, 2014, Booth and Richardson, 2001, Fung, 2006, Gil et al., 2011). Further, local communities have a key role in alerting authorities to potential challenges in the planning process saving decision makers time, money and resources later in the process. Perhaps most importantly, if the public feel they have been
acknowledged and their needs incorporated into decision-making, they are more likely to identify with the chosen solution (Gil et al., 2011). Moreover, it is more likely that the travel behaviours of citizens will change if communities feel as though they are a part of the solution (de Luca, 2014).

However, in relation to the wider planning discipline, transportation concerns have historically ignored public participation (Booth and Richardson, 2001, de Luca, 2014, Gil et al., 2011). In fact, as Gil et al. (2011) emphasise, transportation planning has been perceived as an elitist discipline, with the planner as expert, and the public with little to offer. Booth and Richardson (2001) suggest that public participation has typically been minimal where authorities have controlled debate and most critical decisions have been made behind closed doors. This has been characterised as a “decide, announce and defend” regime of decision-making (Bickerstaff et al., 2002, p.67).

Booth and Richardson (2001) suggest three broad barriers to public participation in contemporary transport planning. They indicate that the organisational culture of the discipline is a top down one; a one way process driven by experts. Another aspect, is that political culture holds that the political elite are the democratically elected decision makers, therefore representing the voice of the public. This instils a sense that public involvement is not needed, because the public have elected politicians to make their choices for them. However, within this a disparity exists in the relationships between elected officials and planners. The technocratic approach which planners have to solving transportation solutions, are often combated with the alternative ideologies or agendas which political regimes may have for urban development. Lastly, transport planning is guilty of operating in a vacuum where relationships and linkages to other disciplines are ignored. These barriers, Booth and Richardson (2001) believe, are common throughout transport planning to differing degrees with regard to context.

While historically there have been considerable constraints to the role of public participation in transport planning, there are indications of improvement. Gil et al. (2011) indicate that there has been a shift towards more inclusive and participatory processes, although this still trails other disciplines. The evidence within the literature suggests that public participation in transportation planning decision-making lags well behind where it should be.
The discussions surrounding public participation comprise an important element of this contemporary research. Given the belief of theorists that public involvement comprises such a crucial aspect of the planning process. The degrees of public participation, and the tendency of transport planning to exclude the public are all important considerations when evaluating the successful nature of the HMR. Further, given the theses concern with the role of the public in this project, degrees of involvement are integral to discussions surrounding the benefits or otherwise of the project to Hyderabadi.

**Urban Policy Transfer**

The concept of ‘policy transfer’, otherwise referred to as policy diffusion, policy learning, lesson drawing or policy convergence (Evans and Davies, 1999), has increasingly been discussed in academic literature, with reference to its institutional and sociological impacts (Ison et al., 2011). Dolowitz and Marsh (1996) provide a widely accepted and referenced definition of the term:

…a process in which knowledge about policies, administrative arrangements and institutions in one time and/or place is used in the development of policies, administrative arrangements and institutions in another time and/or place. (Dolowitz and Marsh, 1996, p.344)

Marsden and Stead (2011) put forward a framework for policy transfer, depicted in figure 12. This framework helps to evaluate the different components of policy transfer, and what aspects should be considered when looking at examples of the process. It also draws attention to the fact that the transfer of various policies can be forced on the recipient policy maker, taken aboard on a completely voluntary basis, or something in between.
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<th>Degrees of transfer</th>
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<td>Conferences, Meetings</td>
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- **International pressures** (image, consensus, and perceptions)
- **Externalities**
- **Conditionality** (loans, business activities, and obligations)
- **Elected officials**
- **Bureaucrats**
- **Civil servants**
- **Pressure groups**
- **Political parties**
- **Policy entrepreneurs**
- **Experts**
- **Consultants**
- **Think Tanks**
- **Transnational corporations**
- **Supranational institutions**
- **Policies** (goals, context, instruments)
- **Programs**
- **Institutions**
- **Ideologies**
- **Attitudes/Cultural values**
- **Negative lessons**
- **Internal**
- **Global**
- **State governments**
- **City governments**
- **Regional/local governments**
- **International organizations**

**Figure 12. Policy Transfer Framework. Source: Marsden and Stead (2011, p.494).**
They believe that rather than using policy transfer as a means to identify a range of possible options, alternatives and eventual solutions, it is increasingly used to support a decision which has already been made. Unsurprisingly, the specifics of the local context are often neglected. More than an evaluative tool, work such as this highlights the key components of policy transfer across time and geographical context.

Understanding these aspects of the process is important so as to understand the overall process of policy transfer, and how this can affect and alter decision-making processes in urban transport contexts. In terms of this thesis, the framework put forward for understanding policy transfer on both an intra and inter-national level stands to highlight the implications (if any) of this on the planning process, and what considerations are key to the policy transfer in this particular example. In doing so, integration of these approaches will assist in an understanding of how imported processes and policies become embedded in planning for the HMR, and the significance of these in the outcomes for the project, the agencies involved, and the public.

The importance of policy transfer to considerations of how the Metro Rail has been planned is further enhanced through the desire of Hyderabad to become a ‘world city’. As the following section will highlight, becoming a world city relies heavily on unifying the infrastructural and regulatory systems in place across the world’s major economic hubs. Policy transfer therefore plays an important role in facilitating the growth of a world city, and this is particularly key given the world city vision in Hyderabad.

**World City Policy**

As emphasised, policy transfer is becoming increasingly prevalent as cities strive to replicate successful policies and developments from around the world. A large driver for this policy transfer is to become attractive to global markets, therefore being able to deliver world class infrastructure. This concept is known as ‘world city theory’ (Taylor et al., 2002). This section will outline the development of thinking surrounding world cities, and how this theory improves our understanding of the planning and decision-making regime in Hyderabad.
Friedmann (1986) was among the first to begin discussing the impact of globalisation on the urban economy and development. He noted that there were increasing linkages between the process of urbanisation, globalisation and the flows of capital between the world’s key cities. This discussion has contributed and formed the understanding of what are today referred to as ‘world’ or ‘global’ cities. Friedmann argued that this process was leading to a spatial division in labour across the globe, with a number of key urban nodes being developed. Essentially, Friedmann states that the development of cities will be increasingly focussed on being hubs for market capitalism and the production of goods and services.

In the last decade much of the literature has focussed largely on the economic development capabilities of becoming a world city (Sassen, 2005), particularly the role of global cities as ‘global service centres’ and how this contributes to a particular form of urban development (Taylor et al., 2002). The primary driver for this transformation is the role of these cities in providing a seamless network to host global corporations, whether you are in New York, or New Delhi. To attract and retain the world’s top firms, cities must have advanced services and infrastructure (Nastar, 2014), and a great deal of emphasis has been placed on how cities can accomplish this.

While there are clearly significant advantages for burgeoning world cities in attracting capital investment and economic development, it has also been noted that the expansion of urban economic potential often isolates and excludes a substantial and important part of cities who cannot provide and contribute to the world city dynamic, which can have serious implications for urban (in)equality (Taylor et al., 2002). For cities of the global South, replicating the western examples such as London and New York is problematic, particularly given the significantly advanced levels of investment and infrastructure which these city’s possess. Nastar (2014) also expresses concern that world city aspirations lead to changes in urban governance arrangements, and that these changes are contributing to urban planning which does not benefit the urban poor.

The concept of the world city therefore plays a key role in understanding the contemporary transformation of Hyderabad, and the aspirations to transform the city is likely to have impacts on planning decisions and middle to low income communities within the city. One of the most significant requirements for the transition to a world
city is through the provision of ‘world class’ infrastructure. There are likely to be links between the world city image, the development of the HMR, and the planning decisions behind it. In current economic discourse in India, and therefore Hyderabad, this is best achieved through via PPP mode. Given this, the following section outlines the importance of PPP to the project, and the wider thinking surrounding its role in the provision of urban transport infrastructure.

2.2 Public Private Partnerships (PPP) in Public Transport

PPP’s are important to understand given that the HMR constitutes the largest transport infrastructure PPP ever undertaken. It is therefore imperative to understand the theory behind electing to utilise this option, and how previous experience with them in transport, may shape the HMR. PPPs are a form of private and public sector cooperation that has seen rapid worldwide growth in the last 20 years (Tsamboulas et al., 2013). The mode gained popularity throughout the 1990s and been widely accepted into contemporary project financing.

Definition & Types of PPP

It is widely remarked that there is no clear definition of PPP (Grimsey and Lewis, 2005, Grimsey and Lewis, 2002, Gordon, 2012, Carmona, 2010). Some argue this is due to global variance, and little consistency in application or sophistication (Carmona, 2010). However, despite the differences in the concepts application, the definition put forward by the World Bank (2012), provides a simple and helpful identification of what the concept entails:

(Private-Private Partnerships) are a long term contract between a private party and a government agency, for providing a public asset or service, in which the private party bears significant risk and management responsibility” World Bank (2012, p.11)

PPPs contain a number of different configurations. These are commonly a combination of the following elements; financing, design, operation and build. Concessions are often used to determine finite timeframes for infrastructure developments, before the return of
the project to public sector control (Bray and Sayeg, 2013, Gordon, 2012). Bray and Sayeg (2013) stress the importance of a carefully developed and managed concession so that the outcomes desired by the public sector can be realised, and that the planning process is incorporated throughout the duration of the project.

The HMR is an example of a design, build, finance, operate and transfer project. This allows the private partner (L&T), to assume the responsibility of designing, building, financing, and operating the HMR before transferring the project back to GoAP after an agreed upon timeframe. It is important to understand the different components of a PPP arrangement so as to fully appreciate the procedural aspect of the HMR project, and the potential implications from the chosen PPP approach.

Despite the lack of a formally adopted definition for PPPS, there is some consensus surrounding how the process has developed globally. The following section will overview the evolution of the PPP concept and process, and how contemporary PPP projects commonly develop.

**Evolution of PPPs**

Often, discussions of PPPs assume that there are three distinct phases of PPP maturity, and that countries can be grouped according to their activity and sophistication (Kateja, 2012). Deloitte (2011) reinforce this and represent this maturity as per figure 13 overleaf.
Figure 13 shows that according to Deloitte (2011), India is currently in Phase 1 of PPP maturity. This phase is characterised by the following aspects; establishment of a policy and legislative framework, central PPP policy unit to guide implementation of projects, development of deal structures for projects, getting transactions right and developing public sector comparator models, beginning to build a marketplace for PPPs, and application of early lessons from transport to other sectors. Deloitte (2011) suggests that countries in the earlier phases have much to learn from more advanced countries and that the mistakes made by the early pioneers of PPP projects will ensure that similar mistakes are not likely to be made by those just beginning to utilise PPPs.

PPP Outcomes

PPPs are often utilised in situations where governments do not have the financial capabilities to deliver infrastructure provision and services to the public. Alternatively they are used where utilising PPPs will provide better value for money, and better services through the private sector, than equivalent public sector investment (Grimsey and Lewis, 2005). It is because of this, that the concept is being increasingly used in
developing countries in South America and Asia, where government expenditure on infrastructure cannot meet the infrastructural requirements of cities (Jain, 2003, Willoughby, 2013).

PPPs also provide an important risk mitigation strategy for governments. Advocates of using PPPs in transport believe that it secures a better quality service and infrastructure, for optimal cost and risk allocation (Roehrich et al., 2014). Indeed, Grimsey and Lewis (2005) highlight that the transfer of risk to the private sector means that projects are more likely to maximise efficiency, and achieve better outcomes in service provision. The removal of risk away from the public sector, has significant benefits for project outcomes. If the project is successful, governments achieve effective and efficient transport solutions, for minimal investment of the taxpayer money. If unsuccessful, the burden of failure lies in the private sector, and minimal public sector investment has been committed to such projects (Phang, 2007).

Both Willoughby (2013), and Bray and Sayeg (2013) highlight that PPPs in many developing countries have been able to ease the resource constraints of local authorities, and provide better quality infrastructure services, than would have been the case if undertaken solely through public sector funding. However, given the preconditions in many developing countries, the use of PPPs can cause a number of issues. One of these issues, is that PPP significantly magnifies governance problems in the developing world. Phang (2007) feels governments have little understanding of how to manage PPP projects, are unprepared for the process and resources they involve, and when corruption is present within the system, can lead to undesirable consequences for the particular project at hand. An assertion supported by Gordon (2012) who suggests that relative inexperience of governments can lead to the private sector taking undue advantage in PPP projects. This is further reinforced through the findings of Kah (2001) who found that privatisation of public transport in Senegal and Gambia was highly disorganised given the issues with coordination of governance agencies, and without an adequate regulatory framework. These considerations are therefore all integral to the investigation of the planning and governance capabilities in Hyderabad, and the impacts these may have on the development of the HMR and the city itself.
PPPs for Urban Rail Transport

PPPs for urban rail are unique and operate differently from other common transport PPPs. Successful private sector involvement in urban rail projects is rare, and are subject to a number of issues. This has resulted in less utilisation of the mode than in other transport systems such as bus transport or roading (Bray and Sayeg, 2013). Of primary interest is that urban rail transit is a sector which has historically been unprofitable (Phang, 2007). It is therefore difficult or unlikely to attract private investment. Complicating this further, Phang (2007) indicates that there is increased complexity in maintaining successful coalitions, partnerships and agreement in urban rail transport, given the pressures on both the public and private sector to generate revenue.

Willoughby (2013) suggests that given the above, the risk allocated to private entities in rail based transport PPPs is much higher than in roading and bus. Therefore the private sector has to be willing to accept this increased risk. In order to mitigate the increased risk in rail based PPPs, the public sector often allocates real estate interests to the private party, therefore providing additional revenue and decreased risk (Willoughby, 2013). The private sector often places increased emphasis on the importance of real estate interests and the role this can play in generating revenue. This is exemplified by the example of urban rail in Hong Kong and Tokyo, which both generate over 50% return on investment from real estate and property transactions (Cervero, 2009). Cervero and Murakami (2008) indicate the approach in Hong Kong termed the ‘Rail and Property Program’, has allowed the rail system to be one of the global few which run at a profit.

This approach, however, requires a specific policy stance from governments, who must allow the private sector to pursue certain types of real estate development. There must be coordinated land use planning alongside the rail transportation infrastructure, to ensure suitable integration between the two (Willoughby, 2013, Bray and Sayeg, 2013). Further, Cervero (2009) outlines a number of crucial policy ‘levers’ which must be targeted, to ensure that rail based projects can facilitate revenue through real estate development. These are; permissive and incentive based zoning surrounding stations, co-financing e.g. the creation of benefit assessment districts to generate income from
land appreciation, the ability to target supportive infrastructure and public investments around station areas, and the ability to assemble and purchase land to support planned real estate ventures.

Given the above, it is expected that the nature of the current case study, which is being implemented under PPP could provide a point of contention. Further, considering that the HMR is the world’s largest PPP project ever undertaken, we could expect that the issues and concerns raised throughout the literature might be amplified. The expectation would be that there is contention surrounding the funding arrangements for the project, the risk associated with the project for both the private financier and the government, the development associated with the project, and the implications of this development. The next section demonstrates that the potential difficulties of implementing such a large project are further complicated by the governance issues of urban India.

2.3 Urban India

India has hugely diverse and complex cities, which have undergone dramatic urbanisation and change. The issues of urban development in the country are well documented, and the theory surrounding the planning system and its problems are as diverse as the issues themselves. This section of the literature review will examine the existing literature relating to urban India, and where the current research is related to these issues.

Urban Governance

As discussed previously in this chapter, one of the key concerns regarding urban areas, is how they are governed. India has complex governance arrangements crossing the municipal, state and federal levels, and the relationships which exist between planning authorities provides one of the key challenges to be investigated in this thesis.

Bhardwaj (1974) was early to indicate a drastic need for legislation which could overhaul planning and administrative system in urban areas, so that city growth was adequate. At this stage in India’s planning history, the strategic growth of India’s cities was impacted heavily by the multiplicity of agencies required for urban planning. This
in turn led to serious implications for the administrator, the executor and the planners themselves, as well as leading to a widening gap between the administration and the inhabitants of urban areas (Bhardwaj, 1974).

Governance in India has not followed the path of more developed countries (Chatterji, 2013). That is, Chatterji (2013) argues, that power over both urban governance and the urban economy has not rested at central or local levels, but with the state. Chatterji believes this has the potential to create inherent conflict given the political structure of the country. This has long been a concern with urban management and Bhardwaj (1974) highlighted that political concerns rather than civic ones dominate conversations surrounding urban development. Indeed, Chatterji (2013) explains that when rival political parties are in power at the state and municipal levels, serious issues with power relations and governance are evident.

One of the most widely criticised aspects of India’s municipal administration is the lack of coordination within the system. Among the critiques, Mehta (2010) explains that the planning of urban space is undertaken by a variety of bodies who are all responsible for different services. Mehta argues that this leads to significant issues in coordination, as urban administrative bodies simply do not have the resources to manage entire service networks. Policies targeted at reforming the administration of urban areas exist, although these have tended to be ineffective or compound the problem. As Toutain and Gopiprasad (2006) indicate, various reforms have led to increased intersection and overlap of jurisdiction, further compounding both the gaps in and overlaps of service provision and coordination.

With specific regard to transport, Pucher et al. (2005) emphasises that not only are there deficiencies in the coordination between relevant authorities, but that coordination between land use planning and transportation planning has been neglected. Agarwal (2006) contends that the current system of urban transport governance is historically based, without adapting to contemporary issues. Agarwal argues that there are far too many agencies dealing with far too many different aspects of urban transportation which results in little coordination between agencies and inadequate authority at the local level. This reinforces a top down management system with a reliance on national and local body support, which local bodies invariably do not receive (Agarwal, 2006).
Government policy guidance has repeatedly recommended that unified municipal transport authorities be created, to better integrate land use and transportation planning (Government of India, 2006, Government of India, 2011b). As it currently stands, it is widely thought that most agencies do not have an interest, let alone a role, in managing urban transport systems (Agarwal, 2006, Pucher, 2004). Agarwal (2006) speaks somewhat in defence of urban administrative bodies, however, believing they are overworked and under resourced, perceiving more immediate challenges.

**State of Urban Public Transport**

India’s public transport system has been widely criticised for its inefficiency (Pucher, 2004, Pucher et al., 2005, Pucher et al., 2007, Singh, 2005, Agarwal, 2006). Common complaints regarding the public transport in the country are; congestion, lack of safety, inadequate urban and transportation planning, overcrowding, and poor coordination between administrative bodies (Pucher, 2005). This has led to inefficiency and widespread implications for the socio-economic functionality and productivity of India’s cities.

India’s transport system is carrying growing volumes of passengers, through increasingly dense and congested urban areas (Pucher and Korattyswaroopam, 2004). The sprawl associated with poor planning regimes has led to difficulty in meeting public transport needs. The public transport service failure in urban India, has also led to rapid growth in private vehicle ownership, and an associated congestion of the roadways (Pucher and Korattyswaroopam, 2004). This has contributed to a stagnant system in which there is no modal diversification in public transport and a resulting overreliance on buses. In fact, Pucher and Korattyswaroopam (2004, p.5) report that over 90% of public transport demand in Indian cities is met by buses alone. Pucher et al. (2007, p.380) further highlight that since 1990 ownership of private vehicles in India has more than tripled. This has resulted in a roading network suffering from increasingly poor mobility.

The safety of India’s transportation network is another factor which has been widely criticised. Government of India (2003b) reported that yearly traffic statistics showed a staggering 80,000 fatalities. Pucher et al. (2007, p.381) determine that when controlling
for population, this represents an inexplicable tripling of yearly traffic fatalities in the period 1972-2002. Government of India (2004a) also reported 342,000 injuries throughout the same year, although Mohan (2001) claims that the figure is far higher than this. Mohan (2004) believes that there could be as many as 1.2 Million serious injuries, and 5.6 Million minor injuries. Commonly attributed factors for these issues include; the increased number of private vehicles on India’s roads leading to inadequate road supply, unsafe vehicles, irrational driving behaviour, the sharing of roads between motorized and non-motorized vehicles, and the overcrowding of vehicles and poor management of the traffic (Mohan, 2001, Pucher and Korattyswaroopam, 2004, Pucher et al., 2005, Singh, 2005, Pucher et al., 2007).

In addition to the unsafe roading and transport networks, are impacts on human health as a result of congestion. World Health Organisation (2000) statistics in relation to particulate matter show that India’s cities exceed maximum standards by three to four times, which represents a severe public health risk (Pucher et al., 2007). In addition, Pucher et al. (2007) report that almost every Indian city exceeds safe noise levels for human health, a combination of effects with serious implications on the health of urban dwellers.

The concerns highlighted demonstrate the significant challenge which presents itself to the planning regime in India. There are a plethora of complex issues which cannot be addressed by singular agencies or solutions. Considering this, the following section will outline the current state of the planning regime, and indicate how the current state of this regime perhaps contributes to the negative impacts outlined above.

**Planning Regime**

Indian cities are under constant development pressure. Given the social, political and economic drivers of urban development, planning in India is placed in an unenviable position. Perhaps the most significant pressure on Indian cities is that to attract investment, all cities are in constant competition to attract greater investment to spur growth. This pressure has led to serious spatial implications in the development of urban areas and the availability of land. Chatterji (2013) highlights that planning authorities are increasingly opening up peri-urban areas to development, because
commonly the core of Indian cities simply cannot handle the intensive development that is demanded. Not only does this lead to a rapid expansion of urban areas and serious sprawl, but creates further complications in the provision of basic services, particularly transportation networks.

This dramatic growth, although somewhat in planners’ control, consistently outstrips the forecast development for urban areas, and planners consistently underestimate the impacts, and infrastructural requirements of growth (Roy, 2009). Mohan (2006) believes the solution to the problem is to alter the paradigm from which it is being approached. To Mohan, the pressing need is to halt the sprawl of Indian cities and so argues that rather than take a policy and planning approach to stifle growth, India must simply begin adequately preparing for this.

One way that India is approaching this is through the increased development of urban infrastructure. As previously highlighted, PPPs currently provide the means to increase the rate of production for urban infrastructure. Given this, the following section outlines the current state of PPPs in India and how they are contributing to alleviation of urban issues.

**Public Private Partnerships (PPP’s) in India**

It has been widely remarked upon that up until this point, PPP projects have thus far had very little success in India (Mohan, 2006, Mehta, 2010, Rastogi, 2006, Agarwal, 2006). However, this has not stopped the Indian government advocating for the method as the primary driver of urban infrastructure projects. This stance is supported by the World Bank (2002) who strongly advocated for increased use of PPPs in infrastructure development, and particularly in public transport projects. World Bank (2002) suggested that publicly owned infrastructure in India is highly inefficient and unprofitable, and a move toward PPPs would effect a change in this area.

JN-NURM has affected a distinct policy approach toward improvement of urban areas, through encouraging private investment in infrastructure. A number of methods have been utilised to incentivise this, primarily the provision of ‘viability gap funding’ by the central government to meet the funding shortfalls of PPP (Mehta, 2010). This is
provided on the basis of predetermined and agreed upon factors between the relevant central and state government agencies, and tend to focus on the timescales and milestones of development (Rastogi, 2006). It is a widely held view that Indian and state governments, simply do not have the financial capabilities to implement the required infrastructural developments throughout urban India (Mehta, 2010, Rastogi, 2006, Toutain and Gopiprasad, 2006, Agarwal, 2006, Pucher and Korattyswaroopam, 2004, Pucher et al., 2007). Complicating this, provisions in the 74th amendment to the Indian constitution placed more responsibility on urban local bodies in terms of development of infrastructure, without any further assistance in funding these projects (Singh, 2005). This played a significant role in both the poor infrastructural development in India, and the current stance toward privately financed infrastructure projects (Mehta, 2010). Arguably, unconstrained growth appears to have placed excessive financial burden on urban administrations, so that infrastructural advances are simply unattainable without outside investment. Certainly the above discussion would suggest that government promotion of PPPs appear to offer an opportunity to enhance both the number, and quality of, projects being undertaken.

A further concern in India relates to issues in distribution of transport projects. Given the previously stated importance of generating positive revenue for private parties, PPPs provide a contradiction in terms. On one hand, public transport is intended to serve the bulk of the population, and improve urban mobility. On the other, the private partner is driven by return on investment. This results in a system which raises significant questions between the costs and benefits of PPPs for urban dwellers, and who bears the ongoing costs associated with transport infrastructure PPPs. In considering this issue, the following section outlines current theory relating to urban transport and the poor in India.

**Transportation and the Urban Poor**

Indian cities and their residents have significant socio-economic issues. As Government of India (2004b, 2002) have reported, over a quarter of India’s urban population fall below the global poverty line. The urban poor are also disproportionately affected by urban issues. For example, they generally suffer from increased traffic dangers, noise and air pollution, on a far greater scale than the more affluent members of society.
In addition, ongoing sprawl ensures they are increasingly forced to the urban periphery, lengthening their commute to find employment, and putting further strain on already low household incomes (Agarwal, 2006, Pucher et al., 2007, Vasconcellos, 2001).

In fact, Peng (2005) estimates that the average round trip bus fare costs an Indian resident 30-40% of their daily government assistance. Mohan (2001) and Badami et al. (2007) both indicate that India’s rail transit and bus fares are typically rising, becoming ever more unaffordable for the urban lower class. Pucher et al. (2007) believe that paratransit is increasingly important in the livelihoods of the urban poor, in travelling through dense cities. However, they highlight that this mode of transport is incredibly unsafe, and in competition with other transport modes often owned or supported by governments. Low and Banerjee-Guha (2003) believe that this results in a policy shift actively discouraging modes of paratransit, and instead taking a policy direction which promotes private motorisation, as a mode of both stimulating economic growth, and catering to the affluent desire for private vehicle ownership.

These findings are significant given the large number of middle to lower classes who are expected to be served by urban transport in India, and specifically in this case the HMR. If concerns relating to the costs of urban transport, and the impacts of these costs on the urban poor are correct, it could be assumed that the HMR would be unaffordable for many urbanites in Hyderabad. Further, given the significant reliance on paratransit throughout India, there is an added focus in this thesis regarding the impact which the HMR will have on paratransit, and the associated effects on livelihoods. There are then a large number of issues which are to be addressed by the current research in relation to the relationship between urban transport infrastructure and the urban poor in India.

2.4 Conclusion

The issues relating to urban planning and PPP infrastructure development are key in understanding the contemporary issues being experienced in India’s cities. The complexity of their development, ongoing maintenance and planning is clear to see, and they fit within a wider narrative of global change which further complicates their status.
The key topics outlined in this literature review stand to highlight that cities globally are inherently complicated entities, and understanding the processes within them is by no means straightforward. However, the key topics outlined in this chapter provide a broad overview of how cities generally, and in India, have developed, and how they approach urban development, and urban transport in contemporary planning. The chapter contextualises urban process, and specifically outlines the pertinent issues in contemporary India, which are of key importance to this thesis. Understanding the importance of the findings in this research is highly dependent on the understanding of the theory and overviews contained within this literature review.

The review has attempted to describe that globally, cities are highly complex entities, and planning them is equally so. There are wide ranging issues in cities, and the approaches to dealing with these issues grows constantly. One of the key issues inherent in cities is how to transport their populations, which are increasing on a daily basis. Transportation provides the means for urbanites to move around their cities, interact and get from ‘A to B’. Transit systems are perhaps the most integral of urban infrastructure, and the means of implementing transit systems are increasingly difficult. Given this consideration, it is then no surprise that planning these systems has become increasingly difficult, and subject to scrutiny.

Existing within complex global processes, it is unsurprising that theory paints a chaotic picture of India’s urban spaces. Planning has seemingly been a reactive process to development which has taken place at unforeseen and unprepared for pace. Therefore, this thesis is important in reviewing how contemporary Indian cities such as Hyderabad attempt to solve the issues outlined throughout this chapter. This research aims to draw together the theory contained in this chapter, and analyse how these complex and multiple processes come together in the HMR project. In considering this, it is important to understand the planning regime, and methods through which planning is undertaken in the specific case study of Hyderabad. Therefore, the following section undertakes a review of this contextual planning regime, as well as discussing in more depth the local and regional information relevant to the thesis and its argument.
Chapter Three: Planning, Legislative & Local Context

In the previous chapter, key concepts and theories of importance to this thesis were overviewed. How urban processes have shaped cities, and the impact that planning has on cities are crucial in forming an understanding of how the current case study contributes to wider knowledge. Given the literature reviews content, with particular relevance to urban planning, and the state of urban India, this chapter looks to contextualise that information in the case study locale. Therefore, what follows will highlight the more specific context of Hyderabad, and also the legislative and planning contexts within which this research exists. Both the literature review and this chapter contextualise the current research within wider academic understanding, and the specific geographical and planning systems within which the HMR operates. These chapters form a crucial basis for understanding the research approach, and its findings, which will form the remainder of this thesis.

Given the complex organisational structure of planning in the local context, this chapter serves to outline the key planning and administrative organisations in the development of the HMR, and how these function. Further, the context will place these organisations and the HMR within the legislative context under which it operates both at central government and state-level.

3.1 Local Context

Having previously introduced the institutional and regulatory setting of the research, this section will overview the demographics, geography, socio-cultural and political context of the case study, as well as providing an overview of the current transportation issues which it faces.
Geography & Location

Andhra Pradesh is a highly diverse state, encompassing the majority of the eastern Deccan plateau and the plains of the Eastern Ghats, and stretching to coastal Andhra Pradesh in the east. The state is India’s fourth largest by area with 275,045km², and fifth by population with 86,655,533 people.

Hyderabad is located in the northern part of the Deccan Plateau, in the north western part of Andhra Pradesh state (see figure 14). Located on the banks of the Musi River,
divides the new and old parts of Hyderabad, the city is located at an average altitude of
536 metres above sea level and has extremely unique terrain, owing largely to its
position on the plateau. Greater Hyderabad covers 650km² making it the 5th largest city
in India (Greater Hyderabad Municipal Corporation, 2013).

Political Context

As outlined previously, the GoAP existed during the development of the HMR and are
most pertinent to the results and discussion undertaken in this thesis. The government is
democratically elected and comprised 175 members of the assembly, and 56 members
of the legislative council, with the 5 year governmental term concluding in the
bifurcation of Andhra Pradesh in June 2014. GoAPs roles and responsibilities relevant
to the content of this thesis, have been outlined previously in this chapter.

The Government of Telangana was formed in July 2014 as a result of the Andhra
Pradesh State Reorganisation Act 2014. This legislative assembly results in the
appointment of a Governor of Telangana, who is the head of state. However, the
running of the government is largely undertaken by the Chief Minister. Kalvakuntla
Chandrashekar Rao was elected as the first Chief Minister of Telangana. Rao has
significant power in decision-making over the implementation and future direction of
the HMR as will be outlined further in the results and conclusion of this thesis.

Economy

Hyderabad has a lively economy, spurred by the development of its’ IT sector. As of
2010, Hyderabad generated roughly NZ$15.5bn of revenue for the economy, as well as
contributing a third of Andhra Pradesh tax revenues, an overall GDP of NZ$77bn, and
with per capita income standing at NZ$950 per annum (Massachusetts Institute of
Technology, 2010). Considering GDP, Hyderabad is the 4th highest earning city in
India, and 93rd highest earning city in the world (Massachusetts Institute of Technology,
2010).

As stated previously, the IT sector in Hyderabad has developed significantly in the last
decade and in 2008-09 contributed NZ$6bn worth of exports for the economy, and is
home to more than 1300 IT firms, including significant international companies such as Microsoft, Oracle and Google (Massachusetts Institute of Technology, 2010).

**Population & Culture**

The population of the Hyderabad urban agglomeration as per the 2011 Indian Census, stood at 7,749,334 (Government of India, 2011a) making it the sixth largest in India. This signals a dramatic 87% increase from the results published in 2003, where the census indicated a population of 3,637,483 (Government of India, 2003a). This can be attributed, in a large part, to the expansion of the Hyderabad municipality in 2007, although statistics on migration suggest this process played some part (Centre for Good Governance, 2008).

Hyderabad has a sex ratio of 945 females per 1000 males, slightly higher than the national average of 926 (Government of India, 2011a). The literacy level in Hyderabad is better than the national average, standing at 82.96% compared to the all India average of 74.04%. Literacy levels in males are higher than that of women with a level of 85.96% compared to females at 79.79% (Government of India, 2011a). These figures also represent a much higher figure than state level statistics, with Andhra Pradesh having only a 67.66% literacy rate, due largely to its predominantly rural nature (Henry, 2011).

Hyderabad has a high level of ethnic, cultural and religious diversity as a result of the city’s rich history. The people of the city are named Hyderabadi, and speak predominantly Telugu and Urdu, which are the official languages. The religious composition of the city is predominantly Hindu (69%) with a strong Muslim presence (27%) with the latter predominantly settled in the old city. Christians (3.5%), Sikhs (0.2%), Buddhists (0.04%) and Jains (0.04%) comprise the remainder of the religious makeup (Government of India, 2011a).

**Transportation Issues**

There is widespread recognition of the transportation issues in Hyderabad, and these have been outlined extensively throughout the literature review. Hyderabad’s primary
mode of travel is the private vehicle, with massive numbers of both cars and auto rickshaws currently occupying city streets. Greater Hyderabad Municipal Corporation (2006) indicated that around 50% of total vehicular traffic is comprised of private two or four wheeled vehicles, and only 42% of the modal share being met by state bus services.

With the ever increasing number of private vehicles, one of the primary concerns for authorities and citizens alike is safety. Hyderabad has a large number of injuries and deaths on its roads each year, with the statistics in relation to this remaining steady in recent years. The primary cause of accidents on Hyderabad’s roads is caused by private vehicles, as outlined in figure 15. Therefore the reduction of private vehicle numbers, and increased safety of the transit system is a vital part of its’ future development strategy (Greater Hyderabad Municipal Corporation, 2006).


Table 3 shows the figures for injuries and deaths on the roads of Hyderabad in recent years. Over 9000 people have been injured or killed in Hyderabad since the start of
2011. This is a figure which has caused extensive concern for both local and state authorities, and provides a startling backdrop to the need for change in the existing transportation system.


<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014 (so far)</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Injured</td>
<td>2528</td>
<td>2473</td>
<td>2294</td>
<td>404</td>
<td>7699</td>
</tr>
<tr>
<td>Deaths</td>
<td>441</td>
<td>463</td>
<td>447</td>
<td>47</td>
<td>1398</td>
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<tr>
<td>Total</td>
<td>2651</td>
<td>2576</td>
<td>2409</td>
<td>419</td>
<td>9097</td>
</tr>
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</table>

3.2 Hyderabad’s Planning Authorities

The planning system in Hyderabad involves numerous agencies with various functions in respect of both land use and transportation planning. This section will outline those agencies and their roles in the development of the HMR. The section will begin by overviewing the development of the planning framework in Hyderabad, and how this has led to the current management approach.

Alongside the development of Hyderabad and its municipalities, has been a parallel transformation of the planning system. It is important to outline the evolution of the authorities’ and their roles within the planning system over this period, so as to understand the roles each play in the modern planning environment. Therefore figure 16 below overviews some of the key developments in the planned history of Hyderabad, and the following section outlines the more recent key developments pertinent to this research.
### 1869-1950

- Hyderabad and Chaderghat Municipal Boards Established by Prime Minister of Hyderabad State
- Department of Municipal and Road Maintenance established, responsible for municipal affairs and roading network
- 1933: Hyderabad Municipal Corporation established; facilitating more focused planning and development
- 1934: Hyderabad Municipal Board; tasked with master planning for the wider municipal area.
- 1934: Nizam State Rail and Road Transport Department established; begins development of rail, road and public transport networks.

### 1950-1975

- 1950: Metropolitan Corporation of Hyderabad, Secunderabad Corporation and Hyderabad Corporation created and assume all responsibilities. Former are regulatory authorities, while the latter takes over master planning
- 1955: The above merge to create Hyderabad Metropolitan Corporation which assumes all roles and responsibilities
- 1956: Formation of Andhra Pradesh state and the GoAP. Creation of the APSRTC to administer and maintain road and key transport networks, particular bus public transport.

### 1975-2007

- 1975: The Hyderabad Metropolitan Area is redefined by the GoAP. In order to develop new planning regime, the Hyderabad Urban Development Authority is created.
- The role of the development authority was to revise the master planning approach for the metropolitan area, and act as a regulatory, development and coordinating body with other public agencies
- Jurisdiction of Authority was a sizeable 1348km², which encompassed 173km² already under the jurisdiction of the metropolitan corporation
- Rapid evolution in planned development including higher quality transport infrastructure
- Authority developed two master plans, and twenty zonal development plans for the wider metropolitan area, which form the basis of contemporary land use in the city

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**Figure 16.** Key developments to Hyderabad's planning system, 1869-2007. Adapted from: Greater Hyderabad Municipal Corporation (2013), Andhra Pradesh State Road Transport Company (2012) and Hyderabad Metropolitan Development Authority (2013a).

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### 2007 to Today

Hyderabad’s land use and planning system had remained relatively unchanged for the preceding 30 years before large-scale reform occurred in 2007. At this time, the amalgamation of 12 municipalities and 8 local government institutions (called gram panchayats) resulted in the Hyderabad Metropolitan Corporation becoming the Greater Hyderabad Municipal Corporation (GHMC), which exists to this day (Greater
Hyderabad Municipal Corporation, 2013). GHMCs jurisdiction became separated into five geographical zones which remain currently. These are the northern, eastern, western, southern and central zones, as shown in figure 17. The Corporation is headed by a commissioner, with each of the above zones having an individual zonal commissioner. The Corporation includes a dedicated Town Planning wing with its own chief and additional commissioners (Greater Hyderabad Municipal Corporation, 2013).

![Figure 17. GHMC Jurisdictional Zones. Source: Wikitravel Commons (2012).](image)

The transformation of the old Metropolitan Corporation into the new iteration of the organisation coincided with the dissolution of the local urban development authority. In 2008, the authority was incorporated with the Hyderabad Airport and Cyberabad Development Authorities, as well as the Buddha Poornima Project Authority, who were responsible for restoration of the Hussain Sagar Lake (Hyderabad Metropolitan Development Authority, 2013a). This process gave rise to the Hyderabad Metropolitan Development Authority (HMDA), which absorbed the roles of the aforementioned...
agencies. The area inherited by the agency was sizeable, with a total jurisdictional area of 7,100km². The area includes the area under the purview of GHMC, resulting in some jurisdictional overlap.

The evolution of Hyderabad’s planning system over the above periods highlights a vast shift in the way the city is planned and developed. It involves a wide range of different actors, including bureaucratic and technocratic interests and the system is further complicated in this case study, due to the involvement of additional parties present in the development of the HMR, specifically HMRL and L&T. The roles of the respective agencies in the current system are diverse and complex, and understanding the contemporary role of these agencies is imperative in understanding this research. Therefore, the following section will outline the role of each of the relevant agencies highlighted above, as well as agencies specifically involved with the development of the HMR.

**Greater Hyderabad Municipal Corporation (GHMC)**

GHMC are currently the regulatory body for planning and development in Hyderabad. Their functions and duties are outlined in the Hyderabad Metropolitan Corporation Act 1965. They are primarily charged with key civic services and infrastructural development tasks. These include the development of transportation amenities, flyovers, bridges, roads and the widening of roads, town planning (including zoning and building regulations), and the development of the city’s commuter train line. Their duties also include maintenance and alteration of places and roads and the implementation of various schemes by state and central government (Greater Hyderabad Municipal Corporation, 2012). In general, their role is one of regulating the building, sub-division and general land use processes in the city.

GHMCs mandate for assisting in the Metro Rail development process spans a number of key tasks and their primary role is the process of land acquisition. This involves serving notices to those individuals or groups whose land is required and the subsequent execution of demolition works on these pieces of land if needed. Further, GHMC are responsible for undertaking extensive road widening, which forms a crucial element of the development process for the Metro Rail (Greater Hyderabad Municipal Corporation,
The metro is primarily undergoing construction on the median strip of roads in Hyderabad, therefore widening of roads is required in almost all areas of the city. This mandate is passed down by HMRL who determine the land which is required for the construction of the metro corridors.

In addition to its role in land acquisition, GHMC is also responsible for the various permissions which go hand in hand with a project like the HMR. These predominantly include building permissions and consents, as well as permissions for advertising and construction of associated developments. As outlined previously, GHMC is headed by a Chief Commissioner who has overall decision-making power. Responsibility is also devolved to the Zonal level, where there are Zonal Commissioners and staff responsible for functions and duties within each of the five geographical zones.

**Hyderabad Metropolitan Development Agency (HMDA) & Unified Metropolitan Transport Authority (UMTA)**

The roles which HMDA are responsible for include zoning, land use planning and strategic development of the 7,100km² of Hyderabad’s metropolitan region (see figure 18). The self-identified purpose of the Agency is “planning, co-ordination, supervising, promoting and securing the planned development of the Hyderabad Metropolitan Region” (Hyderabad Metropolitan Development Authority, 2013a, p.1). Simply put, HMDA is responsible for land use planning and zoning of the metropolitan region, which includes the creation of master plans for the area and its municipalities. HMDA is also tasked with acting as a central coordinating authority for the activities of Hyderabad’s municipal corporations, and local authorities.
Figure 18. HMDA Land Use Zoning Plan and Metropolitan Area. Source: Hyderabad Metropolitan Development Authority (2013b).
HMDA plays a vital role in the establishment of the HMR and associated development. The zoning and land use allocations which it creates in the master and zonal Plans are statutorily binding. Therefore, in order for the HMR and associated development to be permitted, it must be provided for in the planning documents which HMDA produce. The Metro Rail is to be constructed within the boundaries of the purple area in the above map, which indicates the current route of the Outer Ring Road.

The Unified Metropolitan Transport Authority (UMTA) was created through government order in 2008, as an agency run by HMDA. Their mandate is to act in an oversight and co-ordination capacity to deal with issues of transport and transportation in the Hyderabad Metropolitan Region (Hyderabad Metropolitan Development Authority, 2009). The Authority oversees various schemes and projects undertaken by numerous agencies in the metropolitan region. At present, given the undeveloped nature of the agency, its roles and responsibilities focus more on research and strategy for future transportation development.

Government of India (GoI)

India’s central government, while not directly involved in the HMR project, is a key factor in the way that the project has been undertaken and managed. GoI set policy and direction for the states of India, and by association this transfers through the GoAP to Hyderabad’s local governance system.

One of the key policy shifts which GoI has undertaken in recent years is away from central and state government involvement in infrastructure projects, to the encouragement and facilitation of PPPs for infrastructure projects. GoI has taken steps to encourage this and prepare state governments for developing PPP projects. This has included the National PPP Capacity Building Programme, to train and enable government officials throughout India to be able to develop PPP projects across the country.

Further, GoI set policy direction in respect of how to undertake metro rail developments across India. There has been specific direction to develop metro rail projects through PPP, especially when they are elevated developments. In addition, there has been
supplementary advice relating to the real estate components of metro rail projects. GoI have outlined that real estate components are acceptable but that these should comprise a minor component of the overall project so that the transportation focus is not clouded.

Metro rail developments are controlled by legislation at a central government level in India and typically guided by the Ministry for Urban Development. GoI have decided that all projects throughout India shall be undertaken through the central metro acts, particularly the Metro Railway Act 2002. The Ministry of Urban Development, has traditionally been the key agency in approving projects. However, amendments to the Metro Railway Act in 2009 have allowed the Ministry of Railways to undertake final approval in respect of technical planning and safety issues for metro projects.

Traditionally, metro projects have been undertaken through utilisation of the Tramways Act 2008. However, the Commissioner of Railways Safety, who since the 2009 amendments to the Metro Railways Act has final say over safety issues, has recently outlined that undertaking a Metro Railway under the jurisdiction of the Tramways Act will not be tolerated (Shiv Shankar, 2012b). This occurred in Bangalore, where the commissioner specified the different safety requirements between metro’s and tramways, and that a separate metro rail legislation is required. This will generally fall to the legislation of the local government, which for Hyderabad is the GoAP.

**Government of Andhra Pradesh (GoAP)**

Many of the roles and responsibilities which would usually be carried out by GoAP in the project are actively undertaken by HRML on their behalf. This is to ensure the viewpoints, needs and decisions of the GoAP are represented, whilst avoiding many of the complications that could arise if they were directly involved in the project. Therefore, HMRL is essentially acting as the GoAP in the HMR project.

GoAP were also responsible for deciding on the HMR as the transport solution for Hyderabad, as well as the preliminary scoping and assessments required for such an infrastructure project. This is primarily the key role which GoAP has played throughout the process, before HMRL was created to manage the ongoing development of the rail itself.
The GoAP has also provided viability gap funding for the project, through the federal government. This is a scheme to ensure the financial viability of PPP infrastructure projects throughout India. This viability gap funding is aimed at ensuring both the financial viability of the project in the long term, and the affordability of the HMR for the people of Hyderabad. This has also allowed GoAP to fix the future fares of HMR for passengers, and remove this decision-making from L&T. The fares are fixed at a minimum of Rs.8 (NZ$0.15).

GoAP is also responsible for developing legislation which is required to implement the HMR. To provide legal cover for the metro, GoAP enacted the Andhra Pradesh Municipal Tramways Act 2008. The GoAP have outlined that this Act adequately approaches the development of the HMR and its implementation (Shiv Shankar, 2012b). However, given the issues experienced in Bangalore, and the discussion above regarding discrepancies between the Tramways Acts and specific Metro Rail Acts, it remains to be seen whether this approach is suitable.

Hyderabad Metropolitan Rail Limited (HMRL)

HMRL is a Special Purpose Vehicle of state government, specifically tasked with oversight of the metro project. For all intents and purposes, HMRL is a private entity representing the interests of the GoAP in the process of establishing and implementing the metro. Officially, their purpose is to:

...engage in and/or facilitate the business of (a) Mass Transit System and to enter into contracts with individuals, companies and any other persons for purchase of equipment and for technical, financial or any other assistance...

(Hyderabad Metro Rail Limited, 2013)

HMRL operate in a similar way to a private corporation, and are accountable to a board of directors. This board has the ultimate power of decision-making for the HMR and these decisions are implemented by the Managing Director, NVS Reddy. HMRL's board of directors are comprised of representatives from various GoAP departments and include the Chief Secretary and the principal secretaries of the Road & Building, Municipal Administration and Urban Development departments.
HMRL act as the single point of consultation and liaison between GoAP and all other parties involved with the project. Therefore, HMRL act almost dually, as a private corporation and government agency. They follow rules, regulations and instructions as followed by government departments, while acting in the interests of only the HMR.

**Larsen and Toubro Metro Rail Hyderabad (L&T)**

L&T were awarded the concession agreement by GoAP on a Design, Build, Finance, Operate and Transfer basis in September 2010. The concession agreement between GoAP and L&T lasts for a period of 35 years, with a pre-agreement to extend the concession for a further 25 years. Once the concession lapses, the land and all associated development will return to GoAP. L&T have previously been involved with construction of large-scale infrastructure projects such as the Delhi Metro Rail, although only in a construction capacity. HMRL determined the route of the project, and many of the project specifications associated with the development of the metro. The concession requires any major changes to the routes requested by HMRL, to be paid for by HMRL themselves.

As a concessionaire of the project, L&T are mandated by GoAP and HMRL in relation to timeframes and locations for completion of the metro as agreed in the concession. The preliminary scoping, assessments and research for the project had been undertaken by consultants before L&T became involved. Therefore, excluded from the mandate for L&T was the completion of assessments into the environmental, social, economic impacts or otherwise of the project. Their key function in considering this research are to undertake construction of the rail lines and depots, and the associated construction of TOD in areas of land provided to them by GoAP.

**Planning Complexities**

The organisations and agencies discussed all have a significant role to play within the Hyderabad planning system. It is evident from the description of their duties and functions that there is some deal of bureaucratic confusion and complexity, both between different agencies, and within agencies themselves. From the discussion of their roles and responsibilities, it is clear that there are some overlaps in both the
jurisdictional and functional boundaries. This is reinforced in the case study of the HMR, given the existence of L&T and HMRL in the organisational structure for the project, which is depicted in figure 19 below.

Given the description above, it is unsurprising that previous issues have arisen with regard to the complexities of the planning system in Hyderabad, and steps have been taken to address this. As will be discussed in the following section, a number of policy documents have stated the need to develop a more cohesive and coordinated planning system. In fact, transportation has been a specific target for reform, which gave rise to the UMTA.

Figure 19. Organisational structure for the development of the Hyderabad Metro Rail. Source: Author (2014).
The complexity inherent within Hyderabad’s planning system and the large number of agencies in that system, almost inevitably results in gaps and overlaps in service provision, and failures in planning and regulation. The following section will outline the planning documents pertinent to implementing this system, which stems from the functions and duties of the bodies discussed in this section.

3.3 Planning and Legislative Context

The authorities above are mandated with developing various plans and programmes to systematically implement development and planning in Hyderabad. These plans frame the duties and functions of the organisations, and how these relate to the planning of the HMR.

Hyderabad City Development Plan

The Hyderabad City Development Plan is a document mandated by the JNNURM which began in 2005. The mission states that all Indian cities with a population exceeding one million, must prepare a development plan in order to be eligible for funding which is allocated under the policy. It requires local government and planning organisations to evaluate the state of urban infrastructure, service provision and the urban poor. Hyderabad’s development plan is developed by GHMC, but with contributions from and applicable to, all agencies in Hyderabad and is current as of September 2010.

The process of creating and implementing a development plan is prescriptively outlined by guidance documents produced under the renewal mission (Government of India, 2005). It is a complex exercise which should have inputs from a number of key stakeholders and be very specific in focus and ambition.

Hyderabad’s City Development Plan states that its main objective is:

To have a planned growth of the city in the desired direction, and to promote Hyderabad as a global city, guided by a shared vision for city development. (Greater Hyderabad Municipal Corporation, 2006, p.2)
The main focus of the plan is identification of issues, rather than producing solutions to these issues. Of key interest to this research context, are the issues which have been identified throughout the transportation system. These are broadly that the safety, reliability and efficiency of the current public transportation system is far below what is required. In addition, it is highlighted that the current road networks are unable to handle an increasingly large mode share of private vehicles, and that without drastic change to transport infrastructure, there could be serious impacts for Hyderabad and its future growth and development.

**Hyderabad Master Planning**

Hyderabad’s master plans are developed by HMDA, and outline the land use zoning for the wider metropolitan area. The current Hyderabad Master Plan has been developed in conjunction with major stakeholder agencies in Hyderabad, and some degree of public involvement. The most recent Master Plan was the one shown previously in figure 18 and contains the relevant zoning for the Hyderabad Core Area, which is where the HMR is being undertaken. This plan is current until 2031. As outlined within the literature, India has a long history of master planning, and the current process has been refined over time. The Hyderabad Master Plan draws input from a variety of stakeholders to implement the vision for the city, in the form of land use allocation.

**Comprehensive Transportation Study**

The study is undertaken by HMDA in collaboration with all metropolitan agencies in Hyderabad, and the central government. The study began in 2011, and is a by-product of many of the findings in the City Development Plan. The key aim of the study is to develop a strategic and long term transportation policy and plan for the metropolitan area (Hyderabad Metropolitan Development Authority, 2011). Through various traffic and transportation studies, the study aims to develop a strategic approach to dealing with projected growth of the city and its transport requirements. A further key aim is to determine different modes of transport which may be viable in Hyderabad, and how to best incorporate these into a mixed modal approach to solving transportation issues (Hyderabad Metropolitan Development Authority, 2011).
Andhra Pradesh: Vision 2020
The Vision 2020 document is one which outlines the goals and future direction of the state of Andhra Pradesh. The state is the first in India to produce a Vision 2020 document and its aim is to make it the foremost state throughout the country in relation to growth, equity and quality of life.

The document has a significant focus on increasing the provision of basic services, such as transport, to the wider population of Hyderabad. It also sets the strategic direction of providing a far more efficient and effective transportation system to deal with the increasing pressure on the roading network and wider transport system in the state, and particularly Hyderabad.

It further outlines the mission statements for the state, and how GoAP is going to undertake and achieve the goals which it outlines throughout the document. Vision 2020 is also crucial in the development and management of Hyderabad’s growth. The document is key in outlining how Hyderabad is going to achieve urban management and development. There is a strong focus on utilising Hyderabad to spur the state’s economic and social development. The state outlines a policy shift away from government funding and projects to a higher involvement from the private sector and private sector investment. It highlights that GoAP needs to transform into an entity which can facilitate investment and act as a catalyst for economic growth, rather than have direct involvement in new projects. This is also in line with central government policy.

3.4 Conclusion

This section has outlined the various contexts within which the research is based from the planning system, agencies and legislative setting to the various political, geographical and demographic contexts which are crucial in understanding the research. From this contextual information, it is apparent that Hyderabad is a hugely complex urban setting, and management of the city is equally complex. Given the relationships between various ongoing processes and the difficulties which these can pose to research, it is crucial to develop a systematic and highly planned approach to undertaking research in the city. The following section will illustrate the methodological
approach chosen for the research process, and how this contributed to the acquisition of information regarding the HMR.
Chapter Four: Research Methodology

This chapter provides an outline of the various considerations which have been incorporated into the overall research process. It highlights the methods which were employed during the collection of data and why these methods were chosen. Further, it outlines key ethical and positional concerns which are inherent in researching within a context such as India. The chapter also discusses how fieldwork data has been analysed and what limitations arose during fieldwork which could have implications on the findings of this research.

4.1 Research Design

The research design is an integral part of any academic investigation, especially as it establishes the process through which the research will be undertaken. As Bryman (2004, p.27) outlines, the “research design provides a framework for the collection and analysis of data”. The research design allows for a coherent and logical approach and progression to the research process and facilitates high quality outputs. It is usual for research designs to incorporate a wide range of methods which allows for a wider range of, and superior quality data to be collected.

Given the complex nature of this research and its context, it is important to consider the various scales in which the research issues exist. Undertaking a study on the wider impacts of metro rail development in India was highly impractical, and through undertaking a multi-scalar case study approach to the current debate, the most effective results were attainable. The concept of ‘case study’ varies dependent on the academic field, although Eisenhardt (1999, p.138) highlights that there are a number of common features, and suggests that a case study can be defined as:

a research strategy which focuses on understanding the dynamics present within a single setting…[and] can involve either single or multiple cases, and numerous levels of analysis.
Eisenhardt also indicates that case studies typically include a combination and variety of research methods, which serve to satisfy multiple aims and objectives. Platt (1999) stresses that a case study approach must not be whimsical and convenient but a considered and rationalised choice. That is, case studies should not be a convenience, but chosen based on their ability to provide an alternative approach and yield new and representative results. Given this consideration, the case studies chosen for this research have been considered at length and chosen based on their suitability to provide quality research outputs.

The current research uses two levels of case study. First, investigation will occur of the municipal level planning and development of Hyderabad. This will inform the evaluation of the planning framework within which planning decisions relating to the HMR were made. Second, three micro-level case studies have been chosen to highlight how planning decisions manifest at a neighbourhood or community level, and what implications these decisions have at this scale. These case studies are Sultan Bazar, Ameerpet and the Secunderabad ISKCON temple. The case studies each represent different aspects of how the planning process is interacting with the Hyderabad context. Sultan Bazar has issues of agitation and effects on livelihoods, in addition to impacts on heritage values as a result of planning decisions. Ameerpet represents the wider economic impacts which can result from planning, and how these can affect communities. The ISKCON temple provides an example of how planning organisations interact with civil society, and how groups are able to agitate against planning decisions. Further information regarding these case studies was outlined in the introduction of this thesis.

With this approach identified, it is now integral to identify the various methods which were chosen to implement the research process. The following section will outline these methods, and why each plays a key part in evaluating the planning process in the development of the HMR.
4.2 Methods

Grey Literature

The research process was informed not only by the extensive literature review in chapter two of this thesis but also through the use of grey literature, such as newspaper articles and blogging websites. Newspapers in particular provided a useful way of developing an understanding of the processes occurring in Hyderabad prior to field research. Using media sources in this way, enabled the research to be more specifically targeted toward certain issues, narrow the research scope, and most importantly develop expectations regarding the impacts likely to be experienced on the ground in Hyderabad, and where these might be occurring.

Blogging websites also provided a useful tool in understanding the HMR process prior to fieldwork. Given the contentious nature of the project, and the agitation which has taken place, blogging websites provided a number of uses. They enabled an indication of the key issues arising during development of the HMR which helped to strongly identify key topics of interest, and key sites which may be useful as case studies. Blogging websites also enabled an identification of particular key informants who would be useful to speak with, and who have an active interest in the processes taking place on the HMR.

Grey literature therefore provided a useful tool in developing an understanding of the various viewpoints and issues which were being experienced in Hyderabad, prior to fieldwork. However, it should be noted that media reporting has inherent bias in the manner in which it is reported. Therefore, grey literature was not used to determine viewpoints, or the most important issues, rather to assist in identifying potential sites of interest or agitation throughout the city.

Key Informant Interviews

Interviews “are an excellent method of gaining access to information about events, opinions and experiences” (Dunn, 2000, p.53). They provide insight into the interactions between certain processes and the social experience of communities (Dunn, 2000). Interviews were utilised to give insight into the experiences and opinions of the
HMR from a variety of perspectives. Rather than providing a hard and fast ‘truth’ about the issue, interviews provide an array of different perspectives and experiences (Henn et al., 2006). In this research these were focused on how different processes and planning outcomes are being perceived, and are affecting communities, in Hyderabad.

Selecting participants is a key element of the research process, and thus it is vital that the ‘right’ people be selected for interviewing (Bradshaw and Stratford, 2000). In developing an idea of who the ‘right’ people are to be interviewed, researchers must rely heavily on secondary research (Bradshaw and Stratford, 2000). Secondary data therefore strongly informed the process of interviewee selection. Equally as important as who is selected, is how participants are selected. It is important to use a variety of selection methods so as to gain a wider group of participants and therefore a wider range of perspectives and experiences (Bryman, 1988). Interviewees were therefore selected based on their involvement with the HMR project, both at the bureaucratic level and within the micro case studies.

Selection of key informants prior to fieldwork utilised both theory driven, and purposeful driven, methods of identification. Theory driven sampling utilises previous experience and theory to select participants based on their usefulness to the projects aims and objectives (Gilchrist, 1999). This enabled interview participants to be chosen with specific regard to the needs of the project. Purposeful sampling was utilised to enable specific key participants to be contacted as more was learned about the research topic and the parties involved in Metro Rail development. Purposeful sampling involves a number of forms and a variety of these methods were used in this research (Gilchrist, 1999). ‘Snowball’ sampling was used to provide an opportunity to learn more on a specific issue, by uncovering key informants based on recommendations from prior participants (Bradshaw and Stratford, 2000). Perhaps the most useful purposeful sampling method in this research was that of ‘convenience’ sampling. Bradshaw and Stratford (2000) highlight that this method allows the researcher to select participants based on ease of access, which given the research setting was extremely important. This method allowed visits to key areas of interest in the project, such as the micro case studies, approaching people who were accessible and appeared relevantly involved with the research topic. A full list of interview participants and their general roles has been provided in Appendix B.
Interview questions were drawn from a master list, which was developed in relation to findings from secondary data collection prior to field work. This master list was then tailored to individual participants based on their involvement with specific areas of the research topic. This tailoring is important, because as Dunn (2000, p.53) establishes, “Every interview and every research issue demands its preparation and practice”. The master list of interview questions can be found in the ethics application in Appendix A.

The interviews followed a semi-structured interview approach, where the interview was guided by the tailored list of questions for the participant, but the interview was not restricted to solely those matters. Semi-structured interviews are useful when evaluating processual concerns which are highly important to this research. As Harrison (2009, p.336) highlight, semi-structured interviewing:

…provides opportunities to learn about critical areas that are not readily assessed through standardized questionnaires. These include organisational processes, basic assumptions and beliefs, and critical organisation level phenomena – such as management control process.

This approach was therefore vital in delivering usable and useful results in the assessment of all the issues, but particularly when discussing organisational planning issues. Key informants were able to guide the interview in any way they saw fit, enabling topics and issues not previously covered to be discussed. In general, interviewing attempted to follow a ‘pyramid’ or ‘funnelling’ interview style, where the interview progressed from more general questions, to specifics regarding the participants’ situation, experiences and involvement with the HMR. This style allows for the participants to be eased into the interview process and feel more comfortable answering questions (Henn et al., 2006), therefore hopefully delivering more reliable outputs.

Key informants included those from government agencies and institutions, community members directly and indirectly affected by Metro Rail development, academics specialising in the case study, journalists who prominently report in the local area, Non-Governmental Organisations, and local traders/businessman of case study areas. These key informant interviews yielded data for in depth qualitative results in regards to a
number of issues. The interviews, while the primary source of data, were also supplemented by a number of other methods of data collection.

**Land Use Observations**

Observational data is a qualitative method which involves data collection with no direct contact or conversation with participants (Walliman, 2011). Commonly, observational data is utilised in terms of supplementing information gathered through other methods of data collection, such as interviews or surveys (Chambliss and Schutt, 2003, p.59). In this instance, observational data was utilised to understand existing land use in the micro case study areas and the current patterns of development with relation to the Metro Rail. The observations were used to supplement information from the literature review, policy analysis and key informant interviews to inform the judgements made in the results and discussion chapters of this thesis.

**Literature Review**

Bryman (1988) discusses the merits or otherwise of conducting a wide theoretical understanding of a topic prior to fieldwork. There is discussion surrounding limitations to thematic considerations of the research at hand, and the interwoven process of empirical research and theoretical review. Given this consideration, reviewing theoretical literature for this research was not limited to a single phase. Rather, a review was ongoing prior to, and post field research, which allowed a number of crucial aspects of the research to be developed. The results of the theoretical literature review have been outlined in chapter two, however, assessment of the wider literature has been ongoing throughout the research process, and contributed to arriving at decisions and conclusions regarding the research topic and the judgements made in the results chapter of the thesis.

The literature review process helped to situate the research within wider theory, and has helped to elevate the research process (Henn et al., 2006). Crucially, this process assists in the “building of bridges between the analysis of the field observations and theoretical aspects of existing studies” (Gherardi and Turner, 1999, p.114). Linking your own research to wider theory is a key component of the research process, and enables an
understanding of how your own work resides within the wider field. It enables the findings of the research to be ‘made sense of’ in relation to wider understandings and theory (May, 2001). The literature review therefore provides the theoretical basis for this consideration, and the discussion section of this thesis demonstrates the relationships between collected data and previous literature, and the implications of this for the current research.

**Documentary, Legislative & Policy Analysis**

This analysis was undertaken prior to field research, with the aim of understanding the legislative and policy frameworks and contexts, within which the case study research is set. The process involved critical analysis of local, regional, state and federal level policy documents, strategic policy and statutes which indicate how transportation and municipal affairs are governed at various levels. A critical approach is key in understanding how these documents are having an impact on society (Henn et al., 2006), and therefore have a strong bearing on our understanding of the consequences of the management and planning approaches utilised for the HMR. A critical documentary review is important, assisting in understanding the contemporary approaches which are being taken in the research setting. These are pivotal in the evaluation of the planning process which is a key aim of this research.

**4.3 Positionality**

Research is undoubtedly shaped by ones position as a researcher, how this position defines how the research is undertaken, and how others engage with the researcher and the research process (Mullings, 1999). Given the social context within which this research is undertaken, considerations are required regarding positionality during the research process. Positionality shapes how the research results are perceived and interpreted, given the difference in background, opinion and perception (Skelton, 2009). Given these understandings of the importance of positionality considerations, it is imperative that I as the researcher reflect on my own values, viewpoints and background when undertaking research. Above this, it is important to consider how these values, viewpoints and my background affect the research in different ways, and what the implications are of my positionality.
I am a white European male, from a working class family, having been educated in both the United Kingdom and New Zealand. This upbringing inherently affects not only how I conceptualise the issues being discussed in this thesis, but also the relationships with, and questions asked of, the participants to this research. This positionality has both positive and negative connotations for the research. On one hand, I may be viewed by participants as unaware of, and detached from the local issues being experience, which may skew the information which they provide given a predetermined opinion based on my ethnicity and background. On the other, my background may be a virtue in so much as participants are passionate and welcoming about revealing their opinions and viewpoints to someone external and neutral from the issues. Further, given my education in the New Zealand planning system, and even more specifically at the University of Otago, the way I perceive and analyse planning issues is far different to that of a planning scholar in India, and for the most part anywhere else in the world.

I feel one of the strengths of my positionality is that being extraneous to Indian culture provides me with a certain neutrality regarding the research topic. In this sense, it is hoped my positionality as a white, New Zealand trained planner will assist in providing a balanced and in depth approach to the issues at hand. It is hoped that this positionality has provided a positive approach which highlights more of the inadequacies in the planning process, and the inequalities being experienced throughout the development of the HMR.

An additional concern which must be considered is that of the language barrier. As Cleary (2013) outlines, language forms a significant part of the cross cultural research process. It is pertinent to ensure that language barriers do not come in the way of the research, and more importantly, that differences in the spoken word do not offend or insult the research participants. In order to overcome this, it is sometimes useful to have a local assistant, who is familiar with the research process and topic so as to overcome any communication barriers (Cleary, 2013). Therefore, a research assistant able to speak Telugu was present throughout the research process to minimise language issues and ensuring the comfort of all research participants.

It is also imperative that the viewpoint of the local people, and participants is understood. The concept of ‘research’ is highly problematic, and evokes visions of the
‘researcher’ and the ‘researched’, as well as images of exploitation (Skelton, 2009). It must be noted that this research does not seek personal advantage, rather to address an issue which is directly affecting a large number of Hyderabadis. Cleary (2013, p.213) states that “…there is an ethical imperative to return knowledge in accessible forms to those researched, and to go beyond that”. It is hoped that through raising the issues in this research, the findings will not only be distributed to those participants who showed interest in receiving them, but that the recommendations and findings of the research may influence positive change and planning practice. At a basic level, there shall be new research with specific focus on raising the issues and implications of planning on the wider population of Hyderabad. Positioning this research and the researcher within that context aims to ensure that results are gained which will not be affected by positionality in respect to the issues identified above.

4.4 Ethical Considerations

It has been suggested that cross cultural research such as this requires more in depth consideration of ethical concerns given the cultural complexities and difference in context (Skelton, 2009). Therefore in developing a research methodology for this project, it was imperative to give due consideration to ethical concerns.

Bulmer (1999, p.3) suggests that ethics is:

…a matter of principled sensitivity to the rights of others. Being ethical limits the choices we can make in the pursuit of truth. Ethics say that while truth is good, respect for human dignity is better, even if, in the extreme case, the respect of human dignity leaves one ignorant of human nature. (Bulmer, 1999, p.3).

Considering the ethical implications of research is a crucial part of the overall research process, and strongly influences the types of research which are undertaken. Bulmer (1999) suggests that the research process should involve complete transparency, with the purpose of the overall research and participants’ contributions being clear at all times. Further, he views the research process as one where no burden should be placed on participants, and that the weight of research is only ever on the researchers shoulders.
Cleary (2013) suggests that one’s positionality strongly influences the ethical considerations of a research process. Particularly given my position as an outsider to Indian culture, Cleary suggests it is crucial to fully appreciate and respect the cultural, religious and social conventions of the participants.

Given the importance of these consideration during the research process, a comprehensive ethical approval application was submitted to the University of Otago Ethics Committee prior to the undertaking of fieldwork. During fieldwork, all effort was taken to ensure that the cross cultural issues, and rights of participants were duly protected. Appendix A contains a copy of this ethical approval and related material such as consent forms and information sheets.

4.5 Data Analysis

Analysis of collected data is a key element of the research process, as it allows the researcher to undertake a process of “searching for patterns and relationships among the specific details” (Neuman, 2003, p.590). Therefore, it was important to analyse the data which was collected through the various methods outlined above, and begin the development of key themes, patterns and relationships within this data. These themes can then be used so as to guide the key results from the field work, and begin to analyse these themes in relation to the research aims and objectives.

The process for this research was to initially use a data reduction process, so as to discount any information which was irrelevant for the current study. This was done through transcription of key informant interviews and interpretation of the collected observational data. Interpretation was primarily undertaken through the process of coding, which allows the categorization of key points of discussion, and themes which are apparent throughout all interviews (Neuman, 2003).

Once coded, the data was compiled into thematic collections which have been used to inform the understanding of the issues involved and are presented in the results and discussion within this thesis.
4.6 Limitations

All research is susceptible to suffering from limitations, both within the devised methodology, and considerations in the field which are outside of the researcher’s control. Given that the limitations of particular research methods are described throughout this chapter, the focus here are limitations of the research which were not a result of the chosen methodology.

The political situation in the state of Andhra Pradesh has been tumultuous for a number of years. During the field research, this situation escalated with the official passing of the Andhra Pradesh State Reorganisation Act 2014. The passing of this bill resulted in demonstrations, curfews and an increase in the workload and schedules of a number of governmental officials. All of these aspects indirectly and directly affected the capacity of myself as a researcher to continue with meaningful progress in data collection. My mobility was impeded through celebration and protest, resulting in missed interviews and postponements. More importantly, the increased workload of local government during the research process resulted in a lack of desired representation from municipal level groups, particularly GHMC and HMRL.

Perhaps the key limitation to the research is the lack of involvement from key planning and project agencies. Both the GHMC and HMRL took a limited role in contributing to the research process, or the information they provided was minimal and contributed little to developing an understanding of the planning processes. It would have been useful to collect information and viewpoints from a greater array of key informants within these agencies, so as to understand a wider range of perspectives on the project and of the respective roles of these agencies. While unfortunate, the lack of information provided by the agencies themselves, has been mitigated by information collected from other agencies, and attained through other methods, primarily documentary analysis of planning documents.

A further concern is that all key informants were fluent in English. While this also made the research process easier, it has the potential to skew the findings. It is possible that lower socioeconomic classes would be unable to speak fluent English, given a lack of
education. Given that all interviewees had well spoken English, it suggests a possible lack of interviews with poorer and less educated members of society, which may provide skewed results favouring the viewpoints of the middle class. While this is a slight concern, it is believed that those spoken to during fieldwork strongly represent the parties who are being directly and indirectly affected by the HMR project, and in that sense there are no concerns regarding the information which has been collected.

4.7 Conclusion

Developing a sound research methodology is crucial in ensuring the robust nature of any research process and the validity of its outcomes (Neuman, 2003). Therefore, this chapter has outlined the methodology chosen to examine the planning and decision-making framework in Hyderabad and how this relates specifically to the HMR. These methods have significant implications on research outcomes and the findings from the overall research process. Further, it is crucial to reflect on this process and consider why the methodology chosen was appropriate and how, if at all, the chosen methodology could have been improved. Developing and reflecting upon a research methodology is an integral part of the research process. Without this step, the results and arguments based on the results, would not be justly supported. Given the considerations in this chapter, the following three chapters will highlight those very results, in relation to the three overriding themes which developed as a result of the field work. These themes centre on beaurocracy and organisational concerns, public involvement and consultation, and socio-economic impacts. These themes provide results and discussion surrounding their implications, and how they address the research aims, objectives and questions developed as a result of the methodology outlined in this chapter.
Chapter Five: The Recession and Failure of Planning

They have no plan, they just do and it is whimsical. One official comes and he gets an idea, then he gets another official and he gets another idea and then they break it again and it is chaos. It is all just completely disorganised and chaotic.

Key Informant 14

In an ideal scenario, literature suggests that transport planning and the role of planning agencies result in cities which are meticulously planned, and the agencies responsible for planning them are capable, culpable and operating together in a cohesive manner (Litman, 2014, Mohan, 2006, Panday, 2006). However, the reality is often far different. Certainly, India’s cities are not planned in the way that western cities are, and to some extent nor should they be. However, the ideal scenario of an effective and efficient planning system is something which is clearly absent in many of India’s cities, and is the case in Hyderabad. The current strategy, management and planning approach in Hyderabad is perplexingly inadequate, through both the fault of agencies, and the general conditions within which they have to operate.

Integral to understanding the implications of planning for urban development, and communities, is developing an appreciation of how the planning process works. Thus far, the thesis has described the approach of that planning system, and what it has intended to achieve. This chapter outlines the findings relating to the role of planning, and the agencies within the planning system. The chapter also highlights the implications of those findings for the development of the HMR and the wider urban development of Hyderabad.

The following discussion of the research findings will show that staff and agency inexperience, the unintegrated nature of land use planning and transport, lack of clarity in the roles and responsibilities of agencies, and incoordination between those agencies has resulted in an inadequate planning and decision-making process in Hyderabad. I argue with support from wider theory that this has serious implications not only for the
success of the HMR, but wider urban and strategic development in the city. Further, following chapters will show that this general planning malaise has significant consequences which trickle down to communities throughout Hyderabad.

5.1 Failures of Governance and Planning

Integrated planning is a key component in the management and planning of cities, and the development of urban transportation solutions (Litman, 2014). One of the key components of this research was analysing the HMR with regard to the (un)integration of the planning process behind it. The findings indicate there to be a lack of integration in many aspects of the HMR, and also broader decision-making and planning. This section will outline the two key areas where integration has failed; in land use and transportation planning, and wider transport network integration. These aspects are vital for both the development and success of the Metro Rail, and the ongoing strategic development of Hyderabad’s urban area.

**Integrated Land Use and Transportation Planning**

Close linkages between land use and transportation planning are absent within many urban authorities worldwide, and this has been widely critiqued throughout the literature (Bertolini et al., 2005, Priemus et al., 2001). Further, land use and transportation have commonly been segregated, and the consequences of this for urban development are significant (Bertolini et al., 2005, Priemus et al., 2001). The HMR provides a key example of how these relationships have failed, and why the process of integrated planning is imperative to undertaking large scale projects of this nature.

A planner instrumental in transportation planning in Hyderabad signified there have been issues with integrating transport into the wider land use planning for the city:

…there hasn’t been much planning because the first plan [Transportation Plan 1984] was for 20 years only…since then there have been integration problems, and hence no transportation plan as such. (Key Informant 12)
However, despite acknowledging the previous shortcomings of the planning system, Key Informant 12 highlighted that a process of correcting these failings had begun:

We understood that there is a requirement for a transportation plan…we ended up starting a comprehensive transportation study in 2011. This plan is for a thirty year period.

In addition to the self-identification of weaknesses in planning integration, a wide range of criticisms from people outside of the municipal administration were levelled at the planning process. A number of key informants highlighted that little strategic coordination of land use and transport planning had taken place in Hyderabad, and that planning has been riddled with ad-hoc decision-making. Concern was raised by many key informants, be it layperson, academic, civil servant or bureaucrat, regarding the planning process and the implications of this for the success of the HMR. Table 4 below highlights a number of those viewpoints.

Table 4. Selection of quotes regarding unintegrated planning.

<table>
<thead>
<tr>
<th>Key Informant</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Informant 14</td>
<td>“They have no plan, they just do it and its whimsical”</td>
</tr>
<tr>
<td>Key Informant 1</td>
<td>“The HMR has not been planned by the HMDA...you are making such a huge intervention in the city, with no regard to the Plan”</td>
</tr>
<tr>
<td>Key Informant 8</td>
<td>“If HMR comes, what is the role of bus, pedestrians, cycling? They don’t figure in the planning so there is none. Planning for one project is not planning at all”</td>
</tr>
<tr>
<td>Key Informant 8</td>
<td>“There is hardly any planning, the Master Plan supposedly incorporates the HMR on paper but there is no proper planning in the sense that HMR is only one component of transportation”</td>
</tr>
</tbody>
</table>
Another viewpoint from within HMDA specified that:

HMDA is a planning authority, not an implementing authority, nor a regulating authority. It’s the GHMC that plays a key role…HMDA only deal with planning; making the plan and handing it over to local authorities… (Key Informant 12).

This is in line with the viewpoints put forward by the bulk of informants spoken to for this research. It highlights that HMDA do not have a particular involvement in the planning process past developing the Master Plan. Once this plan has been developed, the role of interpreting and utilising the plan is not a part of HMDA’s mandate. This is certainly a cause for concern and the role of HMDA requires better integration with ongoing planning processes, rather than simply the development and provision of the plan to other local authorities, who often do not have the capacity to successfully implement the Plan in the way it has been foreseen by HMDA.

The relationship between decision-making and the practical planning of the city appears to be tenuous at best, representing a significant failure of that planning process. Interviews suggested that not only is there a lack of planning integration, but the HMR is actually being implemented with little regard at all for the physical plan. Documentary analysis of the Metro Rail’s plans and wider strategy correlates with key informants who believed that the Master Plan was not seen as an important document in the development of the HMR. Supporting this, interviews with key planning agencies in Hyderabad indicated that the Metro Rail was retrospectively applied to the Master Plan, which indicates the considerably ad-hoc decision-making which appears to have resulted from the lack of planning integration in the city.

The implications of this ad-hoc decision-making and lack of a strong planning influence are significant for a number of reasons. While central and state government set strategic policy direction, there needs to be a reliable system of local governance arrangements in order to fulfil and implement these policies suitably (Panday and Jamil, 2011). The results of the field work and documentary analysis indicate that the current planning framework and management regime in Hyderabad is not sufficient to implement these strategies and policies more broadly.
The implementation of the HMR clearly demonstrates that while certain projects can be pursued to satisfy the requirements of wider strategy, the planning system is not conducive to undertaking wider strategic development of the city. Planning and decision-making are not being made in a wider landscape of change and overall direction, rather the planning system facilitates ad-hoc decision-making, which is retrospectively pieced into master planning and wider city policy. Panday and Jamil (2011) suggest the lack of planning and transport integration represents a significant failure in governance processes and that these are essential in the successful implementation of urban policies.

The failures highlighted by the HMR pose general concerns for urban development in Hyderabad. Primarily because considering transport and land use planning in tandem results in better alleviation of transport issues, thereby providing an environment which facilitates effective transportation solutions (Litman, 2014). Further, it has been said that in an Indian context, considering the two separately has led to uneven development of transport modes and reinforcement of private vehicle reliance (Fernandes, 2004, Mohan, 2006). The lack of a relationship which exists between land use and transportation planning has significant impacts on how the HMR will complement the needs of the city and how the mode will integrate into Hyderabad’s wider transportation system. With development taking place with little or no consideration of transport and land use together, there is a likelihood that the HMR will simply reinforce the uneven development of transport modes which has been so prominently noted in the Indian experience. Further, with the HMR not being considered with relation to wider land use, it stands to reason that the system will not be complemented or supported by other transport modes. Through the work of Imran (2009) in the Pakistani context, we know that where governance arrangements and the combination of land use and transport planning are inadequate, public transport as a whole struggles to succeed. Evidence from field research suggests that this may well be the case in the Hyderabad context also. Building upon this idea, the next section outlines the research findings with relation to the capacity of Hyderabad and its planning system to develop a successful multi modal transport system.
Multi Modal Transport Network

Wider international experience has suggested that failing to consider land use and transport planning in unison creates difficulties in creating a modally diverse and integrated transport network (Litman, 2007). The research indicates that the HMR stands to be implemented into an unintegrated and modally unsupportive network as a result of the failures identified above. Further, findings suggest that these failures have previously had this impact on Hyderabad’s transport system.

Inadequacies in transport integration have previously been experienced in Hyderabad, with new transportation modes struggling to attract patronage due to lack of modal support. One key informant, an influential member of the media community, and long-time Hyderabad resident suggesting that the existing rail based system has perhaps failed to attract sufficient ridership because of the lack of integration with Hyderabad’s bus service, with:

On paper it was conceptualised that [the state bus service] will provide a lot of buses for [local train] station…but sadly that never took off…more or less the train system has failed because of this lack of coordination with other public transport. (Key Informant 17)

This failure was also raised by Key Informant 1:

They should have expanded it [the rail system] and provided better facilities and provided better links from the station to buses.

Despite previous transport failures due to a lack of modal support, there appears to have been a failure once again, by implementing authorities, to invest resources in developing modal support and an integrated network. A number of key informants outlined that modal support for the Metro Rail is not currently apparent in Hyderabad.

Key Informant 8 also indicated that the HMR wouldn’t solve the transport issues in Hyderabad without wider modal integration:
The existing public transport problems in Hyderabad have not been addressed by this Metro Rail. The bus rapid system, the existing local trains, the pedestrians, all of these could have been strengthened and the Metro Rail could have been brought in as an additional add on…this just hasn’t been done.

This was reinforced by a key planning figure within HMDA:

Metro, bus rapid transit, they are not substitutes they are complimentary to each other...Even for metro also, once you alight from this there should be some other mode of transport whether its auto, or bus, this needs to be there to take you home. (Key Informant 11)

Key Informant 22 highlighted that their organisation had raised these concerns with HMR authorities and planning agencies:

In certain areas, we have been recommending that you have a combination of coordinated transport. You can have the overhead, the bus.

A number of key informants also highlighted that rather than the HMR being established as part of a wider transport network, the project was actually impacting upon existing transportation options and preventing the development of bus and rail services.

This project is killing other projects…bus rapid transit was approved and this killed it, the local train system phase two, they just killed it. State buses, they are giving absolutely no incentive to carry more passengers. They carry three million passengers daily and that is still the backbone of public transport. But no concessions, no additional grants, whereas for metro they have everything to give. (Key Informant 8)

The Master Plan did not reserve land for bus depots...now the state bus company is being asked to give commercial rates to build bus depots, which they simply cannot afford. If they cannot afford that then there is going to be a large number of transit deficit areas in the city. (Key Informant 1)
However this was countered by key figures in the development of the HMR:

…[HMRL and L&T] are very much in coordination mode and the stations, and beside the HMR stations, bus bays also, so that the connectivity and integration of these 2 modes of transport is being very much thought of because the success of HMR depends on this. You are not going to go to HMR if you go somewhere else and you have no other transport to take you further. So that is being worked out, and on that basis only will it be a success story, otherwise it will not be a success. (Key Informant 11)

For an international experience, one has to have seamless travel facilities, so inter-modal coordination becomes the next important thing. That’s what we are doing as a part of this project, connecting the main railway terminals, we are connecting this to the metro as well as major bus depots. We have also identified a major traffic catchment areas, which are going to feed our services. (Key Informant 13)

While HMRL claim to be in ‘integration mode’, other key informants including members of some key planning agencies felt that the metro was going to be implemented into a system without modal support. This finding suggests that the planning system is one where the decision-making is reactionary, rather than well thought out and considered. As discussed, the lack of a strategic planning approach to land use and transport planning has placed the HMR into an environment which is unprepared to support it with other effective and efficient public transport modes. This is likely to have serious implications for the Metro Rail in attracting sufficient ridership.

It appears strange, given the well-known importance of integrating transport modes (Reis et al., 2013), that there is little citywide preparation being undertaken to actively achieve this in Hyderabad. As the work of Imran (2009) highlights with relation to Pakistan, a multi modal system is crucial in successful urban development and combating sprawl. I would contend that the planning authorities in Hyderabad are not prepared to integrate transportation modes in the city, and given that public transport theory highlights this as a keystone of success (Colonna et al., 2012, Imran, 2009),
concerns must exist for the success of the project in providing sustainable and effective public transport for Hyderabad.

Further, given the admission of planning agencies that integration with other modes is key, there appears to be a mismatched ideal of how to actively achieve this aim. I believe that the agency responsible for wider transportation studies, which is HMDA, is not actively supported in achieving integration with the HMR, because it has not been actively involved in the process. By reducing HMDAs role in the project to nothing more than a party to be consulted with, HMRL has inadvertently planned, and L&T will be operating, a mass transport system which will be introduced to a city unprepared to support it. As acknowledged by Metro Rail authorities, nobody will want to take the metro if they cannot use other public transport to complement it. This sentiment is well supported by international experience and wider theory, which shows that transport systems which operate in isolation from other modes struggle to attract ridership, therefore operating in competition with each other, struggling to attain sufficient revenue, and often fail completely as a result (Rodrigue et al., 2006).

It is concerning that Hyderabad’s planning regime has undertaken a project of such large scale and importance for the city with little or no focus on different levels of integration – both in the planning sense, and with other modes of transport. Public transportation solutions are typically far more effective at combating sprawl, and more efficient in their carrying of passengers, if projects are planned in unison with general land use and other transportation modes (Litman, 2014). Particularly in India, the detached nature of land use and transportation planning, and the separation of modes has been widely blamed for the gaps in public transport service provision, and the increasing sprawl of Indian cities (Fernandes, 2004, Nandi and Gamkhar, 2013). Given policy shifts and reforms under JNNURM which target improved integration of transport and land use (Mohan, 2008), it is therefore highly surprising that this project has been undertaken, and continues to be implemented with little practical regard to the importance of combining the two planning spheres, or indeed other modes of transport.

It would appear that very recent changes to the planning regime have started to better integrate planning approaches, but it is unclear whether the retrospective inclusion of the HMR in master planning and land use zoning, will create significant problems in
both land use and transportation planning going forward. Certainly both the international and Indian experience, as indicated in the literature, would suggest this to be likely.

5.2 Coordination & Competence

Hyderabad has a complex, multifaceted municipal administration. The organisational relationships in the project, as outlined in the context of this thesis, are highly complex and it was perhaps inevitable that issues would be found with relation to this. However, poor interagency relationships form only a small part of the wider problem with planning in Hyderabad. This section will show that there are fundamental issues with the very nature of the city’s planning system. I will argue, supported by the views of participants and wider theory, that there are flaws in the allocation of roles and responsibilities, which make effective planning inherently difficult. Further, that the HMR has exacerbated these issues, given the additional presence of HMRL and L&T in the project, and the metro stands to highlight the reform needed in the city’s municipal administration.

Staff Incapability

Finding staff inexperience in a project of the scale of the HMR is perhaps unsurprising, given that it is commonly touted as the world’s largest PPP infrastructure project. Inexperience and incapability of staff in project development commonly has significant consequences for the successful governance arrangements of projects (Panday and Jamil, 2011) and may result in considerable strain on the resourcing and effectiveness of municipal agencies. The findings indicate that inexperience is evident within the system, and this may have implications for the project outcomes of the HMR.

A number of concerns regarding the inexperience of staff, was raised by a senior figure within HMDA, highlighting issues regarding the process of implementing the HMR project. When questioned in relation to HMDAs role in the project, and how well they were carrying out their duties, Key Informant 10 stated:
Within the HMDA there is a significant lack of manpower to carry out our functions for this project…there too is a great deal of inexperienced people we have working on this project, people who haven’t really got qualifications to be prepared for a project like this.

In addition, Key Informant 10 highlighted that there had previously been issues in dealing with large scale infrastructure projects, such as the Outer and Inner Ring Roads, and flyovers. The informant believed that given HMDA is a relatively new agency in its own right, the agency is undergoing a significant learning curve during each of the large projects which it has been involved with.

Key Informant 10 suggested that in the past, inexperience had led to significant consequences for both the HMDA and other agencies. For example, HMDA staff had been tasked with undertaking pre-project assessment and surveying for a number of flyover and roading projects. This appraisal was undertaken to ascertain information relating to ground conditions and obstacles. Surveys found no evidence of any troublesome ground conditions, or obstacles which may impede development work. However, when projects were undertaken it eventuated that this information was incorrect and significant obstacles were found under the surface, and the ground conditions were unsuitable for structures. These mistakes led to substantial time delays and increases in costs for the project. This had direct impacts for GHMC who were responsible for the implementation of the project, and resulted in cost escalations and time delays for a number of projects throughout Hyderabad.

**Inadequacies in Coordination**

One of the issues inherent within the HMR planning process is the poor coordination between agencies. A wide range of interviewees highlighted the dysfunctional nature of the relationships between Hyderabad’s planning agencies, and this was obvious in documentary analysis and wider observations of the planning process. One particular example stood out that of the relationship between the planning authority (HMDA), and the regulatory authority (GHMC).
In explaining the basic relationship between the two agencies, Key Informant 1 indicated that:

[Hyderabad] is a city in which the planning authority which is HMDA, makes a plan and hands it over to GHMC which is the policing authority. HMDA doesn’t have the mission to do the policing and GHMC does not have any capacity to even understand what the Master Plan is.

This statement provides great cause for concern when considering planning for the HMR, and in a general sense. If there is no relationship or understanding between HMDA and GHMC, the planning focus and objectives contained within the master plans will remain unimplemented in the city. If there is a disjuncture between the master planning and the regulation of this planning, then projects like the metro are simply not grounded in future visions through urban planning.

When asked if there are issues in the coordination between different agencies involved with the Metro Rail project, a senior HMDA staff member indicated that:

Yes, issues with coordinating between different agencies like the Greater Hyderabad Municipal Corporation, but also between both of these [HMDA & GHMC] and other institutions and contractors also. (Key Informant 10)

A key figure in development of the HMR admitted that coordination was an issue, suggesting that given the nature of Indian bureaucracy, and the separation of roles inherent in that system, it was a challenge coordinating their needs in respect of this:

The same department is not responsible for everything…and since this kind of project has to have approvals from everybody we’ll have to run to all these people and coordination is certainly an issue. (Key Informant 15)

Key Informant 22 suggested that the relationships between planning agencies have been inadequate, and the current system has resulted in a lack of enforcement of the Master Plan:
The municipality [GHMC] which has been the manager of the city has consistently overlooked planning requirements, has overlooked any kind of restrictions and any kinds of fines, penalties…the politicians and the municipality, and the rules and regulations have all become confused in one total mess.

Key Informant 22 also indicated that as a result of uncoordinated planning efforts, and an overall lack of strategy, “the development in the city is very chaotic and disastrous, and I can say this with great authority because I have seen my city….change and develop in a very irresponsible way”

However, despite the concern regarding the lack of coordination, a number of senior staff within HMDA suggested that coordination hadn’t been an issue, and that HMDA still retained its role despite the presence of both L&T and HMRL.

…in this core area we have provided the rules for the Metro Rail. We have taken input from HMRL, we have demarcated all these roads in our Master Plan…moreover HMDA as coordinating agency coordinates developments taking place in its jurisdiction regardless of what department this is undertaking it. (Key Informant 11)

It appears as though the coordination between HMRL and planning authorities, has equated to little more than dictating requests regarding retrospective rezoning. It is imperative that the planning process is highly adaptable. With HMDA having a limited role, the planning of the metropolitan area cannot be undertaken effectively, and successful implementation of urban policy cannot be achieved.

A further issue which became apparent, is that the roles and responsibilities of the various planning agencies are unclear. Clearly defined roles, responsibilities and parameters are essential to the functioning of a planning system which involves multiple agencies (Gallez et al., 2010). Peters (1998) believes that the lack of these is a clear indicator of a deficiency in good governance processes. Hyderabad currently possesses a planning and governance regime which has failed to adequately define the roles and responsibilities of agencies in the city, representing a failure in the governance of the
municipal administration. It is particularly apparent that the functions and duties of HMDA and GHMC are poorly defined, and that this is leading to substantial confusion regarding who does what in respect of planning and enforcement in Hyderabad.

The added presence of HMRL and L&T in the planning process provides a further complexity. These agencies increasingly complicate a planning and decision-making system where the status quo is already ineffective. While to some extent these issues are indicative of the national context (Chatterji, 2013), the interaction between planning agencies, and the Metro Rail implementing authorities, have resulted in a decision-making environment which is having detrimental impacts on the project, and communities throughout Hyderabad as a result.

As Harpham and Boateng (1997) have discussed while special purpose vehicles like HMRL provide an effective management tool for projects like the metro, these should not come at the expense of agencies usually tasked with similar projects. However, issues in coordination are not only hampering the metro project, but are exacerbated significantly by the organisational structure put in place to oversee its development. It appears as though the role of HMDA, who are key in the master planning and land use zoning of the city, has been significantly affected by the inadequacies of coordination in the development of the metro. Their lack of involvement is perhaps most significant given the importance of the agency in integrating the project into both land use and transportation planning. The theoretical underpinnings of urban governance suggest that where coordination is lacking there is likely to be significant exacerbation of the issues being experienced in urban service provision (Gallez et al., 2010), in this case transport.

In addressing these issues, an evolution and reform of the current management and planning system is needed, particularly in relation to the roles and responsibilities of various organisations. While the creation of HMRL as an overseeing agency makes sense, its functions and jurisdiction have not been made expressly clear to all concerned, and the role which it possesses lacks clarity.

In terms of the planning regime, HMDA requires greater administrative and regulatory power to successfully implement and enforce its Master Plan, which will result in more credibility for that plan. Indeed, Key Informant 1 highlighted that previous studies into
the urban governance of Hyderabad suggested “reworking of the powers of the HMDA, and ensuring that you have a clear functional difference between various organisations”.

Given the findings of this research I suggest that this recommendation has great merit. The role of the HMDA lacks clarity, and its function as a planning authority appears to exist in isolation from the roles of other metropolitan organisations. It would appear that HMDAs roles and responsibilities are being overridden for the Metro Rail as a result of the uncertainties in coordination and role allocation for the project. Key Informant 10 highlights that:

"There needs to be a focus on building an institutional structure which can cope with development of this scale and nature [HMR Project]...the vision is there but the structure and operation is maybe not adequate to fulfil this yet. There is a lot to learn."

Allocating more responsibility and regulatory planning function to HMDA would ensure that not only is the agency able to successfully plan the metropolitan area, but be better able to control and manage land use zoning, and enforce the rules which it has established. As it stands this is simply not the case and the rules which the organisation sets for land use are either not being interpreted correctly, or infractions to the Master Plan zoning go unpunished.

In terms of transport, a possible solution is to evolve the use and role of UMTA, which is currently an umbrella organisation within HMDA. As outlined in the context chapter of this thesis, UMTA is currently used as a research body to prepare transportation strategies. However, results from field work have shown that this agency is perhaps not performing its function generally, and in the case of the HMR has been completed superseded. Key Informant 1 highlighted that the UMTA is:

"...only used as a space for minor conflict resolution between different agencies. It’s not a regulatory agency for making such a huge intervention in the city with no regard to the Master Plan."
However, the UMTA could be evolved to assist in fully integrated transportation solutions. It should not simply be used as a form of conflict resolution but a means to coordinate the various planning agencies in Hyderabad, while ensuring projects are not left with gaps or overlaps in service provision as a result of inadequate role allocation or coordination. The agency provides an opportune platform from which to better define, coordinate and maintain the roles of transport infrastructure related agencies, to help better develop transport and provide effective and efficient transport service to Hyderabad in the future.

5.3 Conclusion

The findings of this research have shown that the role of planning in Hyderabad, and in the development of the HMR, is lacking. Where the process is being utilised, shortfalls which are having significant impacts on the effectiveness of planning in Hyderabad are clearly evident. The lack of capability, coordination and integration of planning processes has resulted in decision-making which is ad-hoc, reactionary, and not linked with any clear vision of development for the city. The thoughts expressed by key informants, and analysis of the planning regime and associated documents, has indicated that these shortfalls are not only having an impact on the way that the HMR is being developed and implemented, but how the HMR fits within wider transportation strategy and land use planning processes. In order for there to be a system which effectively contributes to solving the transportation issues in the city, there needs to wider understanding of how planning can contribute to positive outcomes.

As it stands, the role of planning is indeed receding to the background, as Roy (2009) suggested had become the case in urban India. It would appear as though the undervalued nature of planning in contemporary Indian beaurocracy is having practical and tangible impacts on how the country’s cities are developing. In order to achieve better planning outcomes, there needs to be a focus on encouraging a planning system which is linked to a vision of how cities such as Hyderabad should be developing. The HMR has proved to emphasise just how short the planning regime is currently falling in relation to its operational effectiveness. However, perhaps more concerning is that while failing in many of its basic functions, the planning system in Hyderabad is also
excluding the wider public from the decision-making processes in projects like the HMR. This is worrying, because as the following chapter will indicate, involving the public in a planning process which exhibits such governance failures, can go a long way to mitigating those failures. In light of this, the following chapter will outline the findings with relation to public involvement in the planning process for the HMR.
Chapter Six: Public Involvement & Consultation

You should always carry the people along with you...the people have got the experts, and they have got the knowledge

Key Informant 3

The previous chapter outlined issues relating to the planning system and the roles of planning organisations in Hyderabad. The concerns raised in that chapter have a direct relevance to the findings in this one, which focuses on the communication between those organisations and the public, and the overall degree of meaningful public involvement in the HMR project.

This chapter focuses on two distinct and interrelated aspects of the public participatory process which have a direct bearing on the effectiveness of the project, and the impact on the public. These are the inadequate consultation which has taken place in the development of the HMR, and the shortfalls in communication and negotiation with affected parties.

The inadequacies in public consultation have wide ranging impacts not only for the public and non-governmental organisations, but also for HMRL and L&T who are implementing the Metro Rail. The chapter will highlight that the poor level of public involvement in the HMR project has led to unsatisfactory planning and project outcomes that could have been avoided, had relevant authorities taken a more inclusive approach to the process.

6.1 Public Participation & Information

Public participation is considered to be a key element of the planning process, although the degree to which this is realised varies greatly worldwide. Compounding this, public participation in transport decision-making is typically less than in land use planning. In line with this, the research indicated a lack of meaningful public involvement
throughout development and implementation of the Metro Rail. Considering this finding, this section stands to highlight two key arguments; first, that wider consultation procedures have been severely lacking and amount to no more than a public relations campaign; and second, that information about the project has not been easily attainable.

When considering what is commonly considered as meaningful public participation, as outlined in the literature review, there are major deficiencies in how the public have been involved in the HMR process. However, given the unique cultural conditions in India and locally in Hyderabad, there must be some realism when approaching this topic. Relative to this is the following assessment of why inclusion of the public, in projects like the HMR, is problematic in India:

Consultation with the broad cross section of people turns into serious political conflict and so most authorities which are supposed to do consultation treat it as a complaint receiving occasion. You make an inventory of the complaints and then you give people an assurance that these will be addressed. But not really a consultation process. (Key Informant 1)

The sentiment expressed by Key Informant 1 appears to encapsulate the issues found within this research. A number of key informants highlighted that when submitting complaints and concerns to relevant authorities, very little had been done with regards to these complaints, as indicated by table 5.

Table 5. Views of key informants on how authorities deal with complaints.

<table>
<thead>
<tr>
<th>Key Informant</th>
<th>Description</th>
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<tbody>
<tr>
<td>Key Informant 3</td>
<td>We have raised several objections but nothing is being done.</td>
</tr>
<tr>
<td>Key Informant 11</td>
<td>...in Hyderabad people give their objections and suggestions but they are not directly heard. They do it in writing but we don’t call them when their applications are disposed of.</td>
</tr>
<tr>
<td>Key Informant 20</td>
<td>They say ‘Okay. We have taken this’. Let me tell you we have given to members of legislative assembly, the MP, we have given to the governor, we have given to our GHMC commissioner, and even to many other officials. They look at the paper, and then they just forget it. Nobody takes care of it</td>
</tr>
</tbody>
</table>
What’s more, a significant number of key informants indicated that there had been very little consultation with the general public. The sentiments expressed by the interviewees also suggest that even the process of complaint receiving has been absent in many circumstances. This is indicated through the views of affected parties, as shown by key informants in table 6.

Table 6. Views on HMR consultation process from key informants.

<table>
<thead>
<tr>
<th>Key Informant 8</th>
<th>There is no level of participation from the public, there was never any consultation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Informant 14</td>
<td>When they came they were already ready to go ahead with it. Some teams must have come here years back and they must have seen something and they just planned it without talking to us.</td>
</tr>
<tr>
<td>Key informant 22</td>
<td>The metro has been imposed, designed and implemented without any public participation...the first thing for such a large project should be public consultation...so for the very first point there is no concern for the city.</td>
</tr>
<tr>
<td>Key Informant 20</td>
<td>I am sorry but they didn’t consult anybody. One fine morning we saw in the news report we were surprised to see that this is going to happen...They didn’t come to us, and not to residents or shop owners. They are not coming to vendors or job holders also. They haven’t consulted anybody. Just they are implementing.</td>
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</table>

Alarmingly, it was found that there appeared to be a significant lack of useful information available regarding the project and its impacts for the city and its people. A number of key informants indicated that information was difficult to obtain and that the quality of information amounted to little more than positive public relations material. The information seemingly available through online publications, or in the offices of HMRL and L&T did not contain information regarding the potential impacts of the project, or studies regarding these impacts.
Key Informant 15, a key figure in public relations for the HMR project outlined:

We conducted a campaign where we selected the brand ambassador for the Metro Rail where we conducted over 600 events at schools, corporates, etc. We didn’t tell them anything about the government or L&T we just asked them just imagine and tell us how do you think that your life is going to be impacted by the Metro

Key Informant 8 indicated that the consultation procedures merely amounted to press meetings, which do not compare in any way to genuine consultation. The interviewee indicated that releasing information to the press, and relying on media to distribute information, is an indication of the project “being pushed around the city with the least possible information shared with the public”. Further, a key informant with experience of attending the meetings with Metro Rail officials underlined the inadequacies in the information provided:

I went to a public hearing which was a farce, and was coordinated by The Hindu which is a major newspaper in the city and they put an advert in the paper that people who want to attend have to apply and then they would be allowed to attend or not…when we went to that meeting [HMRL] said we have to give our questions on a piece of paper and [they] will reply only to that, so I insisted that I am not here to ask just one question, I am here to ask whatever I want, and they were not happy. So that was one interaction that I attended and no information was forthcoming and people who asked questions were treated as nuisance (Key Informant 22).

Figure 20 provides an example of the consultation materials typically distributed at Metro Rail exhibitions and meetings. As can be seen, this document contains basic information relating to the cost and features of the project, as well as who is involved and the awards won by the project to date. The material does not cover the implications for the city, nor the projects potential impacts, and nowhere is this information easily attainable.
The results appear to indicate a planning process with highly inadequate consultation, particularly considering the scale and significance of the project. The failure to include the public in the wider planning process reflects a failure to follow trends in contemporary planning. Given the significance of the project for Hyderabad and its people, HMRL and other implementing authorities have missed an opportunity to make this project ‘world class’ in all senses by including the wider public in the process. Also, as highlighted by Key Informant 3, inclusion of the public has significant benefits not only for the public themselves, but also for those implementing the metro:

You should always carry the people along with you. They thought people will object but I have always seen that today there might be 100 objections and after they are sorted there might be 50 and after that there will hardly be any. The people have got the experts, and they have got the knowledge.

These failings have a great deal of theoretical significance, and are supported by a wide body of literature on the topic, stemming from the work of Arnstein (1969). Understanding the findings with relation to the work of Arnstein (1969) and subsequent theory, the results demonstrate that not only is there a lack of consultation being undertaken, but the procedures amount to little more than ‘Non-Participation’ and ‘Tokenism’ of the public in the process. Booth and Richardson (2001, p.147) outline that consultation is commonly either “an honest attempt to open up the policy process” or “an attempt to win public support for political decisions which have already been made.” Without a doubt, the results indicate the latter to be more reflective of the consultation process for the HMR. It has been used as a chance to inform the public of the positive aspects of the project, with an aim to gather support from an uninformed public.
Figure 20. Information materials available to wider Hyderabad public. Source: Hyderabad Metro Rail Limited (2014).
Therefore, by engaging in this type of consultation, HMRL and L&T are simply placating the public, and attempting to minimise the amount of public conjecture regarding the project.

The evidence gathered in this research then indicates that while consultation regarding the positive impacts of the project took place, the wider public are not fully informed about what the project entails and cannot therefore understand the implications of the project. Similarly, while planning authorities indicated they open the process up to receiving grievances and complaints, these grievances are often discarded without any regard and those who submit complaints commonly do not receive any communication from authorities. The findings indicate that not only is public involvement in the decision-making process insufficient, it is seen as a hurdle to achieving project outcomes by the authorities who are meant to facilitate this involvement.

Interestingly, Bickerstaff et al. (2002) suggest a range of six key elements of public involvement in a transport planning process, all of which have relevance to the findings of this research. They argue that these elements, or principles, exist to guide decision makers on public wants and needs, therefore providing a base from which to develop public transport options which the public feel invested in. Table 7 below highlights these with relation to the reality in the Metro Rail’s consultation process.

Table 7. Matrix of Bickerstaff et al. (2002) Six Principles and their inclusion in the HMR.

<table>
<thead>
<tr>
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<th></th>
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<tbody>
<tr>
<td><strong>Inclusiveness of the Public in the process</strong></td>
<td>• Public not fully involved</td>
</tr>
<tr>
<td></td>
<td>• Some groups more involved than others</td>
</tr>
<tr>
<td></td>
<td>• Much of the public excluded due to socio-economic status</td>
</tr>
<tr>
<td><strong>Openness and Transparency During the Process</strong></td>
<td>• Authorities seemingly not open with the wider public</td>
</tr>
<tr>
<td></td>
<td>• Great deal of information not available to the public</td>
</tr>
<tr>
<td></td>
<td>• Impacts of project not openly available</td>
</tr>
<tr>
<td></td>
<td>• Lack of clarity regarding studies and assessments done for the project</td>
</tr>
<tr>
<td><strong>Ongoing Interaction with the Community</strong></td>
<td>• Communities rarely interacted with by authorities</td>
</tr>
<tr>
<td></td>
<td>• Workshops held at the beginning of project</td>
</tr>
<tr>
<td></td>
<td>• Limited ongoing interaction between authorities and the public</td>
</tr>
</tbody>
</table>
Limited ongoing interaction between authorities and affected parties (see section 6.3)

Continuity Through the Process
- No continuity in level of consultation
- Most consultation at the beginning of project
- Lack of ongoing contact between authorities and public

Inclusion of Participation at an Early Stage of Decision-making
- HMR was decided upon without public involvement
- No consultation regarding preferred transport options
- Public only included ultimately once decisions made

Utilising Feedback Gained from Participants
- Public concerns commonly dismissed by authorities
- Consultation treated as a “complaint receiving” process
- Feedback not actively sought
- Feedback not incorporated into decision-making
- Feedback not sought from interest groups or non-governmental organisations.

The implications of this are numerous, with international experience and examples from the wider literature indicating that this failure may have significant impacts for the success of the HMR, and the future development of the city in general. Considering the results of the previous chapter, which signalled major failures in the governance of both the HMR and wider city affairs, the theory surrounding the role of consultation in mitigating these issues is important. Fung (2006) has suggested that when there are failures in the governance of urban space, the involvement of the public in this process can go a long way to mitigating those failures. When decision makers are deficient in their duties, lacking compliance and cooperation with one another, the involvement of citizens in processes of decision-making and governance can remedy these deficiencies (Fung, 2006). Of course, this depends somewhat on who, and to what capacity, people are involved. However, in the case of the HMR and Hyderabad more broadly, these considerations are defunct because the degree of public involvement in municipal affairs and governance is minimal. This highlights the significant failure of the planning process to include the public, because authorities feel public involvement simply hinders the decision-making process. Evidence would suggest, however, that the inadequacies of the planning and decision-making regime could have been addressed had the wider public, and interest groups, been able to have some role in the process.

With specific reference to developing transportation solutions, the absence of public participation is similarly concerning. It must be reinforced that the Metro Rail had been
chosen as the transport solution for Hyderabad well before the public had any knowledge of the development of a transportation alternative in the city. This is worrying given that theorists have indicated that where the needs and desires of the public are gathered and included in developing transport solutions, more options are commonly developed, and community support of those options is generally far greater (Booth and Richardson, 2001, de Luca, 2014). Further, public involvement in the early stages of project development alleviate many of the resourcing, efficiency and financial challenges which can come about as a result of aspects such as agitation and a lack of patronage (Gil et al., 2011). Similarly, de Luca (2014) indicates that the public consultation process in transport planning, can act as an educational experience for many people. This can lead to an understanding of the impacts of personal travel behaviour, and a wider discursive shift regarding the use of private transport versus public transport. In addition, evidence from Gil et al. (2011) has shown that when the wider public feel included throughout the decision-making process, they are far more likely to identify with those decisions, resulting in greater patronage for transportation solutions. Given the public hasn’t been included in the project, and the associated discontent regarding the whole Metro Rail development process, evidence suggests that the HMR could face serious implications due to the inability, and unwillingness, of HMRL and L&T to enter into open and meaningful public participation. Although conversely, given the necessity, pragmatism and increased mobility associated with using the Metro Rail, as will be outlined in chapter 8, the public may utilise the Metro Rail regardless of their viewpoints on the public engagement process.

I would argue that the work of Booth and Richardson (2001) highlights the predominant reasoning behind the lack of public involvement. They suggest that three broad barriers exist to the inclusion of the public in decision-making processes, and all three of these have resulted in the exclusion of the public from a project which is supposedly being developed to serve the public. Firstly, Booth and Richardson suggest that organisational culture is a top down one which is driven by experts. Certainly this is the case in India, where the bureaucracy is held in the highest regard, and those with technocratic knowledge are the paramount in their field. There appears to have been an attitude from implementing authorities that they are the experts in their field, and that inclusion of the public in the process cannot contribute anything meaningful to the technical discussions
surrounding the project. However, theorists have clearly shown this not to be the case, as discussed above.

Second, they argue, is that the overriding political culture holds the political elite as the democratically elected representatives of public opinion. This has created a decision-making process where the politicians are the representatives of the public voice. Because these officials have been elected by the public, the public have entrusted them to make decisions on their behalf. Therefore, wider consultation regarding decisions such as the Metro Rail are irrelevant. However, as the previous chapter has shown, even the relationships between these political elite, and the technocratic planning arm of municipal affairs has often failed. This has resulted in a system where there is major fragmentation between the political decision makers, and the technocratic elite, causing the major lack of coordination which was noted in the previous chapter. Essentially, the public voice becomes lost within internal conflicts in planning and political decision-making organisations such as HMRL, HMDA and GHMC.

Lastly, Booth and Richardson argue, is that transport planning and associated decision-making has long since operated within a distinct silo. This has resulted in the links with other disciplines being ignored and failure to build upon the lessons from those other disciplines. In Hyderabad, this ‘siloing’ has resulted in transport planning as an academic field impacting upon the development of the Metro Rail process, and consequently, the level to which the public are involved in that process. The failure of transport planning in Hyderabad, like many other places, has a basis in the absence of comparisons with correlated experiences or disciplines. This has significantly impacted upon the effectiveness of the decision-making process, and it can be argued that as a result, the public has been forgotten in the wider malaise which has occurred surrounding the decision-making for the Metro Rail project.

It is obvious from the findings that the inability of agencies such as HMRL and L&T to enter into meaningful public participation, in no way comes close to achieving good practice implementation of a project like the HMR. The scale and significance of the project is such that meaningful engagement with the public regarding their views, concerns and suggestions for transport solutions was imperative. Not only has this exclusion of the public resulted in citizens being uninformed, and generally unaware of
the impacts of the project, but also has the potential to have major implications for the success of the HMR going forward. As shown in the previous discussion, the unwillingness of HMRL and L&T to enter into meaningful public consultation could lead to impacts on patronage and support of the project, and has already caused significant agitation throughout the city. The sections which follow highlight this agitation, and the implications of failures to consult with not only the general public, but communities whose day-to-day lives are being affected by the project.

6.2 Affected Party Consultation

Ongoing consultation and negotiation with affected parties is a key element not only in the participatory process, but for planning in general (Bai et al., 2010). Negotiation between affected parties and authorities is common place in projects of such magnitude as the HMR. Expanding upon the failures of the wider consultation process as above, the HMR has also failed in respect of this ongoing negotiation, with significant implications for all parties. This section outlines that communication between HMRL, L&T and affected parties has been severely lacking. Further, it will outline that these inadequacies have led to impacts on the efficiency of developing the HMR, negative outcomes at the community scale, and has potential to have significant impacts on the future operational success of the Metro Rail. These findings are underlined through the experiences of key informants from the three micro case studies; Sultan Bazar, Ameerpet and the Secunderabad ISKCON temple.

A key finding was the lack of an iterative consultation process between affected parties and Metro Rail authorities. Sentiment from case study communities indicate they were disappointed with the linear nature of their involvement in the project. Rather than an ongoing process of communication and negotiation, there appeared to be little of either. This is indicated through the viewpoints of key informants, as identified in table 8 below.
<table>
<thead>
<tr>
<th>Key Informant</th>
<th>Viewpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>They don’t care, they say they have taken everything into consideration, and then where is the dialogue? By and large they say we don’t have to talk to you, and don’t require any government clearance.</td>
</tr>
<tr>
<td>4</td>
<td>They are not authorised to bargain or anything. No discussion. How can you do this? The law is there and you are bound by this!</td>
</tr>
<tr>
<td>21</td>
<td>When we talk personally, they tell anything, but when it is in media there is nothing... They will do like this, and they will do like that. There is nothing black and white that they give us. It’s all just verbal and words. How far do we trust them? If they think have valued (us), they would have come in front of us and given us in writing this is what we will do, and this is our commitment.</td>
</tr>
<tr>
<td>5</td>
<td>The ‘road cutting master plan’ was 6-7 years ago but we didn’t get any notice until now. Just saying they are going to cut, and then they marked the space for demolishing. They made the plan but nobody showed it to us, nobody came, no higher officials came. There were no planned negotiations at all.</td>
</tr>
<tr>
<td>14</td>
<td>Can you imagine, I will call them rascals and you can quote me, no matter how much you talk they do not listen. Imagine the absurdity, that still up until this point they maintain that they are taking only open land. Currently as it stands, this room is going and do you think that this is open land? Does this look like open land to you? There is something called low class and there is something called no class, and what we are dealing with is no class.</td>
</tr>
<tr>
<td>20</td>
<td>From my understanding they just don’t want to work on it with us. If they worked on it they could do a lot of things.</td>
</tr>
</tbody>
</table>

The viewpoint of affected parties appears to be that negotiation with HMRL has been a one way process, where they do not feel heard, and where their concerns are simply ignored. It seems to be a process where affected parties cannot enter into a candid conversation regarding their issues, viewpoints, and concerns about the project. Rather
it appears to be one where decisions have already been made, and the public must live by those decisions, despite having no input into the process.

One of the serious implications of this unwillingness to consult meaningfully has been widespread uncertainty for communities. In all three case studies, concern and insecurity existed regarding how to proceed, given the decisions being made without their involvement. At the ISKCON temple, concern was apparent regarding what the future held for the temple and the wider community which utilises the temple on a daily basis, and this community actively agitated against compulsory acquisition of their land (figure 21).

While key informants from within the case study indicated that some discussions were ongoing with Metro Rail authorities, there was a sense that HMRL were not understanding, or acknowledging the concerns and complaints of the temple’s community. Given the wilful ignorance shown by HMRL, the temple faced considerable uncertainty as a result of the threat from HMRLs compulsory acquisition of the temple grounds:

Their contention has been that it is going through open lands and it is not affecting the temple… But our contention was that the temple is defined as everything including the utilities, just like your house is not only your bedroom but your study, your kitchen, bathroom is the entire house… Just like your body is simply not your head, your nose, your toes it is all your body. So they are saying really, we are chopping off your legs, your arms but we are not affecting your body. So naturally, we have been strongly objected to that and even up until this day they still maintain that they are not affecting the temple. (Key Informant 14)
Further, in both Sultan Bazar and Ameerpet, development of a number of businesses had halted due to the uncertainty. Because information is difficult to obtain, and Metro Rail authorities appear unwilling to enter into ongoing negotiations with traders, there is a significant impact on the investment that shop keepers are willing and able to make. Due to the immediate threat of land acquisition, shop owners are reluctant to make business related decisions such as purchase stock, make shop improvements, or generally develop their business:

They are not telling us the date also when they will come…there is no compromise, no altering of the mark. [We are] not able to do anything to take the business forward because of uncertainty, because of things like furniture. We aren’t able to purchase new stock also. (Key Informant 7)

Until now they have not given any notices or any dates or anything. First they are to complete Corridor-1 and Corridor-3. After this has been done they will start this work they say...There is a lot of uncertainty. (Key Informant 19)
See we have conversations with [HMRL]…they are giving assurances, but there is absolutely no commitment being made...Absolutely, there is massive uncertainty. (Key Informant 21)

It is evident then that the consultation process, and the failures of that process are having significant impacts on the day to day lives of people in Hyderabad, regardless of whether the land acquisition has occurred yet or not. The failure to iteratively converse with affected parties is something which has been a significant failure in this project and indicates a degree of ignorance from Metro Rail authorities.

One of the interesting aspects highlighted throughout the research were the benefits of consulting more openly with affected parties for HMRL and L&T. Of particular note in relation to this are the concerns which affected parties continue to have regarding the viability of various aspects of the Metro Rail. For example in Sultan Bazar, traders indicated that the wider community would simply not support or use Corridor-2. The traders were firmly of the belief that the short nature of the route, cost of travel, wait time, and commute time would result in the communities around that route retaining the use of private vehicles. The traders also indicated that when people did use the metro, it would simply free up the road for an increase in private vehicle users, and they didn’t believe that the metro would be well utilised along this route. The failure of HMRL and L&T to enter into an ongoing and iterative process with affected parties has had significant impacts on all involved. As Bai et al. (2010) have suggested, when meaningful deliberation is entered into the benefits for all parties are quite significant. Particularly in this case the wider public, and affected parties, had the potential to mitigate a number of the shortfalls in the planning process as outlined in the previous chapter. Similarly, Fung (2006) suggests that by including the public in the process the shortfalls in governance are often mitigated, and given that governance failures are among the most prominent findings of this research, the involvement of the public in the process may have mitigated a large number of these failings.

In excluding the traders in Sultan Bazar, HMRL and other Metro Rail authorities have failed to uncover what is essentially a vital flaw in the development of the project. It has been suggested that short routes, where these service lower income communities, has resulted in highly decreased patronage (Winston and Maheshri, 2007). Therefore, if the
consultation processes for the project were undertaken with more vigour, these challenges may have been able to be investigated and further studies undertaken. The international experience would suggest, alongside the indications of the wider community, that investigating local support for that route would have been pertinent.

A further issue compounding the inadequacies of meaningful consultation, have been the inflexibility of HMRL and L&T when communities have suggested alternatives. Particularly in the ISKCON and Sultan Bazar case studies, suggested alternatives appear to have been dismissed out of hand by authorities. For example, ISKCON, with support from South Central Railway, developed and presented an alternative route to HMRL officials. This route would have resulted in avoidance of the temple structure, and while it would have required acquisition of a number of other buildings, it would have ensured that religious temple grounds would not have been disturbed. Figure 22 highlights the alternative put forward by the temple community.

Figure 22. Alternative alignment for ISKCON Temple grounds. Current route in red, proposed route in white. Source: ISKCON Hyderabad (2014).

In Sultan Bazar, the traders presented a memorandum to Metro Rail authorities which included a number of potential alternative routes for the metro. These routes would
avoid demolition of the Bazar, and traders argued, would have resulted in higher patronage. However, the traders have contended that these alternatives were simply dismissed out of hand by HMRL and L&T.

There appears to have been an ignorance, and arrogance, about the manner in which the Metro Rail has been undertaken without consulting affected parties. Regardless of the positive impacts of the Metro Rail for the city, a staggering number of people across Hyderabad have been, or will be, affected by the project without being able to have their needs and concerns heard, let alone catered for. This debate has little to do with the relative merits or otherwise of the HMR, and everything to do with the ability of Hyderabadis to avoid significant disruption and impact on their day to day lives.

An example which highlights the attitude towards affected parties, and the arrogance and ignorance of HMR authorities is the closure of a number of schools on the Corridor-1 route. Key Informant 8 highlighted the example:

…there are four government schools…in the middle of the academic year they threatened they must vacate within one week, you have 1500 students coming from poor families in well-established schools, so where will they go?...they are just in a hurry to demolish. Three schools they are shifting to alternative buildings and then they will demolish, but fourth schools…there is no alternative shown and now they are saying within seven days you must vacate…in one month they will have exams, this is the arrogance of the authorities and the government. Government is not implementing their responsibility but depriving them of education

While an extreme example, there appears to be an ignorance of the impacts which the HMR is having on communities throughout the city. Numerous key informants indicated that authorities seemingly didn’t understand the issues being faced as a result of the project, and didn’t believe that negative impacts were in fact occurring. This is a hugely problematic discourse through which to approach a project of this nature. Without recognising and understanding the problems being faced in communities, there stands to be an exacerbation of the impacts being felt, and an unreasonable response to those impacts.
I argue that this has a great deal to do with Silverman’s (2005) theories surrounding power relations and positionality in society. The perceived superiority shown by Metro Rail authorities, lies in the power which HMRL and L&T currently wield within the city. The organisations are reluctant to concede any decision-making power, or alternatives to ‘common citizens’, or it seems the planning authorities. The inherent power struggles and class systems within India’s cities produce an inherent disadvantage for those of lower socioeconomic status. These groups are therefore more likely to be exploited by powerful corporations, and it has been suggested the impacts are more keenly felt by these groups (Vasconcellos, 2001).

The distinct lack of empathy and willingness to communicate shown by HMRL and L&T with affected parties is staggering. It represents a major failure in ensuring that the Metro Rail is developed and established with regard to best practice planning principles. It further highlights that the Metro Rail’s implementation has been undertaken simply with the outcome in mind. The process has been neglected, with significant impacts on all parties involved, as has been shown in the presented findings thus far. However, as the following chapter will show, these deficiencies in the planning approach and engagement with the public, have significant impacts at the community level. This further highlights the ignorance of Metro Rail authorities in developing Hyderabad’s ideal transportation solution.

6.3 Conclusion

The results show that there has been, and remains, a significant shortfall in the consultation procedures undertaken for the HMR. To a large extent the process undertaken is no different from many throughout India, as the consultation process is driven by the Land Acquisition Act. However, given the planning failures outlined in Chapter 5, the consultation process was an opportunity to uncover issues that were not discovered during the pre-planning phases, and learn of the potential impacts which may be felt by wider communities. The consultation process in this case has been used simply as a way of receiving complaints from affected parties, and seemingly dismissing these concerns out of hand. The approach to consultation appears ignorant of community needs, and arrogant towards the concerns raised by those communities.
Rather than treating the process as a ‘complaints receiving’ procedure, the consultation should have been used as an opportunity to improve efficiency in the project by uncovering and discussing community issues before they were raised through agitation. This is the circumstance in the case study communities where extensive consultation with affected parties could have, and most probably would have, saved HMRL and L&T significant time and resources which they now face due to community agitation against the project.

I am certainly not suggesting that the consultative procedure solves all of these issues, but evidence would suggest that open discussion with affected parties creates more satisfactory outcomes for all parties involved. If concerns were dealt with in a responsive manner, the delays experienced throughout Hyderabad and the extra resources expended, would have been lessened.

This chapter has then shown that the consultation procedures for the HMR have been severely inadequate. What’s more, the consultative process has been seen as a hurdle rather than a useful tool for all parties. Ultimately, this mind set has been detrimental for both the implementing authorities and people throughout Hyderabad. In isolation, failures of the consultation process are seemingly unrelated to the wider implications of the project. However, central to this thesis is that ultimately the combination of failures in planning, and inadequacies in public involvement, have led to exacerbated consequences on the livelihoods of communities throughout Hyderabad. The following chapter will therefore outline these impacts, and how they result from wider failures in the consultation and planning processes.
Chapter Seven: Community Scale Impacts

There are two words in English; progress and development. We are not thinking of progress, we are thinking of development. What happens in development is economically focussed – a group of people will benefit. With progress everyone benefits, but they do not think of things this way, and they do not think of individuals and society. They think of the very few who will get the benefit.

Key Informant 2

The previous chapters have discussed how organisational and consultation issues have arisen during development of the HMR, and how these have contributed to unsatisfactory planning outcomes. This chapter has a specific focus on how these issues have contributed to impacts on low to middle income communities, who are being marginalised through the planning and decision-making process. In addition, the chapter will discuss the impacts which the project stands to have on the built heritage of the city, and progresses to discuss the implications of the project for the mobility of Hyderabad’s residents. Lastly, evaluation of the TOD associated with the metro will be analysed and potential implications of this process raised.

The evaluation of these issues will stand to show that the HMR is placing significant financial strain on a number of communities across Hyderabad. These communities have little economic resilience, and the impacts likely to be felt by the metro project could have significant social implications throughout the city. The chapter will also show that there has been a significant contention regarding the exploitation of the Hyderabad’s built heritage resource, and that the cultural fabric of the city has been disregarded in pursuit of a world class city image. While these impacts are significant, the chapter will also highlight that the HMR stands to improve Hyderabad’s transportation system, improving mobility for large numbers of urban dwellers. Evidence will show that the mobility of Hyderabadis is likely to improve, and they are generally optimistic that positive change will come about as a result of the project.
There is particular optimism regarding the economic development of the city, and the increased mobility which the project will afford people and their livelihoods.

7.1 Land Acquisition & Compensation

Land acquisition, and compensation for seizure of that land, is a highly contentious issue within Indian planning and urban affairs (Narain, 2009). It is imperative that projects of such scale and significance as the HMR utilise land acquisition methods, however, these processes are inevitably contentious. The results of this research suggest that land acquisition and compensation processes have been highly contentious and led to numerous impacts on communities throughout Hyderabad. Issues of inadequate compensation, and the exclusion of renters from the compensation model, are having significant consequences for communities throughout the city.

One of the key challenges in implementing the HMR has been the need to acquire public land for construction of the metro. This has required an extensive land acquisition process, and associated compensation of affected land owners. It is key to note that only land owners are compensated in land acquisition processes, and the impacts of this on renters and business leaseholders are significant. Key Informant 9, a key figure in the land acquisition process for the HMR project indicated that thus far “88,048 square yards covering 814 properties have been acquired, and an amount of Rs.3,791,846,736 [NZ$73m] has been paid as compensation”. The same individual also believed that the land acquisition process had been “implemented fairly and in accordance with the provisions of the Land Acquisition Act.”

However, Key Informant 9 also indicated the key problem with the land acquisition process in the project:

…almost all of the affected properties exists on road side covering commercial and business firms, and the majority of the properties are in possession and enjoyment of tenants. These tenants are not willing to vacate land in spite of the owners already having given consent.
The prominent finding regarding compensation, was the vastly inadequate amounts being reported by affected parties. This is exemplified by the key informants perspectives indicated in table 9 below, who have all been affected by land acquisition processes by the project.

Table 9. Viewpoints of key informants affected by land acquisition.

<table>
<thead>
<tr>
<th>Key Informant</th>
<th>Viewpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Informant 7</td>
<td>They are giving far less than what the value of the shop will be. If we sell it to someone else according to the value, we will get more than one crore [NZ$200,000]. The value they give is just twenty lakhs [NZ$39,000]...we just receive the government value and this is much less than we need. This is a family business, and this all affects this.</td>
</tr>
<tr>
<td>Key Informant 19</td>
<td>We get nothing. Only the building owners get compensation and I am a renter. For me they give nothing...they don't give us anything, only they tell us compensation they will give. Okay fine the compensations, but this is only for business owners. What about footpath vendors, renters, workers?</td>
</tr>
<tr>
<td>Key informant 5</td>
<td>[There is] no compensation for anyone but the owners...they don't have plans to relocate us because space is very precious here.</td>
</tr>
<tr>
<td>Key Informant 22</td>
<td>One more thing, when we go to the government the value is different, when government wants to compensate the value is different so how is this possible for us now. If they give us the money its only peanuts, it’s just peanuts, nothing like what we can get.</td>
</tr>
</tbody>
</table>

The inadequacies in compensation were also highlighted by a journalist, who did extensive investigation of the development of the Metro Rail:

They went about the planning and they were disingenuous maybe, and told certain people that they were just going to kick them out of their premises and weren’t perhaps compensated in a full or fair amount. (Key Informant 16)
This is significant given the high rate of business owners who are tenants and that as tenants, they have no rights for compensation. The socioeconomic impacts of this combination are vast and the following sections will discuss the implications of this, the land acquisition process, and how communities within the city are reacting to these issues.

### 7.2 Socio-economic Impacts

Both Sultan Bazar and Ameerpet show signs that consultation failures, and the poor decision-making and planning regime has resulted in impacts on the viability of businesses and the livelihoods of the wider community. These case studies highlight two significant problems in terms of the HMRs impact on community level traders in Hyderabad. The first is the displacement of businesses from traditionally significant and vibrant trading areas in the city. The second is the substantial number of traders in these areas who rent the buildings within which their businesses are located. This is problematic because of the ineligibility of renters to receive compensation, as highlighted in the previous section. Both of these issues are hugely important given that Sultan Bazar and Ameerpet are two of the most crucial trading areas within the city.

Key informants across both Ameerpet and Sultan Bazar indicated that the impact of the HMR on both individual traders and the wider area would be detrimental, and have wide reaching impacts. Table 10 below highlights some of the key concerns raised by traders in Ameerpet and Sultan Bazar.

**Table 10. Key Concerns from Traders in Sultan Bazar and Ameerpet.**

<table>
<thead>
<tr>
<th>Sultan Bazar</th>
<th>Ameerpet</th>
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</thead>
<tbody>
<tr>
<td>It only benefits to the L&amp;T Company. Through them, some income will be going to government. After the term it will be there, so in time L&amp;T will take income and after that the government will be handed over. Only until that time only those 2 will benefit and for the public purpose it is lost. (Key Informant)</td>
<td>After the cutting [of the road] what I will be getting is five percent of the space I have now...almost all of the shop will be gone and nothing will be able to happen here” (Key Informant 5)</td>
</tr>
</tbody>
</table>
They are thinking about the benefits for a few people and getting wealth to more people. Not only owners, renters, vendors, workers, their families, there are 1 lakh, 2 lakh people who will be affected. From my shop alone 70 people will be affected. In one family there are 10 members, next day there is no income. How about the food we eat? (Key Informant 20)

<table>
<thead>
<tr>
<th>19)</th>
<th>The capital [income] will be blocked, the salary of the salesmen will disappear...if my shop is closed it means people will go elsewhere, and I will lose customers (Key Informant 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20)</td>
<td>Where am I to go? That’s what I’m asking the government. I’m only asking for my shop will it be demolished and where am I to go? I’m asking this too? Almost 180 members in our association and we are all asking this question. (Key Informant 19)</td>
</tr>
<tr>
<td>21)</td>
<td>“You know right now [Ameerpet] is one of the top markets. More than eighty percent of the buildings they have marked [for demolition]. So Ameerpet will definitely go downhill. The Metro Rail will have a negative impact on the business here” (Key Informant 7)</td>
</tr>
</tbody>
</table>

Lakhs of people who own the businesses they will have to move from here... So more impact for shop keepers, owners and other encroachers. That is the most impact, because it is a commercial area. Where the metro train is coming, it is in commercial area so therefore more impact. (Key Informant 21)

In analysing the impacts of displacement, it is important to consider the resilience of traders in both Sultan Bazar and Ameerpet. The impacts on the traders has to be viewed in the wider context, taking into account multiple factors. It is not simply inadequate compensation which is problematic; displacement means that a large proportion of them will have to relocate their entire families, and start businesses from scratch which have been running for many years. For example, Key Informant 19 stated that “this shop has been running 40 years and my forefathers continue this business and now I have to go from here and put a new shop in new place so we have to start from zero”. This sentiment was reinforced by a number of key informants who indicated the problematic nature of relocation:
We will become zero. Nothing. We will have to restart from a, b and c, which is not possible in such a competitive market because things are really expensive. If I go and have the same shop, the amount of investment I will have to place and the return I am going to get is totally poor. (Key Informant 20)

…the permanent customer also we might lose. I will have to start again. (Key Informant 19)

That is financially very tiring you know. Starting a building and starting a business from scratch. (Key Informant 5)

Interviews with affected parties suggest that regardless of the amount of compensation, relocation is highly challenging for traders in both case study locales. When considering this in tandem with the supposed shortfalls in compensation being received by owners, and the fact that no compensation is being received by renters, the impacts on the trading communities in these areas are exacerbated significantly. For example, Key Informant 19 highlighted the issues being experienced in their business:

If metro comes the shops will be demolished and how can we leave? In my shop there are twelve persons working and they will lose their jobs and find new jobs. Everything by metro they wanted to demolish small shops and build malls.

The number of people who stand to be displaced by the project is significant, although concrete figures are difficult to come by. In Sultan Bazar, approximate figures calculated through field work indicated that as many as 9000 people may have to relocate if the HMR Corridor-2 is implemented in the area. These figures were arrived at through the calculations in figure 23 below:
Some traders believe that the number of displaced would actually be far higher than this with a number of key informants indicating the number could actually be close to 100,000.

In addition to the direct impacts on traders are the indirect effects which may be felt by the wider community. Key informants suggested that Sultan Bazar forms an important shopping district for Hyderabad’s lower classes. A prominent theme for all key informants from the Bazar was that it is an area where you can buy goods from 10 rupees to 1 million rupees, and that because of this it is hugely important for people “whose per capita income is below 5000 rupees [NZ$100]”. Supporting this, Key Informant 19 highlighted the importance of the Bazar for wider communities:

If someone wants to come from a village and buy things for minimum rate, he will only come here. In other areas like Abids, Ameerpet or Hitech City, he will pay more, costly items. Here, you have cheap and quality also. That’s why government is looking at this kind of space to maybe demolish and high level malls they want to put up and take the rents from the renters and that’s the difference.

Figure 23. Calculations of Sultan Bazar displacement numbers. Source: Author (2014).
If the market is lost, then low income communities are likely to have to spend more on similar items elsewhere, and costs would be further increased by commuting to other markets. The wider community around Sultan Bazar relies on the trade which the area attracts, and the loss of this resource would not only be significant for the traders and their families, but also the wider communities which surround the Bazar.

Another of the issues which needs to be considered, are the impacts on Hyderabad’s informal sector:

What about footpath vendors, renters, workers? Like this footpath, almost 600-700 people doing business here too. Before our shop only they are putting this kind of thing, they take no rent, their families you know just let them continue and so we let them stay there. But if they demolish where are they meant to go? That’s even more people being affected due to this metro. It benefits 1-1.5 lakhs [100,000-150,000], but what about the loss to people like us? The business, the jobs, we are people too you know. (Key Informant 19)

The research indicated two main components of the informal sector which stand to be impacted as a result of the HMR. The first are the hawkers which are prevalent throughout most of the city’s markets and trading areas. The hawkers play an important part of the informal economy, and rely on the foot traffic created by existing markets and trading areas like the Bazar and Ameerpet. With customers leaving these areas as a result of the HMR, or shifting towards mall based retail as a result of TOD, there is likely to be a significant impact on hawker populations in the city, and those who rely on informal sector income.

Field research yielded little data in relation to the tangible impacts on the hawker population of Hyderabad, and local academics insisted that this area is highly under researched in general, and by the government, HMRL and L&T in understanding the impacts of the project. However, key informants from Sultan Bazar raised the concern that part of the proposal to implement Corridor-2 in the area was to actually remove hawkers, in favour of developing large scale retail developments, from which rent can be attained from tenants. A key urban academic from Hyderabad also stated that
All the street vendors will be displaced, because if everything will be available under one roof, why will they want to go somewhere else. That is the move the government is going to make. At the movement keep the prices low and once they get rid of all the street hawkers and vendors, increase the price. (Key Informant 3).

While to some extent this is conjecture, the rate and high proportion of large scale mall developments in tandem with the development of the HMR suggests that regardless of intention, hawker populations may suffer significantly as a result of the metro and associated TOD.

The second key area of the informal sector which could be impacted by the HMR is the informal paratransit sector which operates throughout the city. Field work showed that the impacts on paratransit could be significant, yet have been significantly under researched by HMR implementing authorities. Key Informant 1, an academic involved with the study of planning in urban Hyderabad indicated that

“[paratransit] supports about one million people in the city directly in terms of direct livelihood support. You have about 98,000 three wheelers in the city to be precise…then you have seven seaters on the periphery. In terms of direct livelihood earning you are looking at about five to six hundred people directly dependent for their daily bread on this. Plus you have another 500,000 people who are dependent on this for commuting and it could be even more who are directly dependent on this for moving commodities in the informal market…you are looking at a million people and we know nothing at all about how this works [with the HMR] and no plans about how to reorganise this”.

So while we know little about the potential impacts of the Metro Rail on the paratransit industry, we do know that the latter industry plays a role in the livelihoods of a considerable amount of Hyderabadis both in terms of providing income, and in commuting throughout the city.

Pucher et al. (2007) has highlighted the importance of paratransit in providing commuting solutions for the urban poor in congested cities. Indeed, observations during
field research would suggest that the urban lower and middle classes have significant reliance on modes of paratransit for commuting throughout Hyderabad, and the role which this mode plays cannot be understated. Both Pucher et al. (2007) and Low and Banerjee-Guha (2003) have indicated that paratransit has increasingly struggled in contemporary cities, as other modes become available and policy shifts actively discourage the paratransit industry from playing a role in urban transportation. Pucher et al. (2007) has argued that this policy stance has typically been taken due to the perceived safety issues regarding paratransit and driver behaviour in congested cities. In considering these observations in tandem with wider theory and key informant evidence, it is clear that paratransit has a significant role in the transport sector in Hyderabad. It should be hoped that the impacts of the HMR are not significant, because as discussed the project requires considerable assistance in terms of integrating into the wider transport system. I believe that this current disintegration with other modes of public transport such as the state bus service, and local trains could mean that the paratransit industry has a larger role to play in the transport network until wider integration is completed. If a more cohesive transport network is developed, the role of paratransit in Hyderabad may come under increasing threat if not suitably incorporated into complementing the Metro Rail and wider transport modes.

7.3 Heritage Impacts

One of the most contentious elements of the HMR has been the supposed impact on Hyderabad’s heritage and cultural resources. Many have claimed that the city’s heritage is being forgotten in pursuit of a world city image. Further claims have suggested that planning organisations and HMRL have undertaken the project with no regard to the heritage of the city, or the importance which is placed in it by Hyderabadis. This section will outline the results found during field work in relation to heritage, and the significance of this for heritage.

The research identified two key concerns which appear to have developed regarding the impacts to the heritage of the city. The first is the actual destruction of key heritage resources such as the market at Sultan Bazar. The second are the impacts on the amenity values of heritage features, as a result of the HMR being elevated. There appeared to be
mixed views on the degree to which features are being damaged, as indicated in figure 24.

"Physically, an elevated corridor going through the City will massively deface the City...so physically this project is anti-history and anti-heritage" (KI8)

"They do not look at the history...they also have metro in Delhi, Kolkata...no demolition, some areas they demolished...but nowhere impact like this [HMR] would have (KI19)

"One thing is that the heritage is lost...if they destroy it, what will be left of the old Hyderabad City? (KI3)

"India is a developing country, and you can't stop development in the name of heritage" (KI21)

"One could make an emotional case against the metro using heritage...but that's just a rouse, and not a substantive critique of the metro" (KI1)

Figure 24. Converse Opinions Regarding the Heritage Issue. Source: Author (2014).

A number of key informants indicated that heritage was being significantly impacted throughout the city, predominantly because of the elevated nature of the HMR. The key informants in this position believed that not only was there to be destruction of city heritage, with Sultan Bazar the key example, but also that buildings such as the State Assembly building would be adversely affected because of the close proximity of the Metro Rail. Arguments appeared to be based on impacts to the amenity values of heritage, rather than the Metro Rail undermining the structural integrity of these heritage buildings.

They don't have perspective or respect of the heritage buildings in the city, in front of the assembly it goes over ground and over the MJ market it goes over ground, which is a 100 year old market and pillars are being put up everywhere. (Key Informant 8)
You don’t have to demolish any heritage building specifically to do damage to the history of the city. But in front of these heritage buildings, you take this corridor then you are damaging the heritage. (Key Informant 8)

Even in Bangalore and Delhi the metro has gone underground near certain heritage structures. So that luxury also we are being denied in Hyderabad. (Key Informant 22)

Observations during field work confirmed that the HMR alignment takes it within close proximity to a number of iconic heritage buildings. The visual impacts to heritage buildings and other features are, however, a highly subjective issue. Assessing the impacts of the metro on built heritage, is highly dependent on the values which one attributes to the heritage resource. For example, some have argued that the elevated nature of the Metro Rail detracts significantly from the built heritage in the city, and is effectively mismanagement and degradation of that heritage. However, others could suggest that the Metro Rail’s route simply highlights a city which can balance its historic heritage and future direction of modernism. This debate, as Garrod and Fyall (2000) have suggested, is highly values based. Because heritage, and the preservation of that heritage, is such a highly charged values-based debate, it is often difficult to reconcile the various viewpoints which exist in scenarios such as the one occurring in this instance. Hampton (2005) has highlighted that balancing the competing values which are inherent in the management of built heritage is one of the biggest challenges to authorities in contemporary cities. These debates appear to exist in relation to the development of the Metro Rail, and appear to be highly idiosyncratic. There does not appear to be a clear right or wrong answer in relation to this debate, and the intangible impacts on heritage in Hyderabad are too contextually specific for this research to make a judgement on.

However, what can be measured is the destruction, or proposed destruction, of heritage features. For example, the proposed destruction of Sultan Bazar is a significant impact which would be felt by the city. The importance of the Bazar for local people has already been substantiated. However, the impact on the wider city image is something which has perhaps been ignored in Hyderabad. While a number of people noted the historic significance of the Bazar, the general feeling from participants and the wider
public appeared to be apathy and unawareness towards the loss of such a heritage feature. This appears to be symptomatic of the wider feeling and perception towards Hyderabad’s heritage.

Many people were aware of heritage features such as the Charminar, Chowmahalla Palace or Golconda Fort which are all major tourist attractions (see figure 25), but perhaps didn’t identify areas such as Sultan Bazar, the State Assembly or other historic markets as significant. A common sentiment expressed by the general public was that older parts of Hyderabad should not be a reason to prohibit crucial development which will better the city in many ways.

Figure 25. Iconic heritage buildings in Hyderabad: Golconda Fort, Chowmahalla, Charminar (from left). Source: Personal Collection (2014).

Indeed, an expert from a heritage based non-governmental organisation indicated that the value of heritage was often not recognised in the city, saying about heritage that: “It is valued by the locals [of that area], it is not known and valued by people. There are people in the city who live here and have not even seen Charminar and that is a living icon in the city.” (Key Informant 22).

The pertinent question is perhaps then, if the wider public do not place significant importance on these heritage features, should criticism be levelled at implementing authorities for engaging in the destruction of these resources? In absence of public involvement in the project, it is of course difficult to ascertain what the bulk of public opinion is toward this topic. I would argue that simply because the public are not highly aware, and appreciative of heritage, does not mean that losing the resource is not significant. However, the very purpose of public consultation and participation is essentially to incorporate the public’s opinions and desires into project development. If
the public do not feel strongly towards the preservation of such heritage, then arguments to the contrary are difficult to form from an outsider’s perspective.

A further argument suggests that the authorities of the city are prioritising the development of world class infrastructure over the maintenance of city heritage. Claims suggested that this was the case, and that state government policy has actively sought to soften the protective measures of heritage buildings in Hyderabad.

If it adds brand value then it will encourage the long distance commuters, they don’t care what will happen to the heritage, to the history, to the Bazars. (Key Informant 8)

There are about 152 heritage buildings, we have got a list of another 2000 buildings that can be declared as heritage buildings, and we are hesitant to pursue this as the government is de-notifying the existing heritage buildings. (Key Informant 3)

There was a heritage conservation committee whose term has expired but the government is not bothered to renew its term because they were not allowing the government to demolish buildings. (Key Informant 3)

These arguments suggest that government has actively sought to limit the protection of heritage. This would be in line with the ideology to transform Hyderabad into a modern city with a world class image. The loss of heritage features is something which is inherent within urban development of historically founded cities. It is almost an unavoidable side effect of transforming cities which have often been developed with poor infrastructure and building materials into modern urban environments. This has occurred to a large extent in other ‘world class cities’, such as Shanghai, where state intervention and bureaucracy has resulted in significant reduction in built and cultural heritage values, as a result of the push to be a leading Asian hub (Jilin, 2010). Therefore, part of the relaxation of heritage protection may well be to facilitate Hyderabad’s aim to become a world city, and the motivations behind this are clear. It is a well-publicised aspect of Hyderabad’s urban strategy to become a leading South Asian hub, and world class city (Greater Hyderabad Municipal Corporation, 2006). Certainly
the removal of low quality buildings and replacement with high quality, modernised architecture and development is something which is to be expected in line with such a policy stance.

The arguments which exist regarding the impacts on Hyderabad’s heritage are of course important in considering the negative impacts of planning and decision-making. Naturally, it has been a conscious decision to demolish certain buildings to facilitate the development of the Metro Rail, but this must be viewed in the wider context of the city. Given Hyderabad’s historic nature, and the scale of the HMR, it is almost unavoidable to damage aspects of built heritage. Also, given Hyderabad’s geology of hard underlying materials, it means that in most cases underground implementation of the HMR was unlikely to be a realistic option. This was the belief of HMRL in communications given to the researcher, between those who advocated for heritage protection in the Metro Rail project and HMRL themselves. The reality perhaps lies in between the arguments of those who say heritage is being fragrantly destroyed in the city, and those such as Key Informant 1, who as outlined previously in figure 24 suggested that the heritage argument was a “rouse” for other concerns. Those who value and advocate for Hyderabad’s heritage are passionate about, and genuinely care for the historic foundations of the city, and maintaining these links to its’ past. However, it is perhaps not realistic to believe that heritage will be maintained at all costs, constraining future urban development. As the following section will show, Hyderabad is in desperate need of a system to improve the mobility of its residents, and while heritage should be considered in the planning process, it cannot realistically be solely prioritised above all else.

7.4 Mobility

While this thesis has generally focussed on the negative impacts being felt as a result of the planning process behind the HMR, it must be noted that the project inherently has a number of positive impacts for Hyderabad and its urban residents. Principal among these is the drastic improvement to the mobility of Hyderabad’s people and the increased accessibility to areas of the city which previously would have resulted in lengthy and expensive commutes.
The HMR is likely to improve mobility and safety in what is an immensely congested city. Hyderabad struggles on a daily basis with the implications of a poorly planned urban area, with poor service provision in public transport. The addition of the Metro Rail will allow for urban commuters to travel in a safe, and efficient, transport environment. As Key Informant 1 highlighted:

…it will become possible for people to navigate the city in new ways, in shorter time periods…the goal of creating a city which involves shorter commutes, that would be realised, and it does change the way in which people experience the city itself.

Certainly the lifestyles of many of the city’s people are likely to benefit. As a key member of L&T highlighted:

The project is going to change the lifestyle of the people…people are going to save a lot of time and a lot of stress, which will be a very big boost to the public…it is not just a metro rail, for me it is a lifestyle changing project for the people of Hyderabad. (Key Informant 15)

The research indicated that for those communities who aren’t being negatively impacted, there appears to be a significant sense of optimism regarding the potential of this project to improve the daily lives of Hyderabadis. Even a number of the traders directly affected by the project noted the merits of implementing the HMR:

Yes, a good project. It will do good effect like in other cities in India. Everything [will be] comfortable, and present time not comfortable in Hyderabad. [Will be able] to go to job in good time, school and college in good time. There are problems, but after these it will be better. (Key Informant 3)

The project is good overall, we are not against all of it. (Key Informant 21)

Given that the HMR is capable of carrying 50,000 people per hour it operates (Hyderabad Metro Rail Limited, 2012), there are undoubtedly positive impacts on relieving congested transit routes, and allowing people to choose other modes of
transport, outside of an overcrowded and under resourced state bus system, paratransit and private vehicles.

However, the positive impacts on mobility cannot be considered in isolation from other factors; namely, the pricing and accessibility of the HMR for lower income citizens. Currently, it is claimed that Metro Rail fares will range from Rs.8 to Rs.19 (NZ$0.16 to NZ$0.39) (Hyderabad Metro Rail Limited, 2012), which would be comparable with existing bus transport costs throughout the city. However, the fare breakdown for routes and corridors is still unknown, and a judgement cannot yet be made on the affordability of the Metro Rail for lower to middle class residents. In estimating, however, it would be realistic to think that the Metro Rail is unlikely to be consistently affordable for many lower class residents throughout Hyderabad. If multiple fares across multiple corridors are required, it is unlikely the urban poor would be able to afford this cost. It may also be the case that it is in the best interests of the project to exclude these larger low income populations. If the HMR was priced so as to be affordable to the vast majority of Hyderabad’s eight million or so residents, the trains would be overrun and inefficient. Certainly, the balance between inclusion of these groups, and ensuring the mode itself runs efficiently and effectively is a key academic topic, but the scope of which lies outside of this thesis. Regardless, as is often the case in projects of this nature, it is likely that urban lower classes stand to suffer from a project which they are likely to find unaffordable, and have poor access to.

7.5 Future Economic Development

As discussed throughout this report, as a part of the PPP arrangement for the metro L&T have been given land throughout the city on and near HMR routes. This land is to be used for TOD which will generate revenue to make the development of the project financially viable. Larsen and Toubro Metro Rail Hyderabad (2014a) have claimed that TOD in Hyderabad has aims of “creating vibrant urban spaces integrated with a high quality transit system that enhances quality of life”. Through observations and discussions with key informants, it has become evident that a large proportion of this TOD is focussed on the development of large scale retail malls. This has the potential to spur economic development throughout the city and deliver increasing affluence for
many middle class urban dwellers. Conversely, there is an associated negative impact which may arise. The extensive construction of malls adds to an already sharp increase in mall construction, with ten new complexes opening since 2003. This development could impact the existing retail and commercial establishments throughout the city and evidence of this was found during research, with Ameerpet in particular exhibiting concerns regarding the future effects of mall development.

In Ameerpet the established small scale businesses and services could face increased competition from the malls which are to be developed in the area as a part of the TOD. Westernised mall and consumer culture has spread rapidly throughout India since the economic liberalisation of the 1990s (Mathur, 2010, Athique and Hill, 2010), and it is therefore unsurprising that the number of malls in Hyderabad have increased rapidly since this time. However, the location of TOD alongside and near Metro Rail stations poses a risk to established small scale businesses throughout the city, and this was evident in the case study of Ameerpet.

A number of key informants highlighted the threat which TOD poses, and how this process excludes many lower and middle classes. Key Informant 8 indicated that L&T will:

Put up malls and put in multiplexes, put in food outlets and encourage people to come and go from them during the day. So you travel by metro to visit the multiplex, shop and eat. This is what the Metro Rail is all about. So who will this cater to? A very small segment of the city’s upper middle class and some youth.

Other perspectives indicated that the development of malls in the city was not consistent with the mentality of Hyderabadi people, suggesting that “See here mall culture doesn’t exist. Lower and middle class fear going to malls because they feel in malls they will get only costly items” (Key Informant 21). If this is the case, much of the TOD being undertaken simply stands to serve the more affluent members of society, while having a detrimental effect on the commercial areas which cater to lower and middle class households in the city.
However, Key Informant 18, a prominent media reporter on the HMR suggested that without TOD, the system wouldn’t be viable, and that the TOD model benefits the public:

The return on investment model is very difficult because you cannot make money, and cannot break even, by simply selling tickets. The public transport system should not be a burden on the public themselves, in terms of pricing and cost. Therefore, they [L&T] have to make a revenue model through some other means, commercial development.

In addition, rail based TOD has been proven to boost the patronage of the public transport system, and also provide facilitation of neighbourhood revitalisation (Lund, 2006), something which is desperately needed in many places in Hyderabad. In fact, theorists such as Litman (2007) have argued that rail based public transport is most suited to successful facilitation of TOD, and generating the positive economic development benefits which come in tandem with the process. Many areas of Hyderabad are certainly in need of amenity and aesthetic improvement, and a transport system which facilitates safe and easily accessible neighbourhoods. If the idealised scenario of TOD occurs in Hyderabad, the benefits of this to the city would be significant. Hyderabad Metro Rail Limited (2012, p.1) suggest that the project is more than a rail project, and that TOD is not limited to retail but to ensuring “hubs of social activity…and recreation.” This development has the potential not only to improve mobility in the city but also provide desirable places to live. The development surrounding metro routes and stations will go a long way to facilitating the development of the world city image which the GoAP are keen to impart as an element of the project.

However, an interesting dichotomy was raised by one key informant, who believed that city progress was being sought to benefit a few, rather than develop a city which is focussed on the needs of all:

There are two words in English, progress and development. We are not thinking of progress we are thinking of development. What happens in development is economically focused. A group of people will benefit. With progress, everyone benefits but they do not think of things this way, and they do not think of
individuals and the society, they think of the very few who will get the benefit.
(Key Informant 2)

These feelings were certainly reinforced by Key Informant 8 who felt that the development would “create more real estate and will also push up the prices of the lands beyond the reach of the middle class, but ultimately what the metro will provide is just…economic development for contractors and the companies”. So the feelings amongst some appears to be that TOD will make the areas of development increasingly unaffordable for lower to middle class residents. Prior research has shown that TOD related to infrastructure development on the scale of the HMR can improve the liveability and desirability of areas to live and work within (Lund, 2006, Rodrigue et al., 2006). This does, however, have the potential to create gentrification, where existing lower to middle class communities are forced out of areas because of the rise in property prices and associated rents (Lees, 2008). The affluent upper middle classes then move into these areas, resulting in a consequential displacement to the suburbs for poorer communities. It must be considered that this process would align with the drive to develop Hyderabad’s ‘world city’ image, and make it comparable with other Asian hubs such as Shanghai, and Singapore. Improving the aesthetic quality, infrastructure, and amenity values of key routes within the central city would enhance the desirability of these areas, and play a strong role in attracting new investment to these areas, and the strong IT hubs on the existing periphery of the city.

The concerns regarding TOD remain, however, and questions need to be raised regarding the impacts of this development on urban residents, and for whom is the development actually taking place. This section has shown that while rail based development can have significant positive outcomes for communities, and certain groups in Hyderabad, its presence comes at a cost. The development associated with the HMR has the potential to substantially affect small scale business communities, and also enact a change in the retail habits of Hyderabadis. The impacts on business owners would be significant, however, to a large extent this is a concern which will be left for the market to decide. TOD is an inevitability with this project and has occurred throughout the city, the impacts of this cannot be realistically determined until the entire project is completed and in full operation.
7.6 Conclusion

This chapter has shown that the HMR stands to have significant impacts on communities throughout Hyderabad. The case study communities, and wider examples of negative impacts have left the impression that the Metro Rail does indeed stand to ‘divide the political elite from the large mass middle and lower classes’, as claimed by Key Informant 8. In addition to the significant impacts likely to be felt in the livelihoods of affected communities, Hyderabad may suffer as a result of the tangible destruction of built heritage. The loss or damage to this heritage is an irreversible process which could detract from the vibrancy and character of Hyderabad. While city development is important, and research indicates the need for the Metro Rail is imperative, the methods of implementing the project have come at a significant cost.

The findings have indicated that authorities lack sympathy and reverence to the impacts which are being felt at the community level, and have seemingly valued the world city image over the retention of historic character. These impacts further highlight the significant failures of the Metro Rail authorities, and the wider planning system to effectively manage the project requirements and the implications of the project on Hyderabad’s people and resources. As has been argued throughout this thesis, I suggest that these community level impacts are being seen because there is a recession of the planning system, and of effective planning throughout Hyderabad, and in this project. The failure of planning, and the inclusion of the public in that planning process has directly led to, and exacerbated many of the impacts outlined in this chapter. In considering this broader argument the following chapter will summarise the overall implications of the Metro Rail in Hyderabad, and what lessons can perhaps be learned as a result of the failures which we see in the HMR project.
Chapter Eight: Conclusion

This research has analysed the extent to which planning has a role in the development of major infrastructure in Indian cities. There has been a specific focus on how planning is being utilised in wider city development, and what implications planning, or the lack thereof, has for city development. On a macro scale, the research has also investigated the impacts of planning decisions on communities, and how these communities and the wider public are aware of and engaged in the planning process.

The thesis has argued that the under-utilisation of land use planning throughout India continues to have serious implications for both urban development and communities. The HMR exists within a broader malaise – an Indian planning system which is struggling to provide clear strategic direction for urban decision-making. Despite this, the research has argued and shown that the local context, and local failures of planning and urban strategy, have exacerbated problems that India grapples with at a national scale.

Not only has the research exemplified the significance of wider theory relating to urban planning and development, but has built upon these by attempting to understand the theory in a number of different ways. This chapter will synthesise the key findings of the research and provide an analysis of these with relation to the research aims and key questions, and how the research has been able to utilise and build upon existing theory. Additionally, an update on developments in Hyderabad post fieldwork is provided given the constantly evolving nature of the research topic. The chapter also includes an overview of a number of potential future research avenues possibilities which exist given the findings of this current research.

8.1 Post-fieldwork Developments

Given the rapidly developing nature of the Metro Rail project, and the circumstances in Hyderabad, it is important to provide an update regarding the developments post field work. These developments are important as they link strongly with a number of the
arguments made throughout this thesis, and provide further understanding of the way the planning and decision-making systems work.

Since fieldwork has been completed, this part of Andhra Pradesh has become Telangana, changing the political situation and associated discourse considerably. Of interest as a result of these changes is the evolution of the Metro Rail project, and how these changes related to previous findings of the research.

Recent developments reported in media outlets have suggested that the new Chief Minister of Telangana is vehemently opposed to the HMR impacting upon the livelihoods of those in Sultan Bazar, and also affecting the heritage qualities of both the Bazar and the State Assembly building. As a result, the Minister has requested that the Metro Rail be taken underground in these locations, something which was strongly advocated for by heritage groups and traders in this research. This exemplifies the fickle nature of the planning regime, and the overwhelming power which the bureaucracy wields over the planning. The findings of my research suggested developments such as this were always a possibility, given that the planning system has been so undermined by the level of bureaucratic interest present in the development of the Metro Rail. This development also has significant implications for the PPP arrangement in the project. Any changes to the concession agreed between the state government and L&T must be paid for by the government, and compensation paid to L&T for the inconvenience of alteration. The requirement to now proceed underground in these locations has caused significant tension between the two parties, with L&T threatening to pull out of the contract, and suggesting the government take control of the project. This further highlights the inadequacy of the decision-making process, where unanticipated issues are now creating significant wastages in time and resources which could have been avoided if an adequate planning and decision-making framework was in place. It also further stands to highlight the importance of meaningful public engagement which, as argued throughout this thesis, has the possibility to mitigate extra resource and time expenditure such as in this case.

Another recent development with relation to the case studies has been a decrease in land acquisition at the ISKCON temple. An agreement between HMRL and ISKCON leaders has resulted in 400 square yards of the temple grounds, previously proposed for
acquisition, being omitted from new plans for the Corridor-1 route. This indicates a positive step in the negotiation process between authorities and community members, although still represents a negative outcome for the temple community, who were adamant they didn’t want to concede any of their grounds for the development of the project. It also poses interesting questions regarding the nature of negotiation for the project, and why HMRL ultimately conceded to ISKCON Secunderabad. The possible implications of this, and other potential research possibilities into such issues are highlighted in the following section.

8.2 Implications & Future Research Possibilities

There are a number of clear opportunities for future research which exist given the findings of this research. The possible future research topics look to build upon the knowledge which has been ascertained through this research, which has already built upon existing theory. Largely, these future research avenues focus on the outcomes of the HMR, and the legacy which this leaves Hyderabad, however, a number of possible research opportunities exist with regard to more broad issues at the national and international scale.

One key area of research is to consider the future impacts of the HMR and the ongoing implications for the case study communities which have been highlighted throughout this thesis. Further, it would be pertinent to assess the impacts of TOD and what the impacts of this development are on smaller scale businesses throughout Hyderabad, and the socioeconomic implications for low income communities in the city. Alongside these would be a continuing study surrounding the reform of transportation and planning in Hyderabad, and whether the Metro Rail becomes integrated within a wider transport network.

Returning to the discussion of the decrease in the level of land acquisition from ISKCON, there is an interesting research possibility regarding this eventual negotiation. Revisiting this case study would be pertinent to ascertain key features of that negotiation process, and ask a number of key questions. Pertinent would be inquiry regarding how and why there was a movement from bureaucracy. Understanding what
led to this decrease in land acquisition has the potential to indicate a great deal not only about the nature of the bureaucracy and its values, but an insight into how they operate for future reference.

Of broader interest would be a study into the positive impacts of public involvement in India. It would be interesting to ascertain examples of where public involvement had been used more meaningfully, and similar projects where it had not. This would enable an understanding to be developed regarding how public consultation provides benefits for planning and bureaucratic agencies, and could potentially raise awareness surrounding the merits of doing so. While this has been undertaken in the broader sense worldwide, little research appears to have been undertaken regarding the implications of the lack of public involvement throughout Indian planning.

8.3 Research Summary

The three key themes outlined in the previous chapters have resulted from the guidance provided by the overall research aim, and the key questions of research. This aim, and the research questions developed to achieve it are outlined below, followed by a summary of the results with relation to this, and their relevance given wider theoretical understandings of these issues.

The research questions were developed to guide the research and maintain a clear link between the research, and the aims developed for the research process. The research questions ensured the aim of the research was kept paramount throughout the research process. The aim of this research was to evaluate the role of the planning process in, and the community level impacts of the HMR. This aim was achieved through seeking answers to the following research questions:

1. What role has the planning process had in the development of the Metro Rail, and wider city development in Hyderabad?

   a. What aspects of the planning process have been inadequate in the development of the city and the Metro Rail?
2. To what extent have the public been meaningfully included in the planning process, and adequately informed about the development of the Metro Rail?

3. What impacts have there been on communities in Hyderabad, and what are the implications of these impacts?

Research Question One

It is clear through analysis of planning documents, and perceptions from both within and exterior to the planning system, that there are currently significant failures in the role of planning in Hyderabad. While there have been large scale reforms in the roles and responsibilities of planning agencies, this research has shown that planning is being misused, and the value of the planning process appears to be misunderstood. In isolation this is perhaps consequential only for those involved within that system, and once implemented will hold little relevance. However, when we understand this failure with relation to the broader theories which has framed the issue throughout the thesis, it is clear that these failures of planning have the potential to not only produce a negative legacy for the city and its people, but also to reoccur both here and elsewhere.

Planning decisions in Hyderabad are being made with little reference to the overarching guidance document in place to guide city development, the Hyderabad Master Plan. The lack of credence being given to this document points towards an ad-hoc decision-making environment with little strategic direction. Complicating this are the inadequate horizontal relationships which exist between planning agencies and between the various levels of bureaucratic and technocratic elite. What’s more, this inadequate system has led to an almost non-existent relationship between land use and transportation planning. In fact, the research has shown that often transportation decisions are being retrospectively actioned into land use planning documents, such as the Hyderabad Master Plan.

The HMR and the planning system within which it has been implemented have then indicated the hallmarks of failures not only in the broad governance of urban space, but the basic practice of land use planning. The current case study has confirmed the suggestions of planning theorists such as Litman (2014) and Panday and Jamil (2011).
that without clear linkages between land use and transportation planning, there are serious issues which arise. In this case, these issues have been the integration of the overall Hyderabad transport network, and the failure to strategically plan for transport in the city. I would suggest that the latter is perhaps among the most serious consequences of ill-considered land use and transport decision-making. Strategic transport planning is imperative in developing transportation solutions which are realistically able to solve the transport issues of both developed and developing cities (Colonna et al., 2012). Perhaps paramount among the findings of this research, and building upon existing theory, is that without a clear marriage of land use and transport planning, wider understandings of where a project like the HMR fits within urban development is very difficult to ascertain, and even more difficult to implement.

Consigning the role of the planning process poses a very worrying step for a city with clear ambitions to develop world class infrastructure and living, which are key components of being a world class city (Nastar, 2014). For Hyderabad to become a competitive and truly world class city there needs to be coherent, well thought out, and strategic urban development. With the planning process so weak, and easily undermined by bureaucratic interests, there is a danger that urban development in Hyderabad may continue to be ad-hoc, reactionary and ineffective. Without an efficient and effective planning and decision-making process, the frameworks upon which the world city image is based, are entirely inadequate. Therefore, over and above considering the infrastructural and economic concerns of the world city ideal, as current theory has tended to do (Sassen, 2005), I would suggest that it is important to consider the process through which the world city image is arrived at. As this research has shown, the process has been often forgotten in favour of the outcome, with negative consequences for many involved with the project.

A further consideration is the level to which policy transfer plays a role in developments such as the Metro Rail. As theorists have indicated, and which appears to be a reasonable assertion, policy transfer is often used to justify a predetermined choices and imparted onto a specific locale (Marsden and Stead, 2011). While the research didn’t focus on this given its scope, it would not be unreasonable to suggest that this type of policy transfer reinforces the world city theory, and what that theory aims to achieve – replicating successful examples of other world class cities and their associated
infrastructure. Metro rail policy in general has been widely transferred throughout India, which is problematic in itself, and when this is considered in tandem with wider adoption of transport policy from other cities globally, the problematic nature of world city theory and policy transfer is heightened. This fits within the mould of a city like Hyderabad, where the HMR is perhaps as much an aspirational goal as it is a transport necessity.

Broadly speaking then, it is clear this research supports wider planning and urban governance theory, which argues that without effective communication and role allocation between planning authorities, the planning and governance arrangements falter. With a faltering governance system, mistakes are made which have serious implications for all involved in projects like the HMR. In this case, this has resulted in negative outcomes for communities throughout Hyderabad, and ongoing problems for the agencies tasked with implementing the project in the city.

**Research Question Two**

The research process yielded a number of findings with relation to the role of the public in the planning and decision-making process. The research found overwhelmingly that the consultation procedures undertaken in the development of the HMR have been hopeless inadequate. This finding is supported very strongly, and reinforces, the existing theoretical understanding of public involvement in transport decision-making. Theorists such as Booth and Richardson (2001), Bickerstaff et al. (2002) and de Luca (2014) have all made assertions regarding the inadequate levels of public involvement usually inherent in transport decision-making. This research asserts that Hyderabad is perhaps emblematic of a wider exclusion of meaningful public engagement in this sense. As highlighted in the literature review of this thesis, it is important to consider Booth and Richardson’s (2001) theory regarding not only the level of public involvement, but the meaningful nature of that involvement. The results of this research have shown there to be a deficiency in both aspects. Not only has the wider public been limited in the scope of their involvement but as the research has shown, this involvement has generally been limited to press meetings and the quality of information provided has been poor. The research most definitely suggests that the process was not in place to “facilitate a genuine exchange of ideas and information…more an attempt to
win public support for political decisions which have already been made” (Booth and Richardson, 2001, p.147).

The consultative process exhibits traits of a process which undervalues public involvement on a level comparable to Arnstein’s (1969) concept of ‘tokenism’. We can therefore understand that while the Hyderabad example is perhaps not unique in the deficiencies experience with consultation, it fits within a broader landscape of historic inadequacies of public involvement, and meaningful inclusion of the public in transport decision-making. I have argued that the findings indicate a planning system which aligns with a wider discourse regarding public consultation in India. That is, that the public are viewed as being unable to assist in decision-making, given that technocrats and bureaucrats are held in such high esteem, and viewed as the only ones with adequate knowledge to make decisions. The findings of this research have indicated, and confirmed existing theories (Bai et al., 2010, Bickerstaff et al., 2002), that involvement of the public can provide expertise and experience which planners and decision makers do not possess. I have argued that in the case of the HMR, wider involvement of the public would have yielded more reliable information regarding patronage for L&T, and that affected party consultation would have led to a better understanding of the implications of the project. Further, this process may have mitigated delays in time and extra resourcing which has subsequently been expended in the project.

**Research Question Three**

The final research question looked to ascertain the impacts at the community level in Hyderabad. In assessing this, a micro scale case study approach was used and the three chosen case studies indicated that the recession of the planning process, and the exclusion of the wider public from that process, has led to significant impacts at the community level. The theoretical understandings of how the planning process work, and how the public are excluded from that process, help us to understand why it is that these impacts are felt, and why certain groups are more likely to feel these effects than others.

The findings have shown that not only are there massive socioeconomic implications for lower and middle class communities, but that community values such as heritage
and religion are being devalued in favour of development. As heritage management literature has shown, the devaluation of heritage in favour of development is a common occurrence (Hampton, 2005). Their commonality, however, makes the loss of heritage a no less important issue, particularly when the issue has been ill-considered by the agencies responsible for development. I argue that in Hyderabad, the arrogance and ignorance of Metro Rail implementing authorities throughout the planning process has led to these tensions regarding heritage. This is exacerbated as a result of a process which lacked meaningful involvement of the public, and any real attempts to understand the impacts of the project on communities.

Lower class communities often suffer disproportionately in the development of large scale urban infrastructure, particularly as a result of the land acquisition process and decisions made in favour of bureaucratic interests (Badami et al., 2007). These groups have less social capital, and are often located on the most affordable land, which leads to their exploitation. While this research hasn’t investigated the reasons behind these communities being earmarked for development, is clear the effects on middle to lower income communities in Hyderabad are significant. Particular concern exists in regard to the possible displacement and loss of livelihoods for people in trading areas throughout the city, such as Sultan Bazar and Ameerpet. The loss of trading areas and affordable leasehold space is likely to cause significant socioeconomic impacts for the people in these communities, which may be compounded by the shift towards mall culture which is being implemented through TOD.

However, while the impacts are significant and cannot be ignored, evidence from throughout both the international and Indian experience, and wider theory, suggests that the HMR stands to have wide reaching positive impacts on the efficiency of the transport system, and the mobility of Hyderabadis. The current transport system in Hyderabad is overworked, and highly inefficient and metro rail as an urban transport solution has had great success throughout India, and other densely populated cities (Rodrigue et al., 2006). Evidence from Hyderabad, when compared to other Indian cities exhibits similar preconditions that suggest metro rail as a transport solution, will provide significant benefits to the city. The HMR stands to transport millions of people daily, at increased speeds and increased efficiency. It will provide an alternative
transport mode which has the potential to ease the city’s massive congestion, and significant environmental impacts associated with the existing transport network.

However, despite these positives, it is abundantly clear that the impacts on communities in Hyderabad signal a planning process which is extremely outcome oriented, without grasping the need for an effective process. This process has led to significant impacts on communities in Hyderabad and will continue to do so. I have argued that while the HMR stands to have a number of positive impacts for the city and the mobility of its residents, the city is operating within an outcome-oriented planning system, which lacks clear direction and focus on the impacts which are occurring throughout the process.

In Summary

Many of the issues covered in this thesis are already targets of central government reform under the process of the JNNURM. A number of different aspects of this process have been outlined throughout this research. Therefore, it may be hoped that this process is the catalyst for positive change in urban development and the requirements which go alongside it. However, the failures which have been indicated in this thesis, and indeed could have been predicted given the theoretical understanding of these issues, are difficult to retrospectively fix. While JNNURM provides an encouraging central level framework through which to achieve better urban service delivery and planning processes, the inadequacies highlighted throughout this thesis in Hyderabad’s planning framework require substantial improvement for the benefits of the JNNURM can be realised in the city. This requires understanding the issues of planning, policy, infrastructure development, public involvement, and the many other issues highlighted throughout in conjunction rather than in isolation. In appreciating the various theoretical considerations of these processes, as has been undertaken in this thesis, we can understand the issues being experienced in Hyderabad not only in terms of their deficiencies, and why particular failures have occurred, but understand how these processes may be better undertaken, leading to the achievement of more satisfactory outcomes not only for urban local bodies and development agencies, but the wider public who should be involved in that process.
As the research has shown, and which post-fieldwork developments have reinforced, the planning system in Hyderabad is highly deficient. It is being put to the wayside by bureaucratic interests, which results in an outcome-oriented planning framework lacking the governance arrangements to fulfil a good practice process. The considerations which have been raised in this thesis, and indeed the understandings of these within wider theory are clear; there is a requirement for the planning process in Hyderabad to evolve, keeping in mind the experiences of itself and other Indian cities in the development of urban infrastructure. Only with this in mind will the strategic and more inclusive development of the city be an outcome which may realistically be achieved.
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Appendices

Appendix A: Ethical Approval, incl. Consent and Information Forms

Appendix B: List of Interviewee Positions
Appendix A: Ethical Approval, incl. Consent Forms and Information Sheets

UNIVERSITY OF OTAGO HUMAN ETHICS COMMITTEE APPLICATION FORM:
CATEGORY A

Form updated: June 2013

Please ensure you are using the latest application form template available from: http://www.otago.ac.nz/administration/committees/otago000864.html and read the instruction documents provided (Guidelines for Ethical Practices in Teaching and Research and Filling Out Your Human Ethics Application).

1. University of Otago staff member responsible for project: Douglas Hill, Senior Lecturer
2. Department/School: Geography
3. Contact details of staff member responsible: dph@geography.otago.ac.nz
4. Title of project: Transport Infrastructure Development and Planning in Hyderabad, India
5. Indicate project type and names of other investigators and students:

<table>
<thead>
<tr>
<th>Student Researchers</th>
<th>Names:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Whitworth</td>
<td>Masters</td>
</tr>
</tbody>
</table>

6. Is this a repeated class teaching activity? No
7. Fast-Track procedure
   Do you request fast-track consideration? No
8. When will recruitment and data collection commence? February 2014
   When will data collection be completed? November 2014
9. **Funding of project:** Is the project to be funded by an external grant?

   No. This project is to be funded through personal funds, and the Geography Department. This includes funds from the Ron Lister Travel Grant (awarded through the Geography Department).

If commercial use will be made of the data, will potential participants be made aware of this before they agree to participate? If not, explain:

   Commercial use will **not** be made of the collected data.

10. **Brief description in lay terms of the purpose of the project** (approx. 75 words):

    The purpose of the research is to investigate the planning process in Hyderabad, India, and determine whether or not good planning practice has been used in the process and development of large-scale transport infrastructure. By ‘good planning practice’ focus will be given to consultation procedures, and the processes surrounding allocation of funds, tendering and construction of the Hyderabad Metropolitan Rail system.

11. **Aim and description of project:**

    How does the planning processes which occur in Hyderabad, assist in infrastructural development towards a global city? What are the implications of this development for the existing residents of the city, and how are they included/excluded in relation to this? How does the development of large scale infrastructure such as the Hyderabad Metropolitan Rail system, reflect the broader planning processes at a tangible level, and how could these types of developments be better enacted in terms of consultation, participation and transparency in the planning process?

12. **Researcher/instructor experience and qualifications in this research area**

    Doug has a number of years of experience in supervising thesis students. He has expertise specifically within research on urban and social processes in India and has a high level of understanding regarding the subject matter of the project.

    Joe has gained experience of the research process through conducting various fieldwork projects throughout his undergraduate degree at the University of Otago. He has good knowledge and understanding of the research and field work processes. In addition, he has undertaken undergraduate study with Doug regarding contemporary India, and also the wider South Asian region, in relation to the topic outlined for research.

13. **Participants**

    13(a) **Population from which participants are drawn:**

    Predominantly, research will focus on those involved directly with planning processes in Hyderabad, in relation to the development of the metro system, but also those who are affected by the development. This includes:
Planning officials from Greater Hyderabad Metropolitan Corporation, planners from the private entity involved with the metro, journalists familiar with the development of the metro, community groups affected by the metro rail, academics who are knowledgeable on the specifics of the current process, individuals who have been affected as a result of the metro.

13(b) Inclusion and exclusion criteria:

To participate in the research, participants must be willing, and over the age of 18.

13(c) Estimated number of participants:

It is hoped, and anticipated, that there will be between 15-20 participants.

13(d) Age range of participants:

No person under the age of 18, no upper age limit

13(e) Method of recruitment:

I intend to initially contact members of the Greater Hyderabad Metropolitan Corporation and interview those who may be able to assist the research. From there I intend to snowball sample participants through developing contacts with planners, and those involved with implementing the metro. I also intend to develop contacts and leads through journalists who are familiar with the metro development. In addition, I have existing contact with an academic from Osmania University, Hyderabad who will assist with the recruitment of participants. All those contacted will be provided with information regarding the aims of the project and how the information will be used, in order to make a decision regarding whether or not to participate in the study.

13(f) Specify and justify any payment or reward to be offered:

Participation in the study will be completely voluntary, and nothing will be asked of the participants above the provision of information. Therefore, it is envisaged that no payment/reward will be offered in relation to the study.

14. Methods and Procedures:

The method of research will involve a series of digitally recorded interviews with participants. The interviews will be semi-structured and include a series of open ended questions relating to the overall research questions of the research, as highlighted in the information sheet. Examples of potential interview questions have been outlined in Appendix A. Many participants will have a strong grasp of English, and if comfortable the interviews will be held in English. However, for those who aren’t comfortable speaking English, interviews will be conducted in the language of the participant through assistance of a translator. Written notes will be taken during interviews, and all
Interviews will be recorded (subject to participant’s permission) for later transcription and analysis.

The length of the interviews will vary, but are likely to be between 30-60 minutes. All participants will be made aware that they will determine their own contribution, and that there will be no consequences if they choose to withhold information or withdraw from participating completely.

15. **Compliance with The Privacy Act 1993 and the Health Information Privacy Code 1994** imposes strict requirements concerning the collection, use and disclosure of personal information. The questions below allow the Committee to assess compliance.

15(a) Are you collecting and storing personal information (e.g. name, contact details, designation, position etc) directly from the individual concerned that could identify the individual?

Yes

15(b) Are you collecting information about individuals from another source?

No

15(c) **Collecting Personal Information**

**Will you be collecting personal information?**

No personal information is being sought, other than personal opinions on planning issues. Accuracy, completeness, relevance and ambiguity will be addressed by asking nondirective questions, constantly checking for informant consistency, and via rigorous, reflexive data interpretation. Information will remain confidential to all except the researcher and the research supervisor. All participants will be informed of these data access arrangements. No individuals will be identifiable from the research.

**Will you inform participants of the purpose for which you are collecting the information and the uses you propose to make of it?**

Yes

**Will you inform participants of who will receive the information?**

Yes

**Will you inform participants of the consequences, if any, of not supplying the information?**

Yes

**Will you inform participants of their rights of access to and correction of personal information?**

Yes

Where the answer is YES, make sure the information is included in the Information Sheet for Participants.
15(d) Outline your data storage, security procedures and length of time data will be kept:

The data will be kept in storage within the Geography Department for five years, after which it will be disposed of by the department.

15(e) Who will have access to personal information, under what conditions, and subject to what safeguards? If you are obtaining information from another source, include details of how this will be accessed and include written permission if appropriate. Will participants have access to the information they have provided?

No personal information is being sought.

15(f) Do you intend to publish any personal information they have provided?

No

15(g) Do you propose to collect demographic information to describe your sample? For example: gender, age, ethnicity, education level, etc.

No

15(h) Have you, or will you, undertake Māori consultation? Choose one of the options below, and delete the option that does not apply:

No. The proposed research is being undertaken overseas.

16. Does the research or teaching project involve any form of deception?

No

17. Disclose and discuss any potential problems:

It is highly unlikely that harm, discomfort or conflicts of interest will arise during the course of the study. Due to the openness of the key informant interviews the interviewees have the liberty to avoid uncomfortable subjects. If a participant appears uneasy and expresses their concern about discussing a particular topic the research will simply move on to another discussion topic and will reassure the participant that they do not need to continue the interview if they feel at all concerned.

The semi-structured verbal interviews will be conducted by the researcher, and where a translator is required, the questions will be directly asked by the translator in the language of the participant. The translator will assist the researcher in phrasing questions appropriately prior to any interviews being conducted. The research will also be available after field work is completed via email and phone, so that participants can contact the researcher if necessary and/or if any problems arise regarding the information they provide or the researcher’s interpretation of the data.

All participants will have the opportunity to obtain information relating to the outcome of the project if they wish (by contacting the researcher). Participants
will be made aware that they are under no obligation to take part in the project and that they can withdraw their consent at any stage. I will buy a sim card at the airport, so will also be contactable, and have a local phone number. Because of my existing contacts and thorough background research into the study area I do not anticipate any problems during my time researching. After thorough consideration we can conclude that no other significant ethical issues with regard to this project are foreseen at present.

18. *Applicant's Signature:  .................................................................

   Name (please print): .................................................................

   Date:  .................................

   *The signatory should be the staff member detailed at Question 1.

19. Departmental approval:  *I have read this application and believe it to be valid research and ethically sound. I approve the research design. The Research proposed in this application is compatible with the University of Otago policies and I give my consent for the application to be forwarded to the University of Otago Human Ethics Committee with my recommendation that it be approved.

   Signature of **Head of Department:  .................................................................

   Name of HOD (please print): .................................................................

   Date:  .................................

   Attach copies of the Information Sheet for Participants, Consent Form, and Advertisement to your application

   Send the signed original plus 17 double-sided and stapled copies of the application to:

   Academic Committees, Room G22, G23 or G24, Ground Floor, Clocktower Building, University of Otago, Dunedin
Potential Research Questions

Note: These questions simply indicate the questions that are likely to be asked and is not the definitive list of questions that will be asked.

Questions that may be posed to planning officials/planning researchers.

1) What is your name?
2) Where do you work?
3) What is your role/job description there?
4) What is your involvement in Hyderabad urban planning?
5) What is your understanding on the current role of town planning in Hyderabad?
6) What do you think of the role which planning plays in the development of Hyderabad?
7) Has the planning process been improved in Hyderabad?
8) What do you see as the flaws in the development of the city?
9) Do you believe the wider public have been involved in the planning processes? Can you describe how? Is it useful for the planning authorities and the public?
10) Do you think reforms under the Jawaharlal Nehru Urban Renewal Mission have improved the planning process in India? In Hyderabad? How has it improved the process?
11) Has it made public involvement more valuable? More valued?
12) Do you think those reforms have allowed planning agencies more independence from central/state government? Is this a good or a bad thing? Why?

Questions that may be posed to members of the public/laypersons.

1) What is your name?
2) What is your occupation?
3) What is your understanding of the current role of town planning in Hyderabad?
4) Do you feel involved in any part of the planning process?
5) Has this improved over time? If so, over what period?
6) What do you see as the flaws in the development of the city?
7) In relation to the Hyderabad Metro, do you feel as though you have been involved in the decision-making? Would you have liked to be?
8) What is your opinion of the Metro?
9) What sort of impact will it have on your day-to-day life?
10) Do you feel as though you are able to lobby for your rights and opinions to be heard?
11) What actions do you/have you taken to become involved in the planning process, and have your opinions heard?
Transport Infrastructure, Development and Planning in Hyderabad
INFORMATION SHEET FOR PARTICIPANTS

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

This project is to fulfil part of the requirements for a Master of Planning qualification at the University of Otago, Dunedin, New Zealand. The aim of this project is to understand the processes behind transport infrastructure provision in Hyderabad, and whether the planning processes in the city are enabling service provision to all people, or just a select few.

What Type of Participants are being sought?
A wide array of participants are being sought for inclusion in this study. In particular, those with knowledge of the planning process, or the effects of the planning process in Hyderabad. Further, those with knowledge of the Hyderabad Metro Rail, and the processes behind its formation.

Participants will initially be contacted via email or telephone. Subsequent participants will be identified and contacted through initially participants. There is no limit on number of participants, but all those who contribute must be at least 18 years of age.

What will Participants be asked to do?

Should you agree to take part in this project, you will be asked to answer questions based on your experience and knowledge of planning, and infrastructure provision in Hyderabad. If it is required, a translator shall assist during interviews. The questions will be open ended, and interviews should not last more than an hour. The research will try to ensure you feel comfortable at all times, but if at any time you feel uncomfortable during the interview and wish to take no further part of the project, you may do so without any disadvantage to yourself of any kind.
What Data or Information will be collected and what use will be made of it?

The data to be collected shall focus on the planning process in Hyderabad, and the planning in regards to the Hyderabad Metro Rail and the city’s people. Collected data will take the form of written notes, to be taken during the interview and also as audio, recorded during the interview if permitted.

This research involves an open-questioning technique where the precise nature of the questions that will be asked have not been determined in advance, but will depend on the way in which the interview develops. Consequently, although the University of Otago Human Ethics Committee is aware of the general areas to be explored in the interview, the Committee has not been able to review the precise questions to be used. In the event that the line of questioning does develop in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular question(s) and also that you may withdraw from the project at any stage without any disadvantage to yourself of any kind.

Due to the nature of the research whereby the results may need to identify the roles and responsibilities of a participant, it may not be possible for total anonymity to be preserved in the completed research.

The information gathered will be used in the writing of the final Master’s Thesis and only the research and the researcher’s supervisor will have access to it prior to the printing of the thesis.

The results of the project may be published, and will be available in the University of Otago Library, Dunedin, New Zealand. Every attempt will be made to preserve your anonymity. You are more than welcome to request a copy of the results of the project.

The data collected will be securely stored in such a way that only the researcher, their supervisor, and the translator will have access to it. At the end of the project, any personal information will be destroyed except as required by the University’s research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

Precautions will be taken to protect and destroy data gathered by email. The security of electronically transmitted information cannot be guaranteed. Caution is advised in the electronic transmission of sensitive material.

Can Participants Change their Mind and Withdraw from the Project?

You may withdraw from participation in the project at any time and without any disadvantage to yourself of any kind.
What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Joseph Whitworth          OR          Dr Douglas Hill
Department of Geography          Department of Geography
University Telephone: +64 3 479 4218  University Telephone: +64 3 479 8775
Email Address: whijo598@student.otago.ac.nz   Email: dph@geography.otago.ac.nz

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (Ph +64 3 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.

[Reference Number 14/016]
[29/01/2014]
TRANSPORT INFRASTRUCTURE, DEVELOPMENT AND PLANNING IN HYDERABAD

CONSENT FORM FOR PARTICIPANTS

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

1. My participation in the project is entirely voluntary;

2. I am free to withdraw from the project at any time without any disadvantage;

3. Personal identifying information which is audio recorded will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years.’

4. Due to the nature of the research whereby the results may need to identify the roles and responsibilities of a participant, it may not be possible for total anonymity to be preserved in the completed research.

5. This research involves an open-questioning technique where the precise nature of the questions that will be asked have not been determined in advance, but will depend on the way in which the interview develops. Consequently, although the University of Otago Human Ethics Committee is aware of the general areas to be explored in the interview, the Committee has not been able to review the precise questions to be used. In the event that the line of questioning does develop in such a way that I feel hesitant or uncomfortable I am reminded of my right to decline to answer any particular question(s) and also that I may withdraw from the project at any stage without any disadvantage to myself of any kind.

6. The researcher will endeavour to ensure that I am not uncomfortable, but if at any time I do feel uncomfortable and wish to not take part in the project, I know that I may do so without any disadvantage to myself of any kind.
7. The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve my anonymity should I choose to remain anonymous.

8. I grant/do not grant my permission to allow the researchers to record my interview

9. I grant/do not grant permission to allow the researchers to use my identity

I agree to take part in this project.

................................................................. .................................................................
(Signature of participant) (Date)

.................................................................
(Printed Name)

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (Ph 03 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
## Appendix B: List of Interviewee Positions

<table>
<thead>
<tr>
<th>Key Informant Number</th>
<th>Position</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urban Academic &amp; Geographer</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>Urban Academic &amp; Former Chief of Hyderabad Metropolitan Development Agency</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Urban Academic and Heritage Advocate</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>Local Trader</td>
<td>Ameerpet Case Study</td>
</tr>
<tr>
<td>5</td>
<td>Local Trader</td>
<td>Ameerpet Case Study</td>
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<tr>
<td>6</td>
<td>Local Trader</td>
<td>Ameerpet Case Study</td>
</tr>
<tr>
<td>7</td>
<td>Local Trader</td>
<td>Ameerpet Case Study</td>
</tr>
<tr>
<td>8</td>
<td>Urban Academic &amp; Geographer</td>
<td>Hyderabad Centre for Economic and Social Studies</td>
</tr>
<tr>
<td>9</td>
<td>Head of Land Acquisition: Metro Rail Project</td>
<td>Greater Hyderabad Municipal Corporation</td>
</tr>
<tr>
<td>10</td>
<td>Chief Engineer</td>
<td>Hyderabad Metropolitan Development Authority</td>
</tr>
<tr>
<td>11</td>
<td>Head Planning Consultant</td>
<td>Hyderabad Metropolitan Development Authority</td>
</tr>
<tr>
<td>12</td>
<td>Transport and Traffic Planner</td>
<td>Hyderabad Metropolitan Development Authority</td>
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<tr>
<td>13</td>
<td>Managing Director</td>
<td>Hyderabad Metro Rail Limited</td>
</tr>
<tr>
<td>14</td>
<td>President</td>
<td>ISKCON Hyderabad Case Study</td>
</tr>
<tr>
<td>15</td>
<td>Public Relations Manager</td>
<td>Larsen and Toubro Metro Rail Hyderabad Limited</td>
</tr>
<tr>
<td>16</td>
<td>Freelance Journalist</td>
<td>N/A</td>
</tr>
<tr>
<td>17</td>
<td>Political Editor</td>
<td>The Times of India</td>
</tr>
<tr>
<td>18</td>
<td>Special Correspondent</td>
<td>The Times of India</td>
</tr>
<tr>
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<td>21</td>
<td>Local Trader</td>
<td>Sultan Bazar Case Study</td>
</tr>
<tr>
<td>22</td>
<td>Co-Convenor</td>
<td>INTACH Hyderabad (Heritage NGO)</td>
</tr>
</tbody>
</table>