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Summary

The city of Karachi in Pakistan presents a unique situation in which the land that falls under the physical boundary of the city is controlled by fifteen land owning agencies. The city government controls only 31 percent of the land. Most of the highly valued land of the city falls under the jurisdiction of two agencies; the Defence Housing Authority and the Co-operative Housing Societies. DHA, being an authority rather than a co-operative, being larger in the amount of land that it controls, and established as a welfare system for the military, hence, is a more interesting and unique specimen to study in terms of land development and the real estate process. The exploratory study circles around to what extent DHA uses the different stages of the real estate process (land acquisition, land regulations and land leasing) and its resultant high value of land to provide welfare to the military officers of the country.

A case study approach is adopted to study the causal relationships in this phenomenon and both qualitative and quantitative data are used, extracted from both primary and secondary data sources. DHA phase 8 is used as the sample area and military officials who have received welfare through first hand allotment in this phase have been the primary source of information among others. The data reveals the partial success of the system through their cases in receiving welfare benefits as the initial investment into obtaining the allotment is higher than the value of the land within the first ten years. This makes the welfare exclusive to the officers from rich backgrounds that have savings to not only buy the land in the first place, but also are able to incur the development charges.

The study discusses policy recommendations that can aid in improving the efficiency of this process to make it more encompassing thus providing welfare for all.

Keywords

Military Welfare, Welfare, Real Estate Welfare, DHA, Karachi, land development

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Finally, I dedicate this to the memory of my father, Hasan Jamil Alvi, whose daily words of encouragement and belief led me through this journey and gave me the strength to complete this work.

Abbreviations

AWT	Army Welfare Trust
BoR	Board of Revenue
CBD	Central Business District
CDGK	City District Government Karachi
DHA	Defence Housing Authority
FF	Fauji Foundation
GoP	Government of Pakistan
GoS	Government of Sind
IHS	Institute for Housing and Urban Development
KMP 2020	Karachi Master Plan 2020
KPT	Karachi Port Trust
LDA	Lyari Development Authority
MDA	Malir Development Authority
MEO	Military Estate Office
PDOCHS	Pakistan Defence Officers Co-operative Housing Society
PFF	Pakistan Fisherfolks Forum
PQA	Port Qasim Authority
SITE	Sindh Industrial and Trading Estate
Exchange Rate ¹ :	1974, 1975, 1976, 1979 : \$1 = PKR 9.9
	1986 : \$1 = PKR 16.7
	1990 : \$1 = PKR 21.7
	1995 : \$1 = PKR 31.6
	2002 : \$1 = PKR 59.7
	2003 : \$1 = PKR 57.7

¹ <http://fx.sauder.ubc.ca/etc/USDpages.pdf>

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Chapter 1: Introduction

1.1 Background

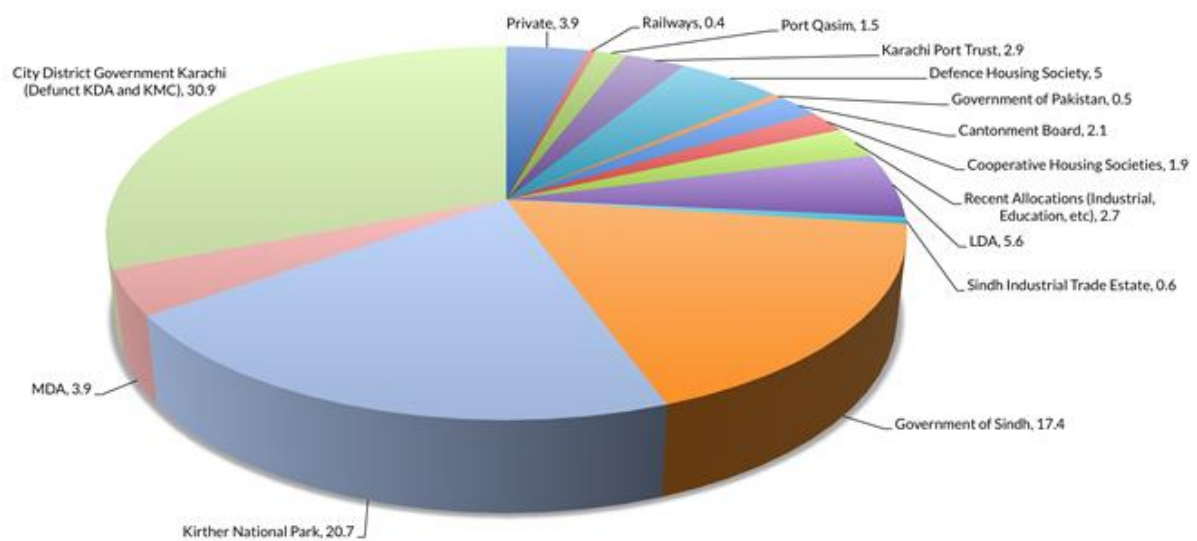
“Karachi is a megacity with a population of about 18 million” according to Hasan, Ahmed, et al (2013, p. vi). The authors also state that “the city houses 32 percent of the total industrial base of the country and generates 15 percent of national GDP, 25 percent of federal revenues and 62 percent of income tax...It contains 62 percent of Sindh’s urban population, 30 percent of its total population and 22 percent of Pakistan’s urban population.” (Hasan et al., 2013, pp 2). Therefore, Karachi clearly plays a very important role in the economy of the country.

Urbanised Karachi covers 1300 square kilometres out of the 3600 square kilometres of its total area (City District Government Karachi, Master Plan Group of Offices, 2007). This land was originally owned by the Government of Sindh and managed through the Board of Revenue of Sindh (Hasan et al., 2013). It has been transferred to fifteen different agencies during pre-partition to date (Graph1). These agencies are the City District Government Karachi, the Karachi Port Trust, Pakistan Railways, Port Qasim Authority, the Federal Government, Military Cantonment Boards, Defence Housing Authority, Co-operative Housing Societies, Sindh Katchi Abadi Authority, Education and Textile Cities, Lyari Development Authority (LDA), Sindh Industrial and Trading Estate (SITE), the Government of Sindh, Malir Development Authority (MDA), Kirthar National Park and private land owners (City District Government Karachi, Master Plan Group of Offices, 2007). The reasons why the city is unable to expand its commercial growth and provide for low income housing, amenities and utilities is because all the above mentioned agencies have the power to plan develop and maintain their land through their own standards and by-laws. They are not bound by law to follow the Karachi Strategic Development Plan 2020 which is produced by the City District Government Karachi which owns 30.9 percent of the total land in the Karachi division (Hasan et al., 2013).

This becomes a very unique case in the way a city stands to function as even though there is ample land under the physical boundary of the city it has regulatory powers over only 30.9 percent of its land. The author’s intent hence becomes to understand this unique situation. In order to do so each land owning agency that does not come under the regulatory power of the city must be studied to understand the different systems that co-exist within the city boundaries.

If we look at map 1 which shows the location of DHA (5%) and the location of the Co-operative Housing Societies (1.8%) and then if we look at map 2 produced by the Karachi Master Plan 2020 which shows the land values within Karachi, it becomes interesting to notice that these two land owners control some of the highest valued land in Karachi. The land is also well-located - the Co-operative Housing Societies form almost the centre of the city falling between the Airport and the Central Business District sandwiched between two major roads while DHA is located along the coast and the entire land area forms a peninsula. It is also close to the CBD and has major road links with it all this while acquiring more land along a major road that connects the Karachi port to the rest of the country under the name of DHA City Karachi(highlighted by yellow on map 1). Since DHA is bigger of the two land owners discussed above and an authority instead of a co-operative it becomes a more interesting specimen to study in terms of the land value captured, if any. It also appears as an interesting case to study because it controls the highest valued land and best location under the set-up of a welfare system for the military officers. Hence how land is used as welfare becomes an intriguing topic.

Graph 1: Land control map



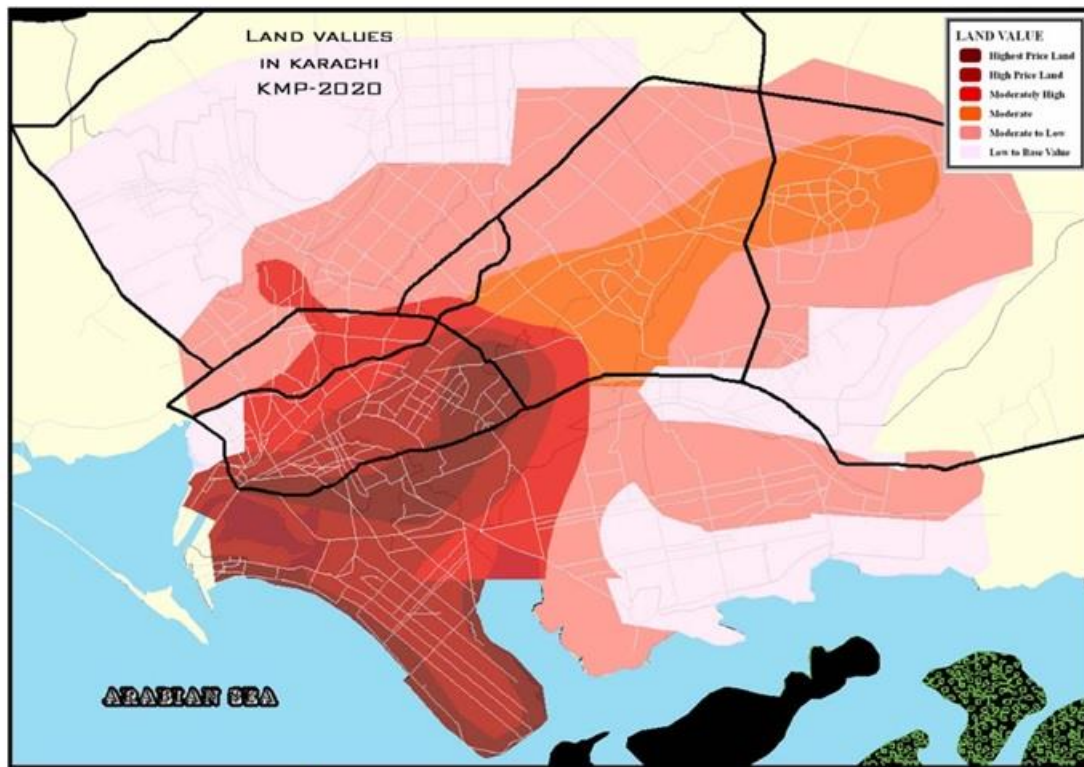
CDGK CONTROLS 31% AREA ONLY

Source: (City District Government Karachi, Master Plan Group of Offices, 2007)²

² The original pie-chart published by the city district government Karachi , master plan group of offices was of a poor image quality so it was recreated by <http://arifhasan.org/human-settlements/land-housing/the-ecology-land-and-transport-link-in-karachi-trends-and-directions>

Source: self-created by author using Google maps and information from City District Government Karachi, Master Plan Group of Offices, 2007 and Hasan et al, 2013

Map 2: Land Values in Karachi



Source: (City District Government Karachi, 2006)

1.2 Problem Statement

Defence Housing Authority, Karachi

The Defence Housing Authority started as PDOCHS (Pakistan Defence Officers Cooperative Housing Society Limited), a cooperative housing society registered under section 10 of the Co-operative Societies act of 1925. It was for retired army officers and was allotted 30.83 ha (308,368sq.m). In 1980 it was re-established as the Defence Officers Housing Authority under the order of the president (Government of Pakistan, 1980). Today it holds 3560 ha (35,599,964sq.m) that is 5 percent of the city's land (graph 1) (City District Government Karachi, Master Plan Group of Offices, 2007). The entire DHA development is divided into sectors known as 'Phases'. There are eight Phases. Phases 1 to 7 are complete while phase 8 which also includes reclaimed land has just recently allowed development to start. Phase 9 and 10 are located on a completely different location to the north of the city under the name of DHA City Karachi, their land is not included in the DHA areas above. This study will be focusing on DHA, Karachi and not DHA City Karachi. DHA, Karachi falls under the real estate category of military welfare.

Military Welfare

The military is a highly disciplined institution. The functions of the military as defined under article 245 of the Constitution of Pakistan states the following "Functions of Armed Forces.- 1[(1)] The Armed Forces shall, under the directions of the Federal Government, defend Pakistan against external aggression or threat of war, and, subject to law, act in aid of civil power when called upon to do so." In an act so important it is imperative for the men of the military to be loyal.

To ensure this loyalty the Pakistani military built itself as an institution to support its men while in service and after retirement. It established two simultaneous models of welfare systems- one, in which profit is earned through commercial ventures and used to build infrastructure for health, education and vocational training for ex-service men and their families. There were no real estate projects in this model (Siddiqua, 2007). This model resulted in the establishment of the Fauji Foundation in 1953-54. In the second model, profit is generated to buy “additional welfare” for in-service personnel of the armed forces and for post-retirement employment. This model established the Army Welfare Trust (1971³), Bahria Foundation and Shaheen Foundation under it. Although portrayed as just two models of welfare for the army personnel it is important to note that these two models came into existence 18 years apart. A profit/loss analysis in Siddiqua (2007) shows that the real estate projects were the most profit generating ones in AWT while most of the other projects related to cement and pharmaceutical industry went into big losses. This perhaps helped the military evolve towards a third welfare model that only had real estate projects- the profit would be earned through real estate ventures only. Defence Housing Authority falls under this third welfare model. Although not openly defined as a third welfare model by Siddiqua(2007) it can be deduced that it is clearly different from its predecessors as DHA was established as an authority from a co-operative society in 1980. One can even go as far as saying that perhaps it was a shift towards learning from their mistakes as well as hitting a gold mine which was then used for the officers within the military.

Ambaye(2009, p. 2) and Ling and Archer(2005, p. 3) claim that “Land remains the single most important source of material, wealth and social prestige in many societies of the world. Land holds the lions share in the income generation of nations in that studies show real estate has been estimated to represent approximately one half of the world’s total economic wealth.” This makes the mind wonder if it is really something innovative and feasible that the military has devised by combining the most income generating activity with welfare? Are the military using land value capture and using the captured value to provide welfare?

In her book *Military Inc*, Siddiqua (2007) discusses that the DHA acquires land at extremely subsidised prices and then the army personnel, its owners, sell it off for very high prices. One can easily identify that there are steps missing in this process. What is the framework of this process? Does DHA make any efforts that help the land value go up? Does DHA capture any of this high value of land? Is the framework sustainable so one can use it for non-military welfare too? These are just a few of the questions that come to mind.

Looking at the concept of the Defence Housing Authority as discussed above it becomes the objective of this thesis to investigate their framework.

1.1.4 Research Objectives

The objective of this research is to examine if the Defence Housing Authority is achieving their goal by using the nature of land to provide ‘welfare’ to its beneficiaries. What is this research essentially discussing? It is understood that land value increases when land is developed. However at every stage of land development a developer has to meet some obligations to be able to acquire the rights. The objective of the research is to explain how the land value is influenced by DHA through the real estate development process which comprises of land acquisition, land regulations and land leasing. And then how is this land value used as a welfare benefit for its beneficiaries?

³ This year has been retrieved from the Army Welfare Trust website: <http://awt.com.pk/history.php>

1.1.5 Provisional Research Question(s)

Main Question:

- To what extent does the Defence Housing Authority, Karachi use the real estate process to provide welfare to its beneficiaries?

Sub Questions:

1. How is the cost of land influenced through the process of land acquisition? Is the land acquired at a low cost?
2. To what extent is the land value influenced through the process of land regulations?
3. To what extent is the land value captured through the process of land leasing?
4. To what extent does this land value benefit the military members?
5. Can this be understood as welfare?

1.1.6 Significance of the Study

Macro significance: This work is important because it is an investigative piece that forms part of a bigger study that aims to understand how the metropolitan area of Karachi grows in terms of land development under fifteen land owning agencies that operate with substantial independence. Unless this growth is explored in detail, Karachi's various problems cannot be tackled. This study looks into one of the land agencies, the Defence Housing Authority, which owns some of the best located and highest valued land in the city and aims to understand how the agency makes use of the nature of land that is its instruments and strategies, to function. At this stage however it is imperative to highlight that this study is not looking at the effects of DHA on the city but it is an attempt to understand DHA's internal logic and framework.

Micro significance: The study will reveal how land instruments and strategies are used by the Defence Housing Authority which apparently is a commercial real estate welfare venture providing housing to military and non-military people. The study will look into how it provides welfare benefits to its military beneficiaries through land using the real estate processes. The study is looking from the aspect of land value increase and how this increase is influenced.

1.1.7 Scope and Limitations

The scope of the study remains embedded in understanding the nature of land and how land instruments and strategies are used to provide welfare for the officer cadre of the military. The study will hence not be including the welfare for soldiers but only the military officers. The soldiers are provided welfare through the first welfare model (Fauji Foundation) where as DHA falls under a third welfare model which is specific to the military officers. The scope of the study will include how DHA provides welfare through the real estate business and how does it sustain it. Under the real estate process two sub processes that affect the land value will be looked at which answer the sub-research questions 1 & 2 above. In the land leasing section the ability and framework to capture the increased land value will be focused upon and this will lead to the fourth question of the welfare benefits that are offered and through what process. The final question will tie the literature looking into the roots of welfare and its definition with the results of the study to see if land can indeed be used as welfare.

It must be highlighted that the soldiers' welfare is not in the scope of this study. The study will not question welfare on the ground of 'fairness' as it is only provided to a certain officer cadre with in the military. It will also not question why military welfare should exist but instead explores whether it falls under the traditional meaning of the term welfare, what ideas it roots out of and how it functions and sustains itself.

A major limitation of the study is that it is a difficult area of inquiry as much of the military framework is kept confidential under the guise of security issues. It will hence be difficult to access information.

However, it was predicted that because this is a non-operational military land area which is also open to the public land market information will be made accessible by the military officials. Another reason was that the nature of the study is such that it is trying to understand a system without any biases and this nature can be explained and understood in good faith and accommodated by the military officials. A third reason for accessibility of information was that because it is connected with other organisations that do not fall under the military hierarchy for example lawyers and estate agents. This information could be gathered without a military permission protocol which DHA officials have to follow.

Another limitation is the lack of scholarly literature available on land being used as welfare in contemporary welfare concepts around the world for, military or non- military purposes. To counter this problem welfare has been defined broadly with the aid of concepts like feudalism and fringe benefits. This turns this research into an exploratory study.

Despite the limitations, an attempt to carry out a scientific study to explore the phenomenon has to be carried out because DHA currently exists as a system within itself, attached to the city of Karachi. It must be studied to understand if it acts as a 'tumour' or an external 'organ' for the city, before concluding this, an acquisition and subsequent analysis of available information must be done to first identify it as an existing mass that continues to grow. I am pursuing this because the progress of society depends on this very relentless pursuit of information by researchers. Subsequent data analysis, regardless of the amount of content is a key precursor of exploratory research.

It is hence the purpose of this study above all others to attempt to piece together information regarding the framework of DHA as a 'welfare' system that uses real estate.

Chapter 2: Literature review

2.1 Overview

The literature review discusses the two key ideas in the main research question- military welfare and real estate in terms of land.

In the first section the root of land as military welfare is discussed. It discusses the contemporary idea of welfare in terms of the welfare state model due to the lack of the term being discussed on its own by scholars at large. To root this particular kind of military welfare under discussion, feudalism, as also described by Siddiq (2007), private freehold land and fringe benefits are further discussed. These concepts together will help to draw conceptual similarities if any with the real estate welfare system in the form of DHA.

The second part deals with the real estate process. It is divided into three sections as Kohlhepp (2012) explains the real estate development process. Eminent domain, Public purpose and land banking are discussed to explore their parent idea of land acquisition. This forms section one. The second section discusses the land exactions and planning under the heading of land regulations. The third section discusses land leasing as a way of capturing land value.

2.2 Roots of land as Military Welfare

2.2.1 Welfare

“Welfare” is a term which is equated to “health, happiness and fortunes of a person or a group”⁴. It is not defined as an entity on its own but always in reference to some institute or concept. The welfare state concept defines four broad categories that are covered as welfare according to Marcuzzo (2005) and Barr (2004); cash benefits, healthcare, education and food, housing and other welfare services.

In terms of the welfare state, welfare is defined such that welfare doesn’t need to necessarily be derived from state activity only. It hence has a diversity of sources as well as delivery mechanisms. The underlying concept one can conclude is that welfare is provided by the state yet not necessarily by state activity (Barr, 2004). This is very crucial as it creates an abstract definition of the concept that can accommodate a lot of ideas within it. Marcuzzo(2005, p. 3) elaborates on this point further that “Some are funded but not produced by the State, some publicly produced and delivered free of charge, some bought by the private sector, and some acquired by individuals with the money handed on to them by the State.” It becomes interesting to see which category the DHA real estate welfare falls under.

A question that one wonders about is why is there so little information regarding land being used as welfare. It is here that one needs to define the difference between the contemporary welfare concepts that are used throughout the world and this special model of military welfare that treads into real estate. This welfare is not to provide basic rights to the army officers but rights that are equal to their role and level in the society had they not been in the military and been in the private sector. It is to compete with the jobs in the private sector- to attract people to apply to the army through a certain economic status that they will be able to achieve. Land is not the only welfare service or commodity that is being provided. It is an extra additional welfare on top of the conventional health, education, employment and housing etc.(Siddiq, 2007). It evolves from the age old idea that it still “remains the single most important, source of material wealth and social prestige in many societies of the world

⁴ As defined by oxford online dictionary : <http://www.oxforddictionaries.com/definition/english/welfare>

today.” Ambaye(2009, p. 2) and Ling and Archer(2005, p. 3). At this point it becomes important to highlight that the welfare state concept is not defining ‘land’ as an object that can be considered as a benefit but at the same time it is neither excluding it as a possibility. Is it perhaps tacitly understood that providing housing automatically means providing land. But one must understand that by providing land through housing the potential value of land that is generally taken advantage of gets limited. There are two stages in the land development process when the value of land can be limited – one, is when a land-use is assigned to the parcel of land and two, when a building is built on the land according to the land-use. These stages reduce the rate of increase in the value of land because one of the reasons why land value always rises other than land being a scarce commodity is that undeveloped land can have a lot of speculative potential of highest and best use. The concept of highest and best use will be discussed later.

It hence becomes important to inquire where this contemporary mutation of welfare stems from in history.

2.2.2 Feudalism

To understand a system one must understand the people that run the system. In the case of the military real estate business one must understand the idea of land as welfare in the military and where this idea is inherited from within history. As Siddiqi (2007) presents the idea that the military behaviour and attitude resembles that of a feudal one in the way it carries out its various welfare, it becomes important to define what feudalism is. Gordon(1998,p.248) roots it somewhere in “...when land replaced movable property as the main form of remuneration...” Feudalism as defined by Bloch (2004, p.167) through the terms “*fief*”, “*benefit*” and “*Lehn*”, as essentially an economic concept that was built around the idea of property granted against the obligation of a service. It was usually awarded to people with a skill for example a goldsmith, a painter, a warrior etc. (Powelson, 1988) elaborates on the idea by (Finberg, 1972) from *The Agrarian History of England and Wales* and explains the feudal system as a system in which a king is supported by noblemen who fought for him in battles and eventually upon service merits were granted land by the king perhaps as a token for their loyalty. They would in turn have lesser nobles and ordinary citizens serving them and a chain of rents and services would form. The idea that land is granted and it was big enough for the noblemen to have lesser nobles and ordinary citizens under them on that land gives one an idea that the land was luxury or additional ‘welfare’- a way of defining a higher status through land. The author goes on to explain that there were three main types of land holdings; folkland, loanland and bookland, and all three represented a different combination of bundle of rights and obligations upon which the king held authority over all the nobles and people he allotted land to. Everyone had to pay rent to the king. This was mostly due to the idea of owning land as a bundle of rights and obligations. Rights were given in the form of ownership but obligations were imposed along with them. It signifies the stage at which land was used as remuneration but it was still controlled through obligations by the king.

This was not only in Europe but also elsewhere. As Powelson (1988) explains the evolution of land tenure systems it becomes clear that before the Arab conquest in the Indian subcontinent there was no real evidence of awarding land to gain loyalty. The landlords under the Gupta Empire fought over who would get a payment from the village peasants. It was never to take over their land. When the Arabs came, a new trend started. The Arab conquerors awarded their officers land. Revenues from this land would be collected and kept by the officer but he had inalienable rights and this land could be confiscated if the officer left the service of the king or for any other reason. This trend was slowly consolidated more by the advent of the Mughals where the Mughal king granted land to his principal

functionaries rather than pay them cash. As it got consolidated however the rights over the land became more alienable and so cash became a form of benefit.

The main difference that is pointed out between the British, north western Europeans and Japanese on one side and the Indians on the other is that the Indian feudalism never allowed negotiations between the peasants and the landlords to evolve. Even when the British conquered and tried to incorporate their brand of feudalism they couldn't succeed in creating landlords who were interested in agrarian reforms. Neither could they develop a sense of need for the peasants to evolve their skill of negotiation (Powelson, 1988). It is not discussed why this skill never evolved but one can see why similarities are drawn between the military practice of land in Pakistan that with feudalism by Siddiq (2007) because perhaps at some level no one is standing up to negotiate with the military and to question how and why they can take over so much land. This can however only be explored once the findings are revealed.

Feudalism puts a partial historic backdrop to land being allotted to military personnel and hence roots the use of real estate business to reward military through benefits in the form of welfare however it is also important to look at another phenomenon that of private land with almost complete bundle of rights intact. The first concept, with evidence, of 'private' land comes from 2700 BC onwards according to (Powelson, 1988) this 'private' land was separate from the much stronger concept of public land at that time. Public land was land owned by a goddess who allotted it to priests and the priest allotted it further. Powelson (1988) presents Diaknoff's (1974) hypothesis regarding this private ownership as perhaps a result of upper-middle class who had military power and could provide protection. Before this evidence there was only evidence of people thinking of themselves as belonging to a goddess and not to a city or a kinship. The goddess was the owner of all land and hence her followers formed one unit within which there were of course hierarchies explains (Powelson, 1988). Another hypothesis regarding the same issue presented by the author is that perhaps this private land was owned by wealthy families who had direct connections with the temple and later the secular rulers. (This point is relevant because it reflects on the fact that if the military are wealthy they can influence the government more than before in their favour and this could be one of the reasons for this intensive welfare)

2.2.3 Fringe Benefits

Fringe Benefits are a collection of benefits like, health insurance, group term life coverage, education reimbursement, child care and assistance reimbursement, employee discounts, company owned vehicles, pension schemes etc., provided by employers which are exempt from taxation as long as certain conditions are met⁵. They make sure that the monetary wage that goes to the employee is free of certain necessary expenditure as they are provided for under the benefits. Fringe Benefits can then be looked at as a form of welfare in the private sector. It is imperative to notice at this stage that the definition above mentions benefits with a fixed value. These benefits, however, are at labour and manager level.

The highest kind of fringe benefit that is awarded is the one to CEO's of companies in the form of stocks. They are also often referred to as CEO compensations (Jensen and Murphy, 1990). According to Jensen & Murphy (1990) the benefits offered to CEO's to give them incentive is by making them substantial owners of company stock. Through this strategy the best interest of stocks and the other stockholders is ensured. This is based on the idea that at a

⁵ The fair market value of these benefits however has to be included in the taxable income by the employer which can be subject to tax withholding and social security benefits payment. (Investopedia: <http://www.investopedia.com/terms/f/fringe-benefits.asp>)

higher level of service the stakes are higher and the benefits hence have to match the same level. Decision makers get to have stakes in the company so their decisions cannot be swayed against the company, if ever.

Keeping the above in mind and the idea that the military are perhaps competing with the jobs in the private market we must try to understand what stocks are. Like land they are the only other benefit that doesn't have a fixed price- perhaps an intelligent option to be kept as a benefit. While stocks can still depreciate in their value, land has an additional edge over stocks that it hardly ever depreciates in value. This is especially true for urban land.

Hence putting the above together it seems that military welfare is an institution that has evolved as a result of the need of the military to attract people and keep them loyal. To do so the job in the military has been made attractive by providing benefits under the umbrella name of welfare. It becomes a way of competing with the private sector. The welfare benefits are mostly similar to other welfare institutes and address basic needs to improve a quality of life like education, housing, employment, health, and pension. But then there is more- had the officers been in the private sector they would be able to have stocks and shares as fringe benefits of their respective job. These stocks are replaced as land by the military it appears.

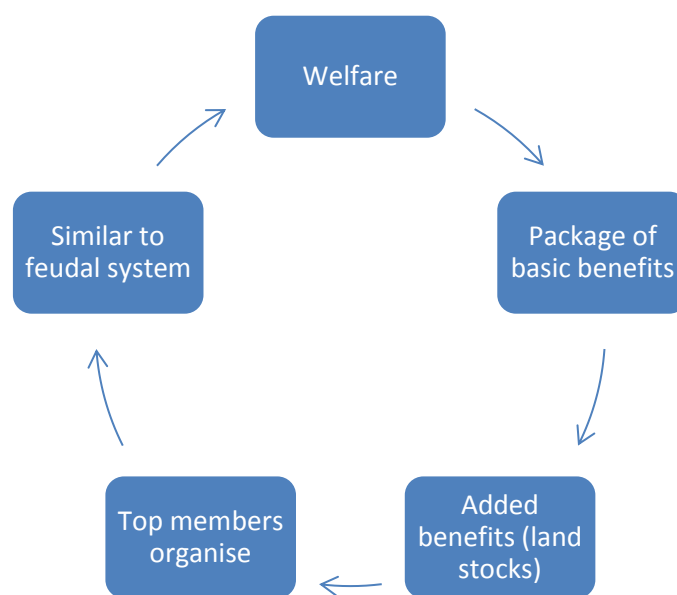


Figure 1: ‘Brain storming’ feudalism

2.3 Real Estate Process

If land is used for welfare then we need to understand how real estate works because land is strategic for real estate. Kohlhepp (2012) explains the real estate development process as: land banking, land packaging, land development, building development, building operation, building renovation and site redevelopment. The land banking stage is when and how the land is acquired. Land packaging is when a master plan or a plan is prepared on paper which assigns land uses and sizes to the scheme. The land development stage is when the horizontal infrastructure is laid out like water, electricity, roads and gas. Building development looks at the vertical development that is a vertical structure is constructed with all the improvements. The Operating stage is when the property is leased, managed and it develops a history which is recorded. The renovation stage is when the value of the property is improved through the

inputs of the owner of the property (Kohlhepp, 2012). There is a shift that is observed at the building development stage where the focus shifts from the value of land to the value of the property. The last stage as Kohlhepp (2012) explains is the redevelopment stage in which the property is torn down and a new cycle starts, usually from the building development stage. The literature puts the entire real estate discussion into perspective and helps the researcher in limiting the research to the stages that involve influencing the land value or help in capturing it and group them under the three basic terms used in the research questions; land acquisition, land regulations and land leasing.

At each stage the price of land increases but this is at a cost. Every right and benefit attained at each stage is claimed at a cost and incurs an obligation. The rights and obligations determine the use of land as well as its potential hence they determine its value. This is derived from O'Sullivan (2012, p. 127) "...the price of land is land rent...The rent on a particular plot of land is determined by how much money can be earned by using the land."

The profit that the landowner gets to enjoy as a benefit is the difference between the highest and best use (that is determined by the rights and obligations) and the costs that go into the land. Based on this basic principle any developer in the real estate market would look to minimise the costs and maximising the 'highest and best use' principle to be able to attain profit that they can keep.

The sections below are hence looking at each stage of the real estate process mentioned above and discuss their components and frameworks with reference to impact on costs and benefits with a discourse carried out on how the cost of land can be minimised and the value increased which will be the basis of welfare.

2.3.1 Land Acquisition

Acquisition of land is the first step in a real estate process. The amount of land that can be acquired often depends on how a developer acquires land. Acquisition can take place through two ways; through a normal, willing transaction between two parties or, an unwilling transaction can be enforced on the land owner (Kelly, 2011). The unwilling transaction can only be carried out legally under some defined framework. The power to carry it out is known as the power of eminent domain and most often than not governments enjoy this power only. They carry it out for roads, schools, hospitals and other public projects or it can be carried out on behalf of private companies that require the land to carry out private projects that might bring some kind of public benefit (Kelly, 2011)

2.3.1.1 Eminent Domain

"Compulsory purchase, expropriation, eminent domain, or simply "taking", are different names for one and the same legal institution: That which allows states to acquire property against the will of its owner in order to fulfil some purpose of general interest." (Azuela and Herrera, 2009, p. 1). "Eminent domain allows a government (a "condemnor") to condemn land, even if one or more of the existing owners is unwilling to sell, in exchange for providing owners (the "condemnees") with just compensation..." (Kelly, 2011, p. 2).

Ambaye (2009) speaks of two similar theories in which he roots the concept of eminent domain -"reserved rights' and 'inherent powers' " (Ambaye, 2009, p. 6). The reserved rights, as a theory presents the idea that the individuals only have possessory power over land while the state has the absolute ownership. If this is the understanding between an individual and the government there is a potential that compensation can be denied and judicial procedures eliminated because the nature of the understanding is such that the individual is aware that it is the state's property and can be taken away (Ambaye, 2009). One can gather that it is a form

of tacit acceptance in this agreement that proves to be in favour of the state thus allowing it to abuse its power. It is a state of mind behind the theory that sets a tone and allows how far it can be used to violate individual rights and deem them not violations. It is not clear however that when such a situation occurs there is no compensation altogether or if the author means that there is compensation for property but not land and the rights and livelihood related to it.

If one looks at the way land tenure has evolved it is clearly evident from both Ambaye (2009) and Powelson(1988) that this understanding has had a counter theory since the Roman times. The Romans were aware of the complexity of land transactions and a lot of laws were established to protect and establish rights just to prevent chaos that could come from them. These laws were also a result of a growing pattern of negotiations between the rulers and their subjects. This brings us to the second theory – “inherent powers” represents a slightly different mind-set, one that accepts that the state has the power to take land for public use but under the idea of ‘police power’ instead of a pre-existing tacit property right. This declares it as a power to be used for the welfare of the public (Ambaye, 2009). As a result it seems compensation for expropriation can be claimed under the public purpose concept. It hence reflects a change in the mind-set of the society as a shift towards accepting certain land rights as basic human rights is seen. The inherent power has widely become the definition that is used for eminent domain today.

So far the literature has established two situations in the case of eminent domain. If we try to apply these situations to the real estate scenario it will be that the government uses the power of eminent domain to acquire land for a developer. Situation 1- If reserved rights were used then the government would not have to incur any cost as not only would there be no grounds for an appeal for compensation but there would be no grounds on which one could even claim it to be their land. This would mean a very low cost for the developer as compared to if there were a legal mechanism for compensation (The cost of land would also depend on the existing land use as that determines the ‘highest and best’ use of the land). The impact of the acquisition of land at a low cost is however much bigger than a developer earning extra profit- It raises the question that at what expense is the profit being earned in a much bigger picture. Because eminent domain can only be used under the pretext of ‘public purpose’, such a situation raises the question about the definition of public purpose and what are the parameters of its definition in the legal framework.

In situation 2, where eminent domain is an inherent power, there can be three practical outcomes. Azuela (2007) presents three categories. These three categories are based on data collected from countries regarding their use of eminent domain. However, as a result they also can be used to define three types of systems- that of a strong state with a weak rule of law; a weakened state with a strong judiciary and a very strong property rights movement; and a state where property rights and eminent domain are practiced to complement each other for an equitable practice. This takes us back to the first section of this chapter where the mind set behind a system is discussed. All three of the above not only reflect what the society thinks at large or how it functions but also determine the practice of the idea of ‘inherent power’. In China the state is strong and there is a very strong attitude and understanding of progress based on which sacrificing the rights of some people in the name of greater development is considered not a violation (Azuela, 2007). Brazil on the other hand has a very strong judiciary as well as a property rights movement. This combined with a weak state leaves many poor who can be supported by the government and not exploited by rich land-owners and developers, defenceless. The rights of individuals are protected but perhaps not of the minorities (Azuela, 2007)

In the definition and the discussion above 'eminent domain has been identified by two variables ; purpose of general interest (public purpose) and compensation. Public purpose has various names; general interest, public use, general public interest and common good. However, their legal definitions maintain their synonymy. Every country has a different way of legally defining public purpose. Public purpose essentially acts as a justifying rationale for the act of taking away the rights of an owner to own a particular parcel of land. The concept of public purpose or public good, that is the rights of the public, trump the rights of an individual. The issue, then perhaps, becomes about private land and how recognised private property is or how recognised individual rights are. Taking its definition into consideration, expropriation is placed within the framework of property rights. It has, however, remained controversial for this exact reason, because to apply and balance the property laws for everyone and create equity is a big task. These ideas have been discussed as Land tenure systems, operation of legal systems by Azuela and Herrera (2009) and Reynolds (2010). The combination is determined by two factors; the people who design the system- how they think, and the people who are collectively running the system- how they think. This essentially determines the practice.

If we go back to the people who design the system again-public purpose in Japan is defined very specifically. The law of expropriation sets forth a list of projects that are considered under public purpose. This limits the interpretation of the statute and can lead to a more equitable situation, if all sides are well informed and equally strong. In Indonesia on the other hand, the definition is very broad and hence a lot of abuse of discretionary power takes place (Azuela and Herrera, 2009). It is imperative that it is understood at this point that the above discussion has taken place not just under the heading of cost of land but in terms of obligations that one is responsible to adhere to when the rights are bought. If obligations are removed, whether monetary or otherwise there is an impact on equity.

The next very important component of eminent domain derived from the inherent power theory is compensation. So, how does one value the property for compensation? There are two theories of valuation; the Indemnity principle and the Taker's Gain (Ambaye, 2009)

The indemnity principle also known as the owners' loss follows the basic concept that the owner should be able to retain the monetary position had the property not been acquired through eminent domain (Ambaye, 2009). This concept is driven by the idea of what the owner is losing rather than what the taker/expropriator is gaining. It becomes an extremely important driving concept as it protects the land owner by setting a bare minimum value of compensation that is equal to the market value plus some additions that are representative of the loss being incurred. It is a blessing in case the land is being expropriated for public infrastructural projects but perhaps not so much if it is for a real estate project. Different countries have different measures of the monetary cost. It in turn reflects the way the society understands property rights and individual rights. In France the compensation means market value of the land and property plus disturbance claims, loss of rent, trading loss, moving expenses, dismissal benefits and severance damages (Ambaye, 2009). Sweden also compensates based on the loss faced by the owner rather than the gains of the taker. And includes removal costs and business losses according to Ambaye(2009). This concept reflects a society with a strong sense of property rights but one cannot help wonder that what stops the individual land owners from taking advantage of the government as the expenses under compensation can be very expensive. In certain cases the government can be weakened through this concept while in others the whole idea of expropriation can be discouraged and alternatives like land re-adjustment promoted.

A counter theory to protect governments from being weakened by a strong indemnity principle is called the Taker's Gain. The concept behind this theory is to pay for only what you get. Since the taker is only getting land it should only pay for the land, that is, its market value. The idea is also to sometimes protect the governments from having to pay all kinds of damages related to the Taking that it doesn't even benefit from for example the business or the property or the loss of goodwill that came as a result of the ties in the area etc (Ambaye, 2009)

In both cases above, the value of the land is based on the 'fair' or 'just' market value. Kelly (2011) also advises the use of 'fair' market value. So, the question becomes how does one assess the fair market value? Fair market value is defined in various literatures. It is defined as "the amount of money which a purchaser willing but not obligated to buy the property would pay to an owner willing but not obligated to sell it, taking into consideration all uses to which the land was adapted and might in reason be applied." (Bigham, 1970, p. 63). The definition is according to the laws of the United States of America. Ambaye (2009) uses the definition which discusses that market value as the rate at which the property would sell after being in a competitive market while the buyer and seller are both under no stress so they can think and act, knowledgeably and in their self-interest. These definitions for a fair market value make it a little hard to be determined in reality as they essentially require a stressful, compulsory situation to be made a stress-free, willing situation. The land market is actually a very sensitive market that is mostly in flux. A single piece of information can cause changes in the market and that knowledge cannot be unknown and its effects cannot be undone- it only keeps changing with every piece of information added in the system. To keep the knowledge from being leaked sometimes becomes a difficult task. To avoid these hindrances in determining the market value often the value referred to is before the announcement of the expropriation. At this point again what concepts the society believes in at large is very important because it will determine how honestly it functions and abides by the theory of property rights.

Apart from public infrastructural projects and private public interest projects the government uses eminent domain for another purpose. Eminent domain is used by the government to create land banks to counter urban sprawl by buying land well before the anticipated development and selling it when it is required (Evans, 2004). In this way they have more control over the growth of the city. When private firms or public firms have the power to expropriate they are essentially able to buy more units of land at a (fair) market price at once. This saves them from the situation in which to expand without the power of expropriation they have to buy additional land at prices higher than the market value because of the demand that they create themselves. Without the power to expropriate buying land at a 'Fair' market value will take an indefinite amount of time. Both these factors, Evans(2004), explains, lead to the optimal size of the development and the profit to be smaller. It is therefore presented as per the author's theory that the power of expropriation in the hand of the developer can increase the profitability and the size of the development.

2.3.2 Land Regulations

The DHA plays a double role – one, a land owner with in the context of a city and two, a land regulator as it manages and organises parcels of land within its physical jurisdiction. Therefore it needs to be handling two sets of rights and obligations- one, between the city and itself, which can be referred to as the extrinsic interactions and the other, between it and the individual parcels of land within its territory which can be referred to as the intrinsic interaction.

Ideally land value capture needs to take place at two levels. As already mentioned above there are two sets of rights and obligations that need to be at play – the city capturing the increment in value that is experienced by DHA as a collective of parcels of land and DHA capturing an increment in the land value of the individual parcels within its jurisdiction.

What are land use regulations? So far it has been established that ‘ownership’ of land is through a bundle of rights and obligations. One instrument that practices this concept to organise and control the use of land is the land-use regulation. This tool is used in the land packaging stage of real estate development (Kohlhepp, 2012). According to Jaegar(2007) Land-use regulations have three kinds of effects on land prices; restriction effects, amenity effects and scarcity effects. As their names suggest restriction effects are explained as restriction on land uses that prevent its ‘highest and best use’. This can be interpreted in terms of obligations that are imposed through land-use planning and through exactions. This most often reduces the price of the land. Amenity effects are obligations regarding amenities in a planning stage which usually increase the quality (2007)of the environment of the parcels around the amenity. These can be introduced at the planning stage or in the form of exactions. This causes an increase in land prices. Scarcity effects are regulations that limit the supply of land for a particular use since the supply is limited if the demand for that use increases the value of that land will increase. Looking from another perspective according to Ochoa and Schechinger(2007) some arguments against land regulations state that this increase in price is often transferred to the consumers. However the authors show evidence that the regulations allow the increase in price to be absorbed by the land owner.

There are several different kinds of land use regulations. These are intertwined and the particular ones under discussion here are:

- Land-use planning
- Exactions

2.3.2.1 Land-use Planning

The distribution of rights and obligations is a necessary step to prevent ‘the tragedy of the commons’ (Hardin, 1968). Any parcel of land, no matter how large cannot be independent of its context and has to have some obligations along with rights in relation to it. A land-use plan is a legal document that distributes the rights and obligations to parcels of land within a territory that is defined under its jurisdiction. “ Land-use planning is basically concerned- in an integrated and qualitative way- with the location, intensity, form, amount, and harmonisation of land development required for the various space-using functions: housing industry, recreation, transport, education, nature, agriculture, cultural activities. In this way a land-use plan embodies a proposal as to how land should be used- in accordance with a considered policy- as expansion and restructuring proceed in the future” (Albrechts, 2004, p. 744). Hence, land- use planning, essentially, limits the way a parcel of land can be used and ties it with other parcels of land within its jurisdiction to promote a greater common good and efficiency of use. It can be in the form of a statutory master plan or a statutory strategic development plan. The two are slightly different while the master plan clearly states the specific land–use. These are further supported by building and development bye-laws.

As an extrinsic interaction, the developer has to comply with the land-use zoning of the city and ask for permission for the proposed land-use in its development. The municipality should have a statutory master plan that identifies the land-uses, development and growth of the city or a statutory strategic development plan guiding what should or shouldn’t be allowed. For each stage of the development there are charges that have been approved and are usually stated in the planning and building bye-laws. For anything extra, exactions are charged. These will be covered in the next section. The problem arises with master plans sometimes;

Albrecht (2004) explains they cannot respond to changing trends sometimes and hence become too rigid and inflexible. This is explained well in the case of the Netherlands by Needham (2007) that often it can become a problem if the planning statute says that plots A, B and C can only be developed in their order whereas changing trends demand the development of plot C while A and B are still not developed or that if a certain land-use that is not prescribed in the planning statute is required. This, however, is more related to achieving a land-use not just assigning it. There is a difference between the two and this will be discussed later.

If we look at the basics, in the case of undeveloped land purchased by a developer, the land use zoning stage assigns a new land use through a planning process this could be both by the municipality or the governing body on one hand and if it's a large enough development project they will produce their own plan which will be approved by the governing body issuing the land. The assigning of land-use has three effects. One, It is an understood fact that the highest yielding crop that might dictate the land rent of an agricultural land will still be very little compared to the land rent dictated by an urban use. Hence any land use planning process at its most basic stage of assigning urban land uses to an undeveloped or agricultural land like; residential, commercial, industrial and amenities will assign a right to a higher land rent for that parcel of land. That is the land value will increase as a result of zoning.

Second, the inclusion of amenities increases the quality of the land that surrounds it, raising its value, as a result. The real impact of amenities can be seen through studies of urban quality. The urban quality is termed as the positional factor by D'acci (2014) whose research recorded a 0.64% average increase in value for every 1% of the urban quality of the site. This was more than the 0.15% average increase in value for every 1% increase in distance from the city centre shown by the same research. The highest difference in values was recorded between areas that were closest to each other but differed in the quality of urban space.

The third factor is that the plan not only assigns the type of land use but the quantity of a particular kind of land use within the development. This control of the supply can cause scarcity effects as mentioned earlier and can increase the demand, thereby raising the price of the land-use. Sometimes indirect scarcity effects can also take place in the form of spill-over effects. The restriction on providing a specific size of parcel within a development can raise the demand of that parcel in the outside market and hence create an increase in the price outside.

Needham (2007) explains it a little differently in the context of the Netherlands. For the Dutch, planning is not just assigning land-use through a statutory plan but achieving a desired land-use this means that they don't believe in waiting for someone to make it happen. The municipalities have hence been playing the role of developers as well as land owners for a while through which they have guided development and earned money. Initially they would buy land but then later when it became hard to do so, they would end up making private deals with property developers regarding the use of land. This could be for both social housing and social purposes like schools, health centres etc. There are two important factors here that they used the planning process to earn money and they actively made land uses possible which enables land prices to go up in reality and not just as an idea.

2.3.2.2 Exactions

Exactions are a means of indirect value capture (Alterman, 2012). "... exactions are a form of land use regulation whereby a property owner must provide a payment or property in order to initiate land development." (Evans-Cowley, 2006, p. 1) "They (exactions) illustrate how

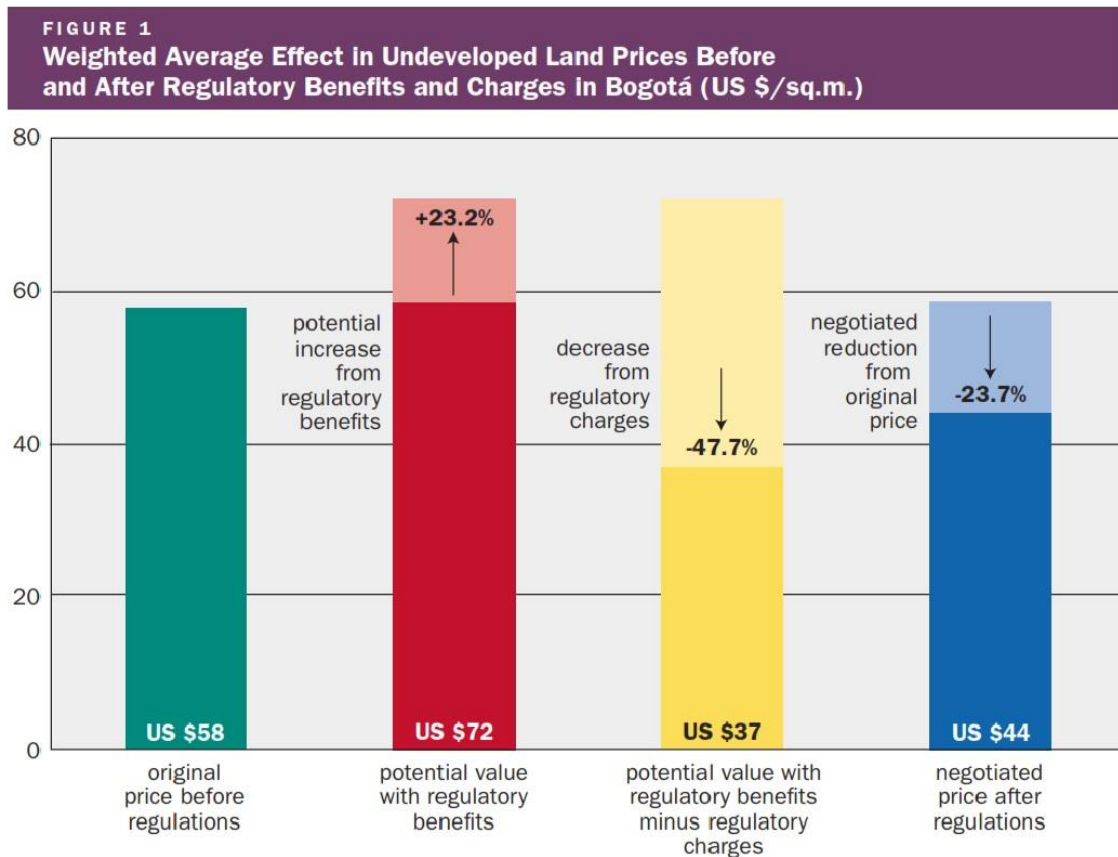
landowners may be compelled to make cash or in-kind contributions to obtain special approvals or permission to develop or build on their land. These contributions may be stipulated through subdivision or development agreements based on a particular norm or expectation, or they may be negotiated on an individual basis.” (Smolka, 2013, p. 32). One can deduct from the above definitions that exactions are then perhaps a one-time charge unlike taxes which are annual. Evans-Cowley (2006) continues to explain that at first there were exactions that were charged for infrastructural and amenity provision within the development but it later expanded to external exactions as federal governments reduced the budget of local governments. It can be deduced from this piece of information that there are two categories of exactions; external and internal. To add to it there are five different types of exactions according to Evans-Cowley (2006), these are:

- **Dedications:** This kind of exaction is when a developer is required to contribute land or a facility for public use. Often applied as an internal exaction the developers are required to dedicate land for a park or dedicate water and sewer lines within the development to be later maintained by the local government.
- **Tap Fees:** These are collected in funds that are used for improvements in the existing infrastructure network. The costs cover the tying in of new infrastructural lines to the existing ones amongst other things required in the process. It is an external exaction.
- **Fee-in-lieu:** Often it is impractical for each developer to donate land or facilities when they could be shared. In such instances the developers are required to pay a fee instead of donating land. The public sector can then use the fund to provide services and amenities where they are required. This is usually an external exaction.
- **Linkage fee:** These are used to pay for the secondary effects of development like affordable housing, job creation etc for big development projects to provide for their employees. This is an internal exaction.
- **Impact fee:** These are charges that are imposed on development to contribute to the impact they have on their external surroundings. Impact fee is an external charge that is usually assessed for roads, water sewers and storm water but can also be utilised at times for schools and fire stations.

If we tie the concept of exactions and the various types listed above to our underlying concept of ownership then they are essentially obligations that the developer has to fulfil to be able to use the rights. The rationale behind imposing exactions is often for the following reasons; they can allow cost recovery of infrastructural projects, they can be supplements for resources that are facing shortage of funds in the public sector for projects within or around the development, negative externalities of a project can be addressed such as noise and pollution etc, Mitigation of impacts on environmental and historic areas as well as social injustice like exclusionary housing and high house prices (Alterman, 2012). The last point made by Alterman (2012) regarding housing prices is a debated topic where one side argues that the exaction charges can be transferred to the consumers in the form of high house prices while the other side argues that the charges cannot be transferred and are absorbed by the land owner (Ochoa and Schechinger, 2007)

Ochoa and Schechinger (2007) discuss the concept of obligations and rights affecting the price of land. The issue is not only discussed in terms of the fact that if the costs (obligations) outweigh the benefits (rights) then there is a decrease in prices but if the benefits outweigh the costs then there is an increase in the price of land. Graph 2 explains this concept as explained by the authors through a study conducted in, Bogota, Colombia.

Graph 2: Land prices before and after regulatory effects



Source: (Ochoa and Schechinger, 2007)

In the case of Bogota, Colombia as discussed by the authors the costs and benefits form a more complex set of land regulations. The costs are in the form of inclusionary housing which is presumably a more refined version of the concept of Dedications.

2.3.3 Land Leasing

How is land value captured through the process of leasing of land?

“On the one hand, governments want to capture the ‘surplus land value’ as revenue to finance public infrastructure and social services. On the other hand, they do not want the capture to impede private incentives to invest in land and real estate. Balancing these two objectives is difficult” Hong (1998, p. 1).

The statement above highlights the dilemma faced by authorities who have to govern land. There are two systems of owning land and for contracting land. One is the free-hold and the other is the lease hold system.

In the following section the Lease-hold system will be explored and how it can be used to capture land value. In the case of Hong Kong the leasehold system is practiced such that the government holds the right to own the land. The rights to use exclusively, develop, transfer and profit from it are leased to developers or anyone willing to do so. The rights and obligations are established through a contractual agreement between the government and the person who wishes to lease the land. The contractual agreement specifies the area and the type of land-use allowed (Hong, 1998). There are two ways in which the land is leased in

Hong Kong explains Hong (1998) most of it is done through government auctions and in this way the highest bidder gets the rights. This way allows the government to obtain the highest premium. However, private treatise is also used to lease land to non-profit organisations and special industries which otherwise cannot compete with developers bidding the highest price. While the government auctions allow the lease period to be around 50 to 75 years the lease period for the private treatise is around 15 to 21 years.

Although discussing Hong Kong, Hong (1998) gives insight into how to break down the leasing system into its components to be able to understand it better and it's potential to enable value capture. The key then is to understand them to be able to define them in the system such that there is value capture as well as the allowance for the lessee to be able to earn a profit to avoid inequity in the society (Hong and Bourassa, 2003). The lease hold system offers four ways of capturing increment in land value (Hong, 1998). These are:

- At the initial establishment of the land leases
- Through the collection of land rent
- Through lease modifications
- Through lease renewals

The initial establishment of the land lease is discussed above. Hong (1998) discusses two ways in which ground rent was looked upon. One, in which it symbolises the fact that the land belongs to the government and it is just a token that there is no formal effort going into it as a revenue generation exercise and hence it usually remains the same throughout a period of time. The other option, as Hong Kong began to practice after it became part of China again, was that the ground rent could be adjusted according to the reappraised rental values. This allows a land value capture to take place through ground rents.

Lease contractual agreements have room to be modified. There are two types of modifications as explained by Hong (1998), those that involve minor revisions and those that involve major revisions. There is a modification premium that is charged. For the minor revisions usually a formula is defined so low negotiation cost is incurred. Major revisions incur higher costs. This is because there might be disagreement regarding how to calculate the premium for all the modifications. Estate surveyors are often hired (Hong, 1998) Also there might be unwillingness to work together between the government and the developer.

The lease renewal takes place when a lease runs out. There are two kinds of leases in Hong Kong; the non-renewable lease and the renewable lease (Hong, 1998). The renewable lease is one where the lease gets renewed for another 50 years upon its end without any additional premium. In this case only the ground rent gets increased by 3 percent of the estimated rental value of the property. In the case of the non-renewable lease, Hong(1998)explains, the government repossess all the rights and they have to be applied for again. The government can also choose to renew the lease and compensate the leaseholder for the property if it is needed for a public purpose.

2.4 Summary and Analysis of the concepts

2.4.1 Summary and Analysis of Land Acquisition

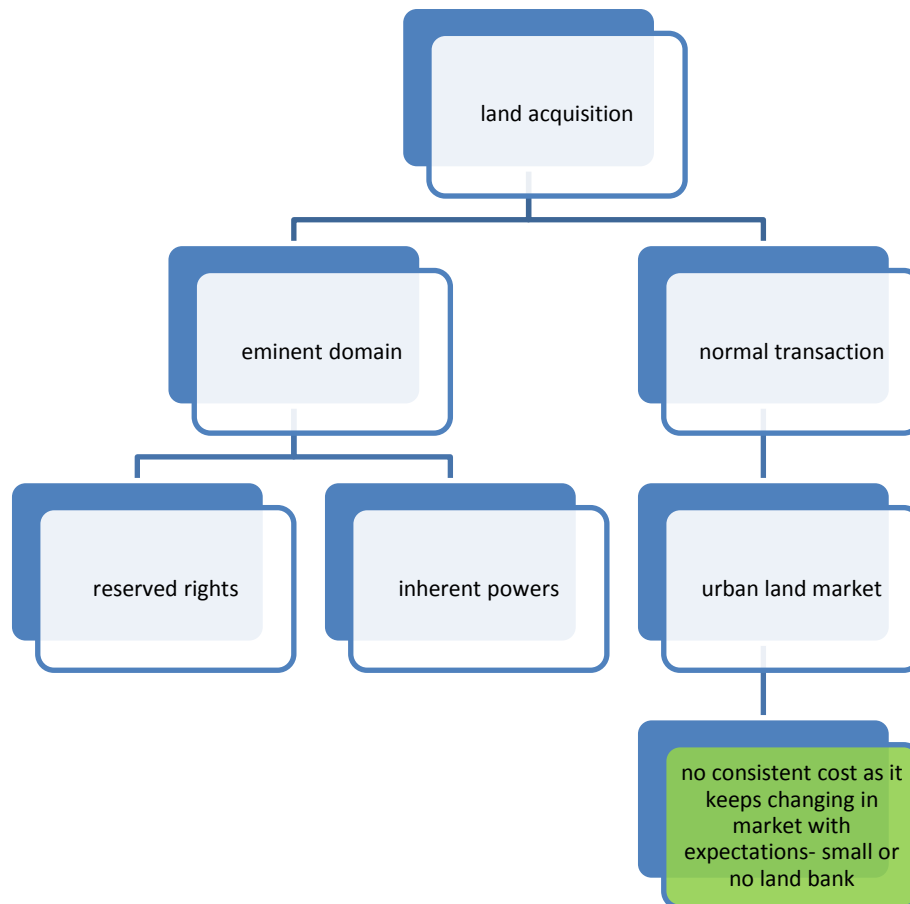


Figure 2: summary of land acquisition concept (1 of 5)

Figure 2 summarises the theory of land acquisition. There are two ways in which land can be acquired – through eminent domain or through a normal transaction in the land market. The price of land in the land market is never consistent and keeps changing according to the information streaming in that determines the demand. In such a situation a developer can only create a very small land bank or no land bank as the land owners or land users can pick up on intentions of its future use etc. If however eminent domain is used to acquire land then there are two initial understandings under which it can be used. One, is reserved rights and the second, inherent power.

In the following analysis it must be kept in mind that the measure of profit earned or value captured is (a) the ability to form a land bank and (b) the size of land bank.

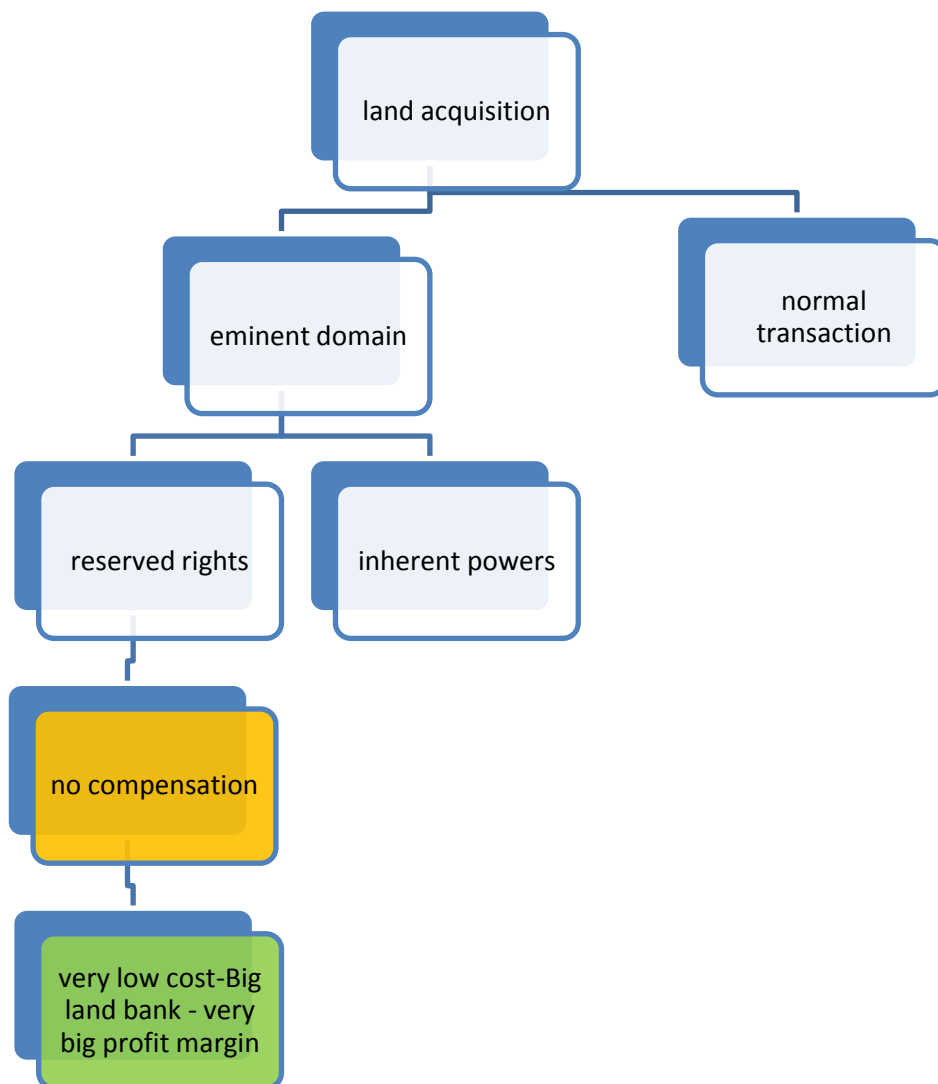


Figure 3: Summary of land acquisition concept (2 of 5)

Figure 3 elaborates on these two types of eminent domain. Under the larger understanding of reserved rights, the person using the land has no authority over the property as per the reserved rights, so they can be asked to vacate with minimum or no compensation for loss and damages by the state. In such a case if the state is on the side of the developer, the developer is able to create large land banks under the patronage of the government as (a) a big percentage of compensation is removed from the cost of acquisition so it will probably be lower (b) since there is only one land owner and no competition along with being on the same side (the developer and the state) there will be no increase in the cost of land and it can be acquired at the same cost in one contract. This makes a greater profit gain in the long run as it is the ability to acquire a bigger amount of parcels of land at one cost rather than acquiring the same amount of land in stages at different costs like developers often have to do to acquire land in the land urban land market.

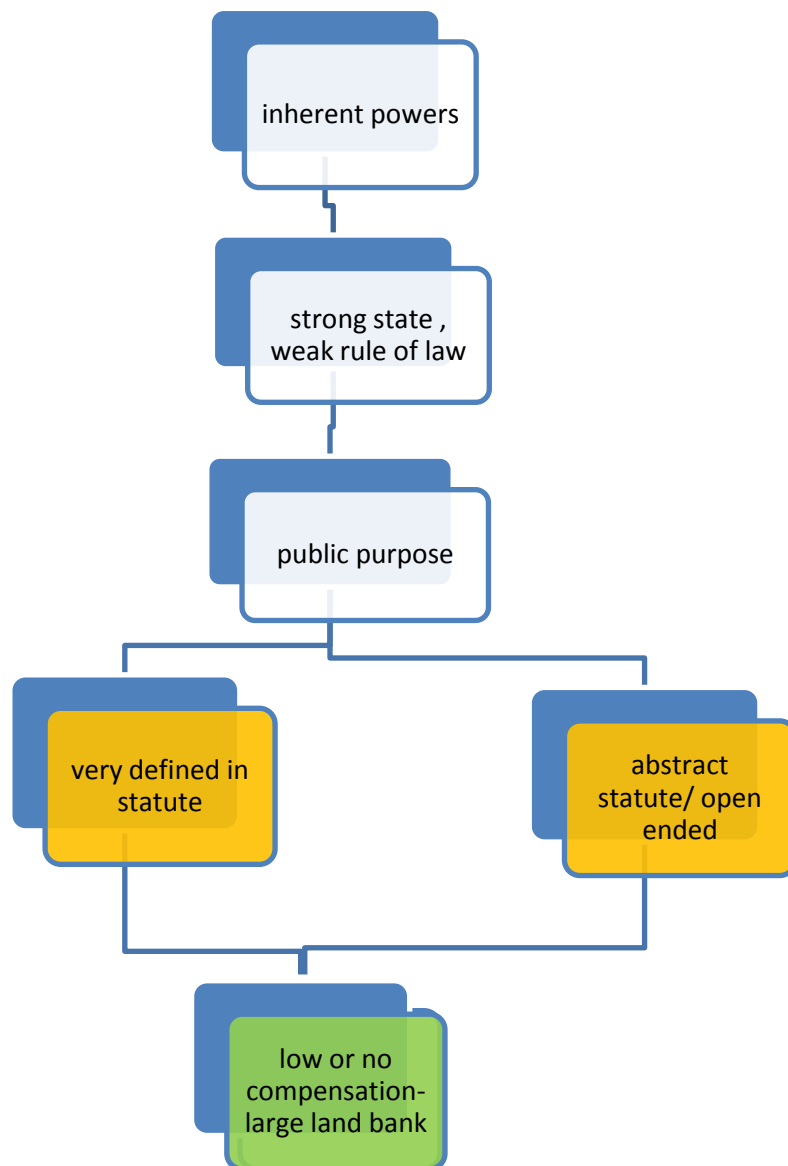


Figure 4: Summary of land acquisition concept (3 of 5)

Figure 4 summarises if the eminent domain is defined around the Inherent Power principle then there are three categories of practical outcomes- Outcome 1 is that the state is strong and the judiciary and the property rights movement are weak, in such a scenario the legal framework for eminent domain allows compensation but since the State is stronger than the judiciary, it can influence it and the compensation can get minimised or be non-existent. In this scenario there are two sub categories – category A is in which the judiciary is weak due to insufficient laws- example the definition of ‘public purpose’ is not well defined in the law and can have an open interpretation which leaves room for judgements being influenced in interpretations. Or category B it is weak because even though the laws exist the state is able to influence the judiciary’s decisions. Both cases lead to no or low compensation and the possibility for a large land bank.

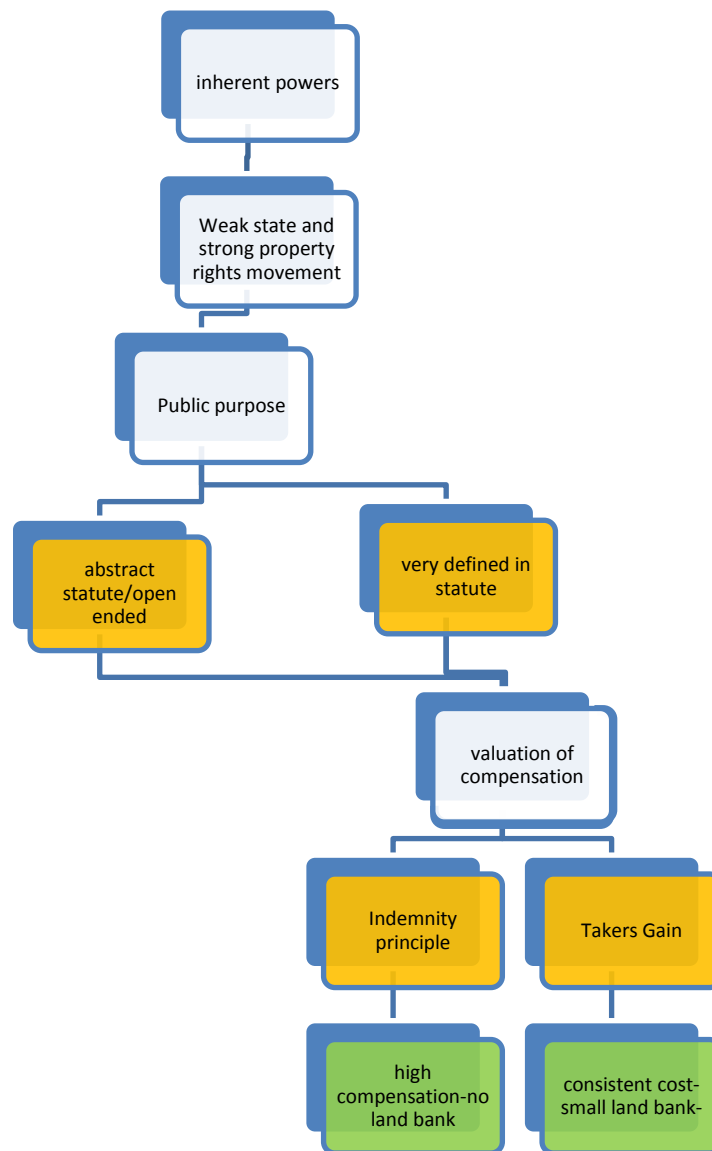


Figure 5: Summary of land acquisition concept (4 of 5)

Outcome 2 is that the judiciary and the property rights movement are stronger than the state. At its strongest this results in the state paying heavy compensation and often eminent domain stops being an option. In terms of land banks being created by developers this can be due to two obvious reasons- either the legal system is very well defined as in the case of definition of ‘public purpose’ or even if it is open ended the judiciary still defines it in favour of property rights. Such a case whether in favour of the developer or the poor does not allow the formation of land banks at least in the hands of anyone other than the land owned by the State. This is because in either case the compensation will either be based on the Indemnity Principle or the Taker’s Gain which will both refer to the market value of land. The market value cannot be easily manipulated and so the compensation will become a heavy initial cost for any project to be undertaken.

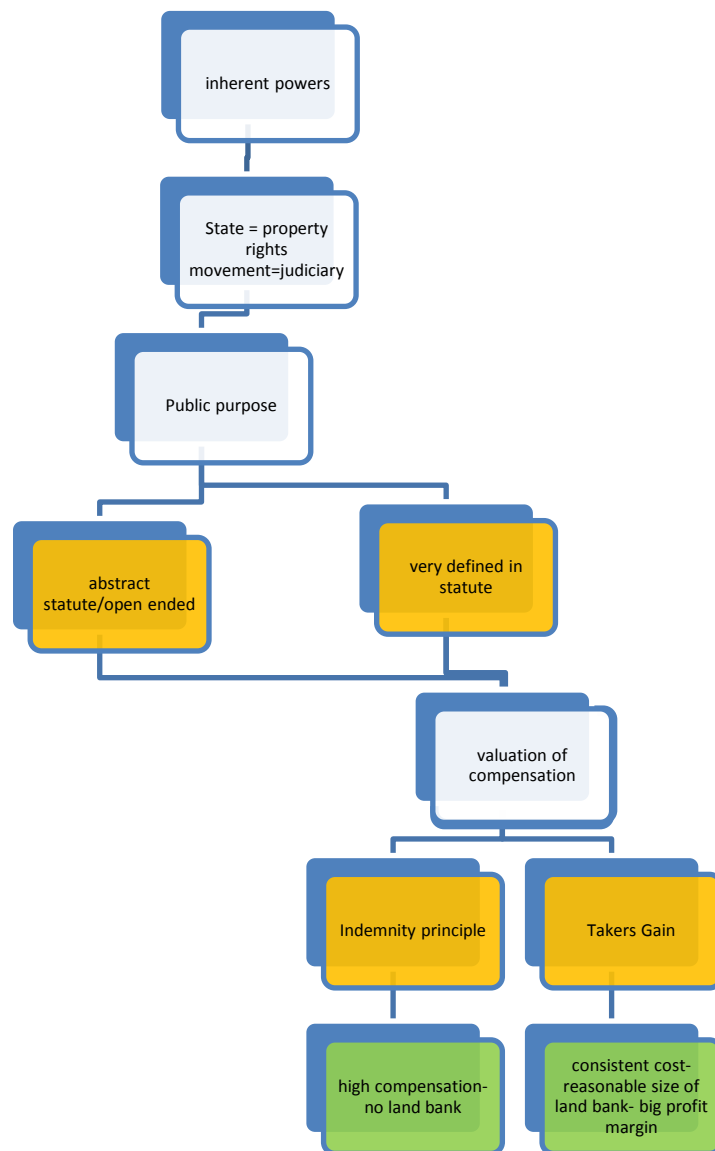
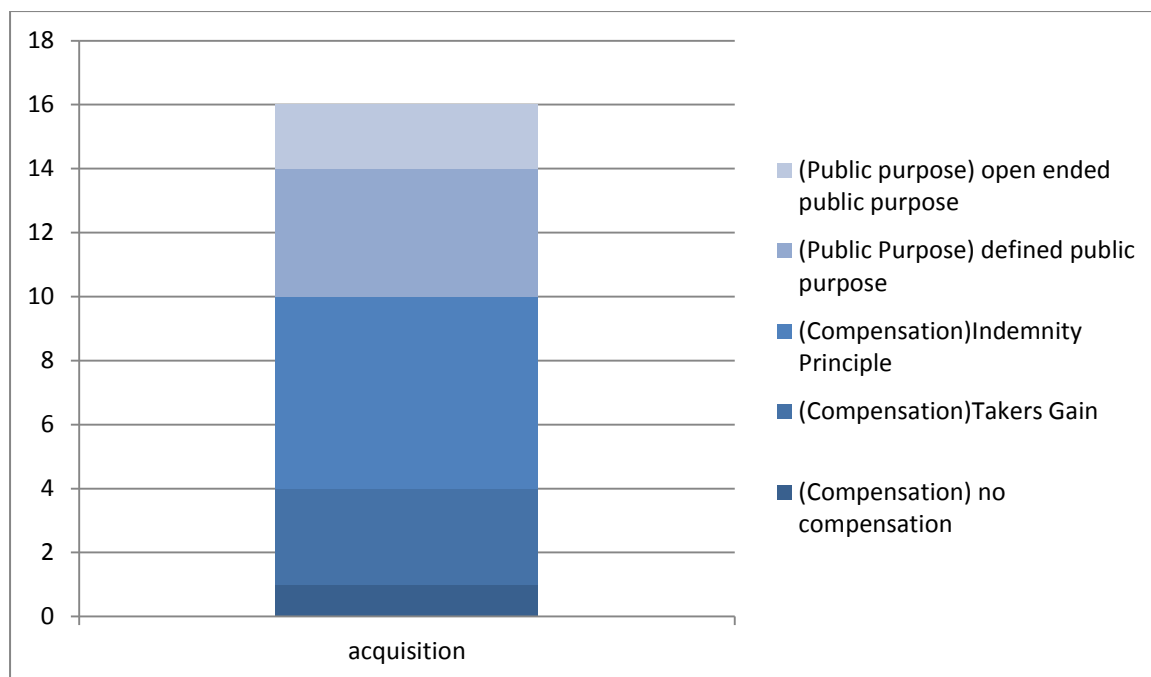


Figure 6: Summary of land acquisition concept (5 of 5)

Figure 6 discusses option 3 in which the state, the property rights movement and the judiciary are equally powerful. In this case the power of eminent domain is allowed but land banks are still hard to form as indemnity principle or the takers gain will dictate the cost of land to the developer and it will make the developer spend more initially, decreasing the profit.

It must be noted that the components mentioned in the figures above can create countless mutations. The bar chart below (figure 7) shows their simplified rough representative share in the overall cost of land acquisition. It must also be mentioned that under the inherent power system, the no compensation component includes manipulated value of lands.



Graph 3: Representative shares of Land acquisition components.

Figure 7 shows the component of land acquisition as discussed in the literature review. According to the discussion their representative share in the over-all cost is shown. An open ended public purpose definition that is not very well defined in the statute is prone to being unjustly translated by the judiciary and can be manipulated to prevent the rightful person from capturing the value of land. it hence holds a share of 2 units. Defined public purpose is less likely to be manipulated and in countries where it is defined there is less chance of eminent domain so if in use this will increase the cost of acquisition hence its share is bigger than the undefined public purpose. Indemnity principle and Taker's gain also hold a big share because they will increase the cost of acquisition if in use.

2.4.2 Summary and Analysis of Land Regulations

The costs and obligations run throughout the real estate process and ensure that the rights and benefits being practiced are under equitable conditions and prevent the tragedy of commons. The regulations stage can have three major effects. Again whether the state is strong and on the side of the developer against a weak judiciary and property laws movement plays a big role. It determines the obligations to which the rights are accorded. The planning and exactions together in various combinations can determine the three effects that determine how much the developer can gain profit or not. The restriction effects will reflect more through costs and obligations that is how much authority does the Government of Pakistan have over the land they have leased to DHA and how much rights have been accorded to DHA. They have hence been indicated with a blue colour.

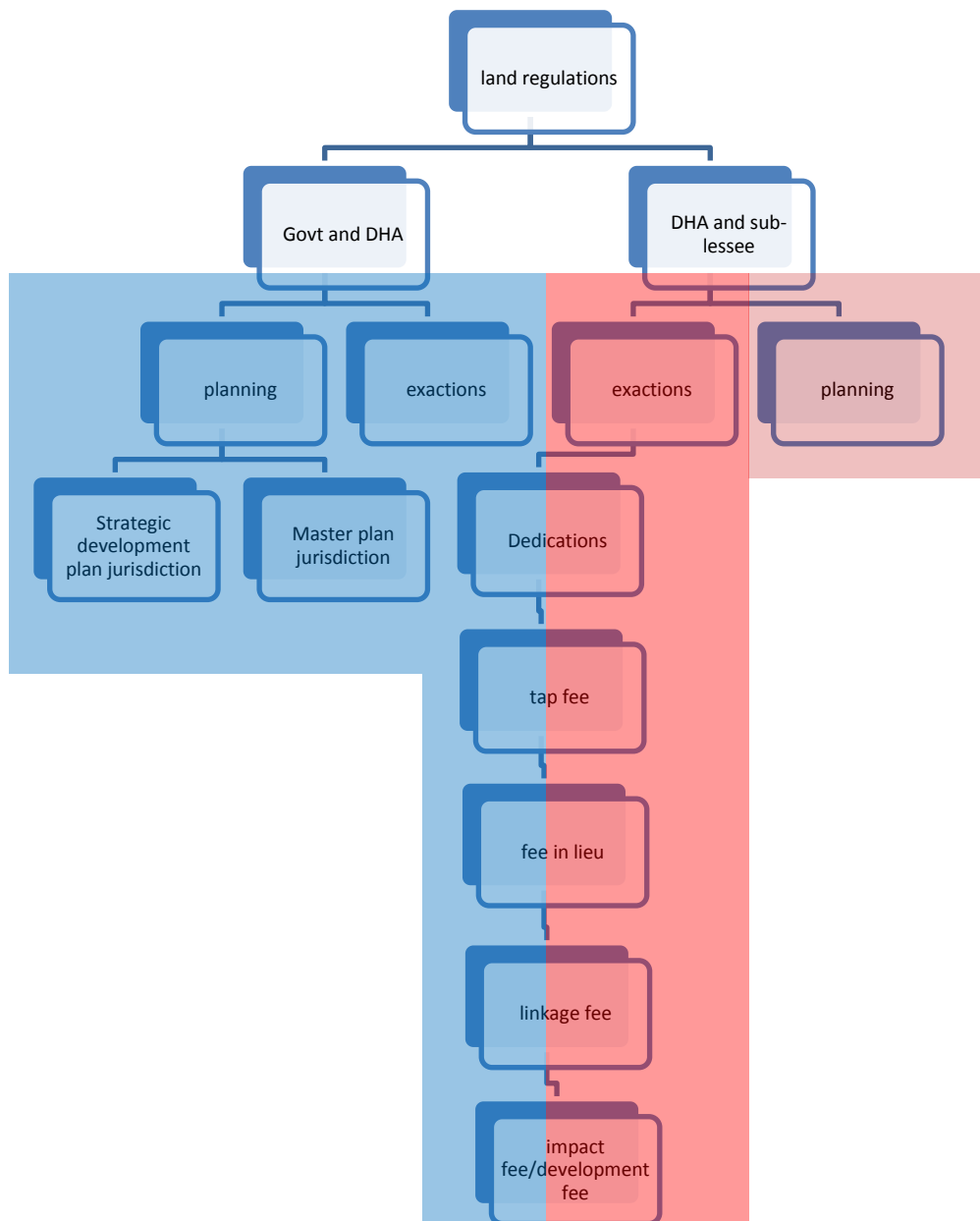
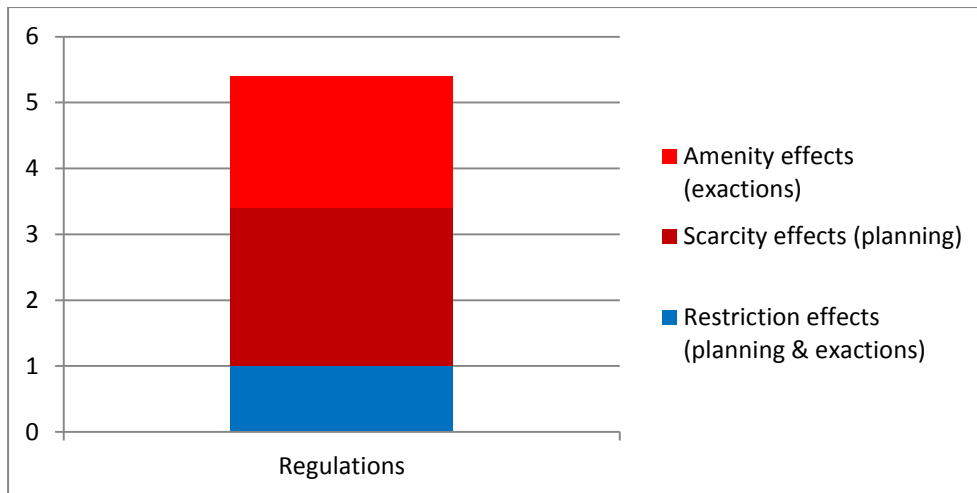


Figure 7: Land regulations summary

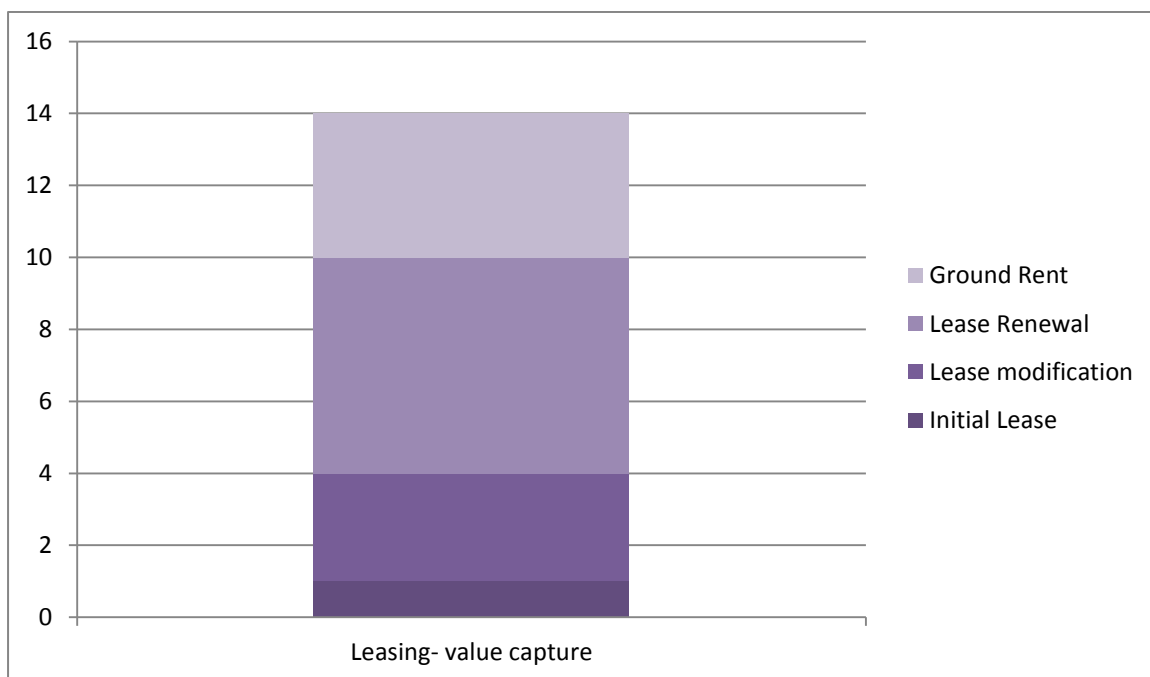
The Amenity effects and scarcity effects will be affecting the value of land by mostly causing it to increase. Hence they have been highlighted in red. They mostly represent the benefits.



Graph 4: Land regulation components

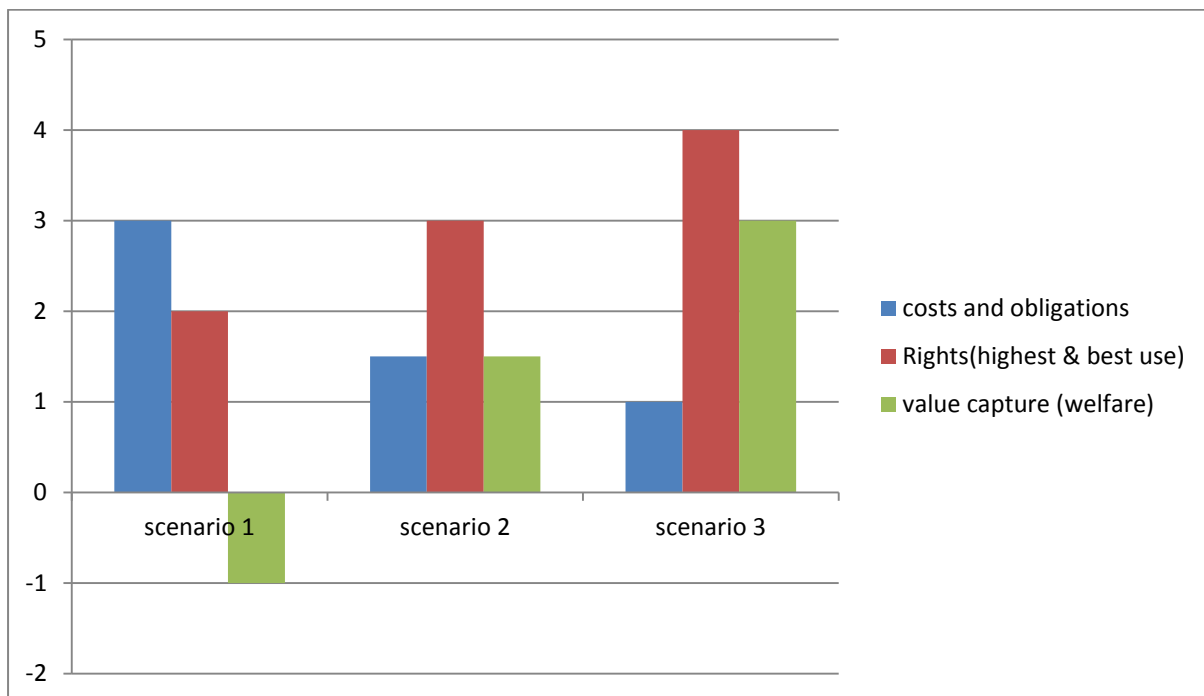
2.4.3 Summary and Analysis of Land Leasing

Land leasing offers four ways of capturing the land value for the Lessor. Depending on the nature of the four components and who the lessor is will determine who captures the land value and who bears it as a cost. The components can be summarised in the following visualisation:



Graph 5: Land leasing components

2.5 Conceptual Framework



Graph 6: Conceptual framework

Summarising the literature, it has identified 3 situations that can take place.

Scenario 1 represents a situation in which the over all costs and obligations are very strict. This means that the acquisition of land requires payment of compensation or the government does not consider the real estate development project as a public interest and there is no eminent domain or that the property rights and judiciary are stronger than the government preventing the eminent domain in which case land has to be acquired through negotiation with each individual in the land market. This can mean that the initial costs rise much more as a land value rises with the original land owners more aware of the potential of the land. The obligations at the land regulations stage not only prevent the highest and the best use of land by dictating land use but also charge a development fee that is equal or more than what the house owners can afford. There by transferring most of the cost on to the developer while the value capture goes to the . At the third stage the developer has no rights to collect any lease rent or the lease rent is so low that it fails to collect the running costs of the developer. The developer not only doesn't capture any land value but also goes into a loss.

Scenario 2 represents a situation in which the judiciary, the state and the property rights movement are equally strong. In such a case there is both an option of eminent domain as well as transaction through the open market but it is more likely that no one will be bullied. A developer is least likely to have a land bank in even this situation as everyone's rights will be taken care of due to a strong property rights movement. Planning autonomy will be given to the developer at a charge and over all the obligations and the rights will balance each other out in such a way that the state and the developer/landowner will capture equal value.

Scenario 3 represents a situation in which the government or the state are not only strong but favor the developer or create favorable conditions for the developer which result in reduced costs and obligations in the form of public purpose being not too defined and so left at the judiciary's discretion to define where the judicial system is already weak along with the

property rights movement when compared to the government. Favourable conditions can also mean that planning autonomy is given to the developer and exactions are not imposed. The ground rent is low along with the premium and the leasing contract not very binding. Hence most of the land value captured goes to the developer and not the even the as perhaps a form of subsidy.

It is suspected that scenario 3 is the case of this thesis however the combination of obligations and rights and costs and benefits that are come into play in the framework is what needs to be understood and explored.

Chapter 3: Research Design and Methods

3.1 Research Strategy

The Defence Housing Authority, Karachi, is a real estate venture that falls under the third Pakistani military welfare model (Siddiqua, 2007). It is the first venture under the third military welfare model after which it has been replicated in many other cities of the country. The real estate is used to provide welfare to military officers. This land owning agency also constitutes 5 percent of the urban land in Karachi and all the land under its jurisdiction is categorised as ‘very high’ to ‘high’ valued land. These two factors make it a unique case to study. The research objective is to explore the influence in land value that is carried out by the Defence Housing Authority through land instruments and how it benefits its beneficiaries under the banner of a military welfare venture. This objective in its very nature being related to value of land over a period of time cannot be isolated and conducted as an experiment or a Quasi-experiment strategy. The phenomenon of change in land value through the land instruments cannot be isolated as land instruments function under a legal and social framework. In a real estate process such as this, three main instruments come into play as discussed in the previous chapter. All three have an effect on the value of land. Since the objective of the study is to study how a particular agency, in this case, DHA influences land value through the three land instruments, the strategy becomes a case study as it studies the causal relationships of a phenomenon, which is the change in land value, in the context of DHA (see fig 5).

Ideally, it would have made the study richer if there had been a comparison at each stage with a non-military developer but the researcher has deliberately kept that out of the scope of this research because the basis upon which the comparison can take place is not only limited to military versus non-military. Comparisons cannot be made unless there is a baseline understanding of the system in question according to which one can compare. A comparison can perhaps be conducted at a superficial level of military and non-military but the fact that one is a welfare system and the other a profit making one changes the category they fall under and the context becomes the city of Karachi rather than the Defence Housing Authority. The fact that no non-military developer or development is as big as DHA in the city is also another issue that makes comparison difficult. The scope of the study increases considerably and the time for field work becomes insufficient.

A comparison with another case can be created at the next stage in a follow up research. For the purpose of this research a comparison will be created with the theory set in the theoretical chapter categorising it under the typical and deviant case study.

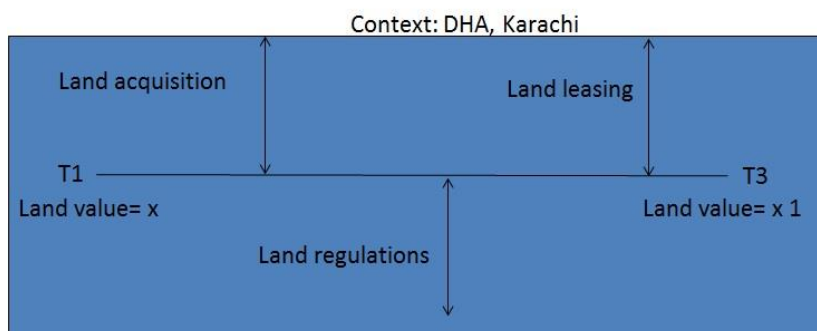


Figure 8: Causal relationships of a phenomenon

3.2 Research Question(s)

A hypothesis underlines the research sub- questions. In some sub questions it has emerged clearly while in others it is silently implied. The hypothesis is that the Defence Housing Authority acquires land at a low cost, develops it with minimum obligations (costs) and maximum rights and then leases it to the high income group both military and non-military (which is one of the highest and best uses). The captured value is used for welfare (graph1)

Box 1: Research question

Research question:

To what extent does the Defence Housing Authority, Karachi, use the real estate process to provide welfare to its beneficiaries?

Sub-research questions:

1. How is the cost of land influenced through the process of land acquisition? Is the land acquired at a low cost?
2. To what extent is the land value influenced through the process of land regulations?
3. To what extent is the land value captured through the process of land leasing?
4. To what extent does this land value benefit the military members?
5. Can this be understood as welfare?

Sub question 1 is going to answer how land value is being influenced through the process of acquiring land, while answering this it will also be answering that if it is then at the expense of someone else's rights. The first part of the question asks 'how' it happens while the second part tests a possible hypothesis that will be answered through the first part. The intention in asking a descriptive question first is so the process is understood and then while it is being understood it is also being evaluated so the second section that proposes a hypothesis can be answered.

The intention behind sub question 2 is to find out to what extent land use regulations are used to increase the value of land so it can be perhaps captured for welfare. It looks at the kind of obligations that are incurred upon DHA and whether it meets them or not. It also looks at if DHA has the power to incur obligations on its members. The obligations are measured in the form of exactions and planning regulations imposed which in turn help to identify the amenity effects, the scarcity effects and the restrictive effects.

Sub question 3 looks at how the land value is captured mainly through leasing however the purpose is to see how the leasing framework works to enable it and if it is effective.

Sub question 4 intends to achieve two things- to be able to describe the process through which land is given to military officers and through that process try to establish how they benefit from it. It uses qualitative and quantitative data to piece together the process.

Sub question 5 looks at the objective of DHA as discussed in the regulation manual regarding welfare and compares it to its ground reality regarding welfare provision to preliminary conclude if it can be called a welfare system.

3.3 Operationalization: Variables, Indicators

The Literature review engages three land instruments in the real estate process. These land instruments function as concepts which are; Land acquisition, land regulations and land leasing.

The literature in the previous chapter discusses two ideas with reference to land value which can be represented as variables for land acquisition. They are eminent domain and its resultant Land banks. The value of land is the third variable which is drawn from the sub research question. The indicators for eminent domain are compensation, public purpose and the power of eminent domain. The importance of these indicators is that they help establish the legal framework and how DHA functions within that legal framework there by helping establish how the framework is used to affect the land value. The size of land bank established becomes an indicator of not only the fact that if DHA is able to form one but also indicative of how it is able to have a land bank considering the legal framework established by the findings of eminent domain. The cost of the land at the time of acquisition puts the nail in the coffin in establishing exactly if indeed the low cost had a role to play in establishing the land bank and what caused the cost to be low.

Land regulations as a concept is broken down into two variables, planning and exactions, which are further broken down into their indicators. What is important to establish in the case of land regulations is that DHA is a developer and land owner that has a set of rights and obligations- how much is it meeting the obligations and how much right does it have to exercise over its property through which it is able to influence the land value perhaps even capture it.

Land leasing as a concept is defined by four variables. These variables along with their indicators help to establish two things- one, the lease agreement between DHA and the Lessor and two, DHA's framework regarding its members.

Table 1: How is the cost of land influenced through the process of land acquisition? Is the land acquired at a low cost?

Concept	Variables	Indicators	Data Collection Methods	Data Source
land acquisition	Eminent Domain	Compensation	Primary Data, Secondary data	DHA official interviews Lease document 1975 Pakistan Fisherfolk forum(NGO) Website
		Public Purpose	Secondary data, Primary data	Interview with an advocate of law- Salahuddin Ahmed DHA presidential order DHA regulations manual
		Power of eminent domain	Secondary data	Lease document of 1975 Lease document of 2003 DHA presidential Order DHA manual
	Land bank	Area of land acquired in batches	Secondary data	Lease document of 1975 Lease document of 2003 DHA presidential Order DHA manual
	cost of land	Value of land	Secondary data, Primary data	Lease document of 1975 Lease document of 2003 Valuation tables

Table 2: Data collection guiding questions for land acquisition indicators

Indicators	Questions
Compensation	Was there any case of compensation for an earlier land use? How does the law define compensation?
Public Purpose	How is public purpose defined in the law? How is it interpreted?
Power of eminent domain	Does DHA have the power of eminent domain?
Area of land acquired in batches	What is the status of the land in DHA's jurisdiction? How much area did they acquire in their land bank? How many batches was it acquired in?
'fair' market value	Was a fair market value determined? What was the cost of land? how was it determined?

Table 3: To what extent is the land value influenced through the process of land regulations?

Concept	Variables	Indicators	Data Collection Methods	Data Source
land regulations	Planning	Types of Land use	Secondary data, Primary data	Lease document 1975 Lease document 2002 Lease document 2003 Google earth satellite images Master plan prepared by estate agents Estate agent interview Estate agent website
		Area of each land use		
		Planning powers		
	Exactions	Internal land dedications	Secondary data	Lease document 1975 and maps DHA website DHA regulation Manual Google Earth satellite image Estate agent master plan for DHA Estate agent website
		External land dedications		
		Fee in lieu		
		Tap fee (internal)		
		Impact fee (external)		
		Linkage fee		
	Value of land (first sale by DHA)	Value of land	Primary data	Interview with military retired officers who got allotted land.

Table 4: Data collection guiding questions for land regulations indicators

Indicators	Data collection guiding Questions
Types of Land use	What kind of different land-use conversions have been carried out through planning? Was there a master plan
Area of each land use	What is the area of each land use?
Planning rights	What is the relationship between the city and DHA as far as planning is concerned?
Internal land dedications	Were there any exactions imposed on DHA as a developer?
External land dedications	Did DHA impose any exactions as an authority?
Fee in lieu	
Tap fee (internal)	
Impact fee (external)	
Linkage fee	
Value of land	What was the value of land?

Table 5: To what extent is the land value captured through the process of land leasing?

Concept	Variables	Indicators	Data Collection Methods	Data Source
land leasing	Initial lease	Type of land use	Primary data, secondary data	Contracts of leases, DHA regulations manual, DHA officials interviews, Leasees interview
		Rights (contract)		
		Obligations (contract)		
		Premiums		
		Method of acquiring-eg auction etc		
		contract		
	Lease modification	Modification	Primary data, secondary data	Contracts of leases, DHA regulations manual, DHA officials interviews, Leasees interview
		fee		
		fee		
	Lease renewal	fee	Primary data, secondary data	Contracts of leases, DHA regulations manual, DHA officials interviews, Leasees interview
	Rent collection	Type of land use	Primary data, secondary data	Contracts of leases, DHA regulations manual, DHA officials interviews, Leasees interview

The indicators in table 5 are self-explanatory as far as their guiding data collection questions are concerned.

3.4 Synopsis of Data Collection Limitations

The field work for the research was carried out between 23 June 2015 to 20 July 2015. A few aspects of the field work caused delays and the actual research work was done between 6 July 2015 and 16 July 2015. These were both limitations that were anticipated and unanticipated.

It was already anticipated that a study about the military was going to have information dark spots as the military bundles a lot of information for public purpose under operational work and defines it confidential. However, a major drawback to the research that wasn't anticipated was extra cautious military representatives as a 'land grabbing' case was unearthed by the para-military organisation and quite a few number of government officials were arrested days before the field work started. The result was a big rift between the ruling political party whose government officials from the land related departments were arrested. As a result the officials of the land department of the government were unavailable for any meetings. The Defence Housing Authority, Karachi falls under the military and is headed by the 5 Corps Commander who is the head of the military activity in Karachi and falls directly under the defence secretary. Due to it being a branch of the military land department it was under a stricter check as the researcher was only able to meet two officials who chose to meet at the same time and not separately.

The second unanticipated limitation was due to a heatwave around the first week and a half of the research that involved an important contact person, an experienced land researcher, being unavailable due to health issues related to the heat wave. This along with the city under undue stress resulted in delays.

The third unanticipated limitation was realising the level at which land records as well as government public documents were unavailable. The Karachi Municipal Corporation used to have a library with all the documents published by the government available in it. The library then stopped existing and it was very hard to trace some public information that the government officials were referring to in the interviews. They insisted the information and maps were present in all book stores but that was not the case. The field work involved

locating publishers who publish government documents and requesting them to locate the documents in their archives. This helped to locate some of the land related documents that were otherwise inaccessible as land records department experienced a fire and all the records were lost.

3.5 List of Data Collected

Primary Data	
	Interviews
1	DHA Advisor Special Projects-Shaukat Ali Alvi
2	Ex Administrator DHA- Col. Munnawwer Hussain
3	Estate Agent-respondent X
4	Contractor of gated housing schemes
5	Allottee A - Phase 6
6	Allottee B - Phase 8
7	Allottee C- Phase 8
8	Allottee D- Phase 8
9	Commissioner Karachi- Shoaib Siddiqui
10	Director- Master Plan Department- Hafiz M. Jawed
11	Project Manager/superintending engineer KMC- Khalid Masroor
12	Chief Engineer –Transport and Communication Dept-KMC-S.M. Taha
13	Advocate- Salahuddin Ahmed
Secondary Data	
	DHA Documents:
1	Lease contract 1975
2	Lease contract 2002
3	Lease contract 2003
4	Lease contract for amenity plot contested case
5	DHA regulation mandate
6	DHA presidential order
7	DHA online info
	DHA Today- details of all the zones and their areas in phase 8
8	DHA website
9	Government documents
	Arterial Roads under KMC 1988-1996
10	Budget Highlights 2015-1016
11	Federal Govt. documents
12	Valuation table 2001
13	Port Qasim Authority Act
14	Cantonment Board Clifton bye-laws
15	Legal land publications
	Land acquisition laws
12	Port Qasim Authority land allotment policy

3.6 Data Collection Methods

The kind of data that was required for the research questions was of both types- qualitative and quantitative.

Qualitative data was required in the form of understanding how the land instruments are designed and carried out in practice. It was also required in the form of legal clauses that needed to be understood. Often, the definitions in legal documents are open-ended and as a result have a margin for interpretation- this margin of interpretation is quite often how processes take place in reality. While collecting data from legal documents, and DHA documents fall under secondary data collection, to understand their ground reality it became very important to conduct semi structured and unstructured interviews with people who had knowledge of this. This helped to understand the process and its reasoning. A non-probability, purposive sampling method was used and the following people were interviewed; officials of the Defence Housing Authority, the officials of the City District Government Karachi, an estate agent, a lawyer, a contractor of housing schemes and four military officers who got allotted land were interviewed. The interviewees were mostly asked to explain the process- the questions in table 2 and 4 above served as guides for the interviews.

An underlying snowball method was in play as all these people were accessed through mutual contacts due to the limitations stated in the section above. Interviews could only be arranged if mutual contacts could be found in the case of the officials for both the DHA and the city government. To counter the problem faced regarding peoples' willingness to participate once they realised it was related to the military a few respondents were asked very specific questions without giving them the specifics regarding the study. One in particular was the contractor of housing schemes who was informed that a study to compare development charges with development cost was being conducted. This was to find out the development cost.

Quantitative data was also required in the form of land values. For this again both secondary data and qualitative methods of collecting data were used. A lot of the information could be found in the lease documents of 1975, 2002 and 2003 that helped and was the only source of land premium rates and ground rates as well as the breakdown of land acquisition. It was the source for the rights that were leased to DHA by the Government of Pakistan and what obligations were imposed. Because there was a general weariness in people to discuss this topic only two original military allottees could be interviewed who were willing to share their transactional details. They spoke out of memory but had no documents. The letter of allotment they informed had to be handed in upon resale of land. An effort was made to contact more allottees through contacts and six possible people were approached but only two agreed to discuss it.

3.7 Sample Size and Selection

The entire land that falls under DHA was not selected. DHA, Phase 8 was selected because lease document of 1975 covers the land that falls under phase 8. Lease of land acquired in 1974 was not available although a court document mentioned the land acquired through that lease. Phase 8 was also selected because it still has undeveloped land that is not allowed construction but its lease rights continue to be sold in the market as the land was allotted to military officers right after it was acquired by the government of Pakistan. Parts of DHA land that were also reclaimed fall under phase. Hence phase 8 appeared to be a good specimen to study because the most information was available about it and it had land in the different stages of the real estate process.

3.8 Validity and Reliability

External Validity: It must be highlighted that due to its single holistic nature that is, a very specific context, this study is not useful for generalising a theory or a practice. Its role is to add to the knowledge bank of the trends in real estate implementation of land instruments to achieve a specific objective (in this case influencing land value for welfare). Its role and importance lies in being a part of a bigger study to understand the different kinds of understanding and implementation of the nature of land that take place within the city of Karachi.

Internal Validity: The internal validity in the form of triangulation of data to cross check it has already been explained in the section above. The triangulation will allow the data to be more accurate as it will be representing different sources on the same data.

Reliability: It will be insured that the documents that will be used as secondary data will be published and official documents and records.

Chapter 4: Research Findings

4.3 Field work Analysis through sub research questions

4.3.1 How is the cost of land influenced through the process of land acquisition?

Is the land acquired at a low cost?

This question was asked based on two ideas. It is understood at this point that land value appreciates and that is the main point behind a real estate business. Real estate welfare hence becomes a way of providing welfare through land as established from the previous sub question. This question focuses on the first part when land is acquired and how is that initial cost influenced. The hypothesis presented was that perhaps the cost of land is influenced and DHA acquires it at a low price. The following indicator questions seek to establish if they influenced the initial cost of land to DHA. This question also seeks to establish not just in terms of a monetary cost gain but also the gain in terms of rights and were they balanced out by obligations or not.

- **What is the status of the land in DHA's jurisdiction? How much area did they acquire in their land bank? How many batches was it acquired in?**

The lease contracts accessed and a discussion with advocate Salahuddin Ahmed establish that land is leased to DHA by the federal Government also known as Government of Pakistan. All land is the property of the government of Pakistan ie. the Federal government and it has been leased to the provincial governments, local governments and various authorities over the years. The lease contract of 1975 indicates the federal government as the lessor and DHA as the Lessee. The contract is officiated through the Military Estate officer, Karachi on behalf of the Government of Pakistan (Federal government).

The DHA's official website⁶ indicates that they have 35,599,964 sq.m of land in 2015. The DHA regulation manual states that the first batch of land was 308,368 sq.m in 1954. The next batch consisted of 11,636,822 sq.m in 1974. This land makes up the first seven phases of DHA. In 1975 another 14,247,958 sq.m were acquired which make up a big part of what is DHA phase 8, this information has been taken from the lease contract of 1975 between the DHA and the Federal government. In 1979, as stated by the DHA regulation manual (1980), land was reclaimed and in 1980 the total amount of land that DHA had in its land bank was 32,981,665 sq.m. It can be deduced that the amount of land reclaimed by 1980 was:

$$32,981,665 - (308,368 + 11,636,822 + 14,247,958) = 6,788,517 \text{ sq.m}$$

It can hence also be deduced due to a lack of any other leases for additional pre-existing land that from 1980 till 2015 the increase in the land area from 32,981,665 sq.m to 35,599,964 sq.m was land acquired through reclamation (see Table 7).

$$35,599,964 \text{ sq.m} - 32,981,665 \text{ sq.m} = 2,618,299 \text{ sq.m}$$

This can also be deduced because one of the documents from the litigation mentioned above shows a map (map 4) of the reclamation that has taken place since 1975. A similar map has been published by SHEHRI which shows a satellite image of the land change from 1975 – 2001 (Map 5)

The DHA officials who were interviewed declined from giving any information regarding the official area or cost of reclamation. They referred to the official website for the total area and

⁶ <https://www.dhakarachi.org/about-dha.aspx> - accessed 12-08-2015

cost. The leases were obtained as part of public information in a litigation case between DHA and a private resident of DHA over a contested land-use change. The litigation is in process.

The claimant attorney of the litigation provided further insight into the land contestation issue. New contract leases were signed in 2002 and 2003 over parts of the land acquired in 1975 and the reclaimed land. The contestation of ownership of parts of this land were between the federal government (which had leased the land to DHA originally) and Port Qasim Authority which is an authority established by the federal government in 1973 through the Port Qasim Authority Act 1973. A clause in the act establishes the limits of the PQA as “any portion of the shore with in fifty yards of high-water mark.” (Port Qasim Authority Act 1973 p.3) These two leases will be discussed in detail in the next section.

It must be highlighted at this point that the amount of time it took to resolve the lessorship issue between the government of Pakistan and the Port Qasim Authority shows the complications involved in matters related to land. If the legal aspect is taken into consideration it is very clear the land that falls into PQA jurisdiction and the contestation time makes no sense. This aspect will be discussed further as more findings are discussed.

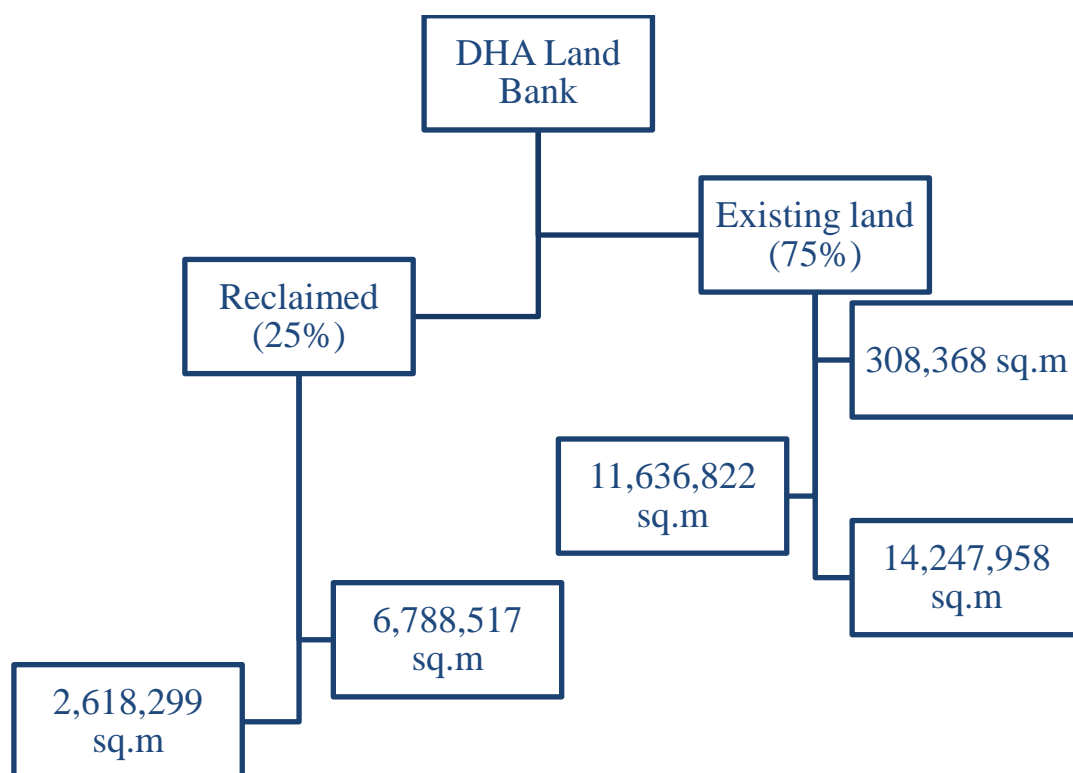
It can also be concluded at this stage that DHA is a lessee and it has two lessors- one, the Government of Pakistan and the second, Port Qasim Authority. The information reveals that DHA acquired two kinds of land. The first kind was existing land that it leased from the Government of Pakistan, and the second, was land that it reclaimed. As a result of both these processes it was able to create a land bank that had a total of 35,599,964 sq.m of land in five batches. The largest batches were in 1974 and 1975 which together make up 70 percent of the existing land in their land bank. The remaining three batches were considerably smaller, the larger two of which were reclaimed and account for 25 percent of the land bank (figure 2).

The implications of this are that land banks are normally used to control the growth of the city by the municipal governments and it is usually a facility that the municipal governments or federal governments or their institutes practice. DHA functions as an Authority established by the Government of Pakistan(1980) that is run by a board of governors who are all military officers. It falls under the MEO but it is clear that it is not a government institute and is instead a land developer as established by the Government of Pakistan (1980). For a land developer to be able to establish a large land bank means that they have been able to acquire a large amount of land at the same cost. This means that DHA did not have to face normal hurdles faced by developers to acquire land from the normal land market which make it very hard to acquire land at one consistent cost. A lot of time and effort are spent in acquiring large areas of land at a consistent cost from an open land market.

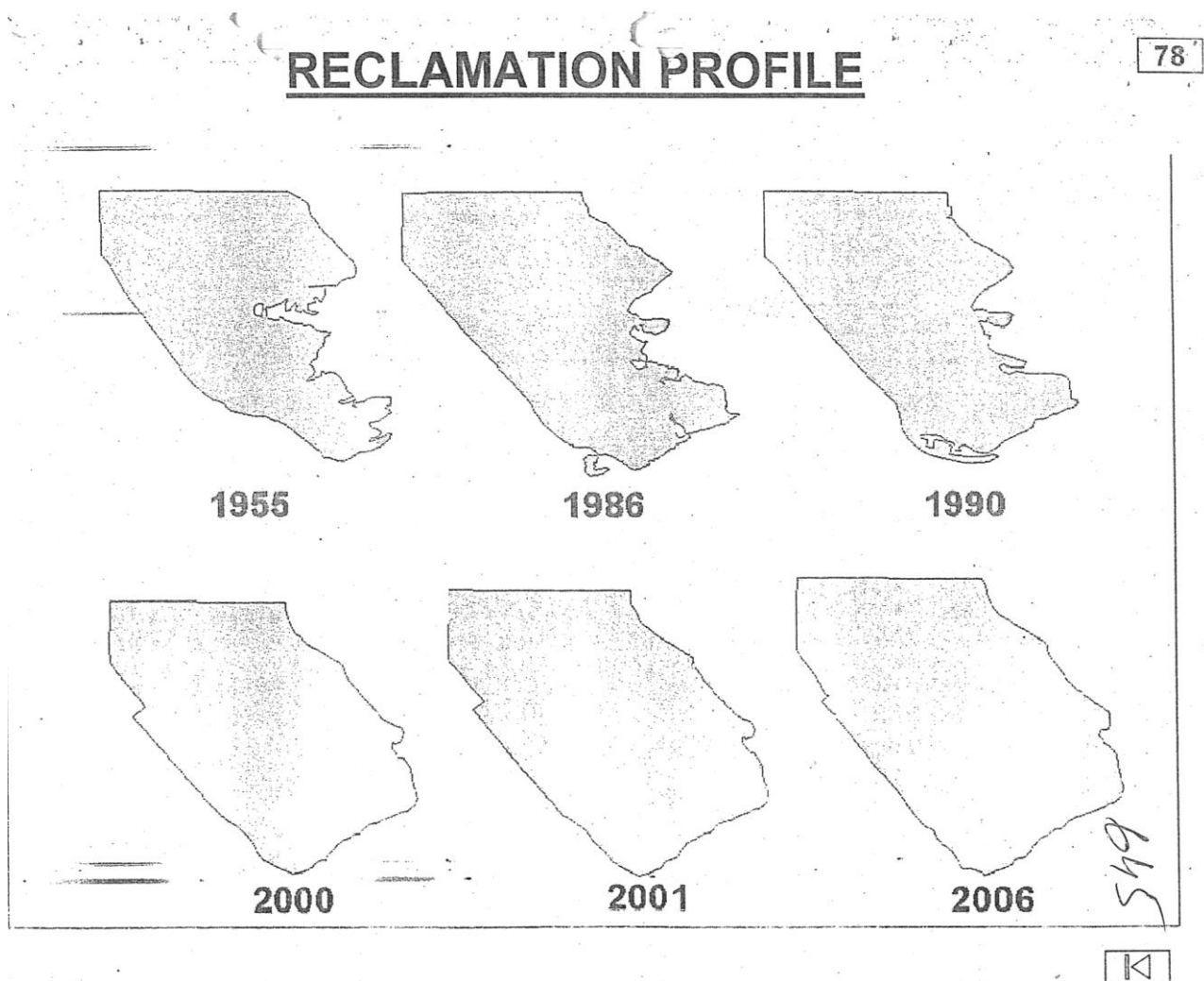
Table 6: DHA Land Acquisition Summary

Year	Area (acres)	Area (sq.m)	source
1954	76	308,368	official website
1974	2,876	11,636,822	lease contract
1975	3,521	14,247,958	lease contract
1979 -1980	1,677	6,788,517	regulation manual
Total land in 1980	8,150	32,981,665	official website
1980 - 2015	647	2,618,299	Official website, maps
Total land in 2015	8,797	35,599,964	official website

Figure 9: Kind of land

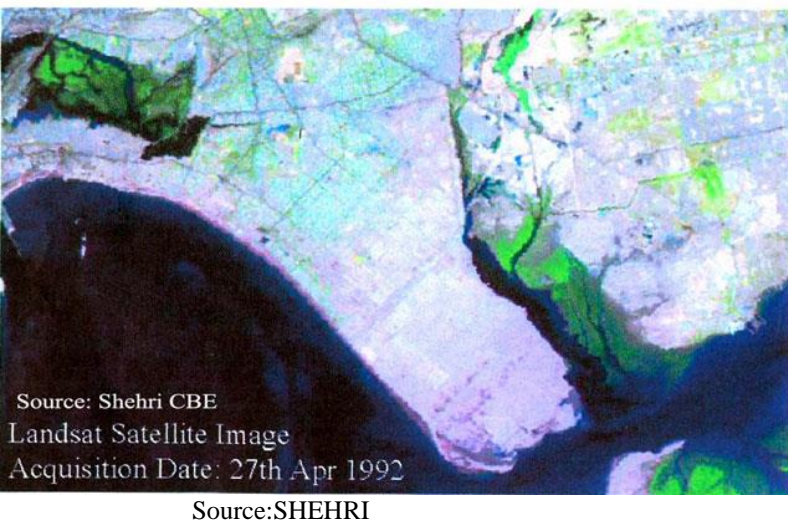
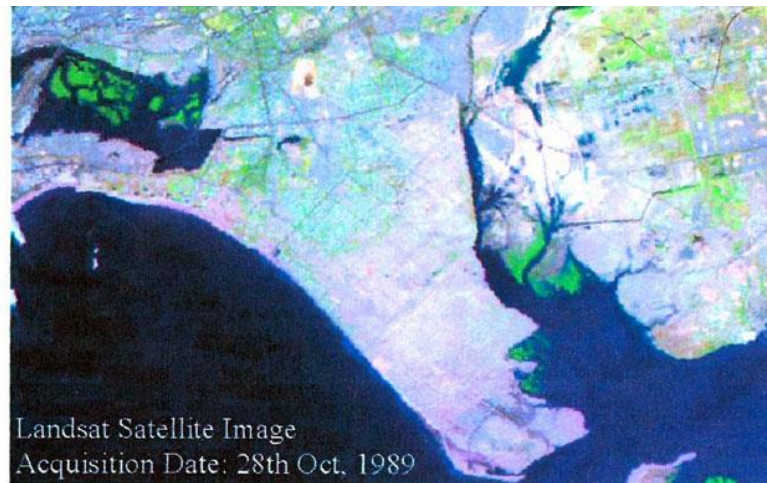


Map 3: Reclamation profile



Source: Lease document 2003

Map 4: Satellite map of reclamation profile



- **Was there any case of compensation for earlier land-use? How does the law define compensation?**

The Litigation attorney Salahuddin Ahmed explained in the interview that in his knowledge there is no record of people inhabiting the area before it was leased out to DHA. The DHA officials in their interview were also very confident that no expropriation had been carried out. Officials from the federal board of revenue which handles all land related activities were unavailable due to the land grabbing case mentioned in the limitations section. It can however be established from the information above that DHA bore no cost of compensation even if land was acquired through expropriation. If there was any compensation given it was the responsibility of the Federal government, which was the lessor and the land owner.

It is however unlikely that a coastal area near a city would be inhabited- especially a city which was historically a fishing village. It is also highly unlikely looking at the mangrove population in the area and the islands off the coast to ignore that there were people using the land who could have been there for a very long time. As a result the Pakistan Fisherfolk Forum, an NGO, was contacted to find out if there were any records regarding the use of the land prior to DHA obtaining the lease. The PFF is looking in its archives but was unable to get back until the publishing of this report.

Meanwhile the PFF website⁷ reveals the cases that they have been fighting for the protection of the fishing community. The fact that there is very little knowledge of the usage of land prior to the DHA lease does not prove that there was no prior use. The website refers to a case where the rangers- a para-military wing asked the government for lease of the lakes around the district of Badin in 1973. The rangers were leased the lake for the nutritional need of the para-military force. They then started occupying more land and pushing the fishermen out of their share of catch. The government passed a bill against their illegal occupation but the rangers were able to defy it and occupied twenty more lakes. In the 1990 they were able to get official permission for all the occupation and an agreement was signed that gave the rangers 65 percent of the catch, the government 30 percent and the fishermen were allowed 5 percent. In 2001 when PFF was established they took up the plight of the fishermen of the area and in 2004 the fishermen finally got their lakes back.

The summary of the case above shows a pattern in reality that allows a doubt to be cast on the fact that just because it was not recorded anywhere officially that people were not using the land does not mean that they weren't using it in reality and that their basic human rights had not been violated in the process.

The Land Acquisition Act of 1890⁸ is the statute that dictates the procedures of acquisition of land. This includes what is allowed and not allowed when determining compensations. The law states that the Collector determines the compensation however if there is dispute with the decision made by the Collector then it can be resolved by the judicial court. The directions for the collector to determine the compensation state the following conditions to be considered; the market value of the land for its lawful ordinary use- anything unlawful in terms of land-use will not be taken into consideration for compensation nor of any building

⁷<http://www.pff.org.pk/node/51>

⁸ <http://www.punjablaws.gov.pk/laws/12.html>

that is permitting over-crowding – the over-crowding shall not be compensated. Any damage in terms of crops or trees at the time of notice or any damage caused by the said land servicing other land will also be taken into consideration for compensation. Loss in earnings will also be taken into consideration in terms of other movable or immovable property of the affected person will also be compensated. Reasonable expenses that will be a result of the affected person changing home and business must also be included in the compensation. The Act also directs the Collector to compensate for damage due to a decrease in value of the land that may be caused between the declaration of its acquisition and the possession. The law clearly reflects influences of the indemnity principle as defined in theory. The implications of this will be discussed in chapter 5.

○ **Does the Defence Housing Authority have the power of eminent domain?**

The Defence Housing Authority has the power of Eminent domain but this power was authorised when it was converted into an authority in 1980. The Presidential order of 1980 established the Pakistan Defence Officers Housing Society to Pakistan Defence Officers Housing Authority. When it was given the status of an Authority the Government of Pakistan (1980, p. 423) gave it the power through clause “9 (2)(i) Without prejudice to the generality of the foregoing powers, the Executive Board may- acquire any land in accordance with the law for the time being in force in the Province of Sind.” The land acquisition act (Government of Pakistan, 1824) states that land can be acquired for public purpose- to address this aspect of the law the presidential Order also established through clause 12 that “all schemes projects and works undertaken by or on behalf of the Authority under this Order shall be deemed to be schemes, projects and works for public purpose.”

With the above information in consideration it then becomes important to ask did DHA acquire any land through the power of eminent domain to see if this power has been utilised. Most of the land that was acquired by DHA was before 1980 as stated in the section discussing land bank above and so it was not acquired through the power of eminent domain directly. The reason why the word ‘directly’ has been used is because the Cantonment Act 1924 allowed the federal government to declare any land a part of the cantonment. This is a similar situation to what happened in the case of DHA. DHA falls under the local Authority of the Cantonment Board Clifton.

Other than the two main lease contracts of 1974 and 1975 which account for the main land acquisition by DHA the only land that DHA has acquired that is relevant to this study⁹ between 1980 and 2015 is 2,618,299 sq.m. This land has mainly been reclaimed but there is not enough information available to establish if the power of eminent domain has been utilised. Parts of the reclaimed land as well as the original land were included in a fresh lease. The new lease was signed in 2003 for 2,431,902 of the original land that was leased in 1975. A land contestation had been taking place between the original lessor, the federal government and the Port Qasim Authority regarding the ownership of the land as the Port Qasim Authority Act 1973 claims that any land within 50 yards of the high water line falls under PQA jurisdiction.

A new lease for this land which was surveyed was signed between DHA and the Port Qasim Authority in 2003. In the new lease contract the premium and the ground rate are lower than the amount in the original lease of 1975. The last valuation table published by the government was in 2001 according to independent publishers who publish government

⁹ there is another part of land to the North of Karachi that has been acquired by DHA for the Project DHA city this project however is not part of the thesis

documents. The government officials remained unavailable because of the land grabbing case while the PQA officials directed towards the PQA land allotment policy for consultation. The valuation table of 2001 can hence be used for reference and declares the area under question above under phase 8. The value for commercial and residential property is much more than the amount decided in the lease. The PQA land allotment policy has also published rates that are much higher than the ones decided in the lease. This value will be discussed in more detail in the following section but for now it can serve to answer the question above that perhaps the power of eminent domain was used as well as just sheer power and influence in the government was used by the military to decide on a premium and ground rent rate much lower than the official value declared in legal official documents by both lessors.

○ **How is public purpose defined in the law? How is it interpreted?**

Advocate Salahuddin Ahmed was interviewed to reflect on legal issues pertaining to this research. He is also the claimant attorney for an on-going litigation between DHA and a DHA resident. The litigation is over a parcel of land that was acquired as amenity land and then used as a residential luxury complex. The legality of the land-use change is under trial and the idea of public purpose is one of the arguments. It was hence both a reliable and a valid source to help answer the question above.

In the Pakistani legal system there is no official definition of ‘public purpose’ in any statute. Its use in different statutes is ultimately interpreted by the judiciary. Hence whenever a question or dispute arises over the precise meaning of a word that has otherwise not been specifically defined, it is resolved by the judges through their judgement. He explained further with reference to the ongoing litigation and the DHA clause 12 which declares all actions by DHA as public purpose. He explained that the judiciary can interpret clause 12 in two ways. It could either decide that the project is not public purpose at all and the authority is not allowed to continue with it at all or they could decide that it is a non-public purpose which will mean that all the immunities and considerations that are given to public purpose schemes will be taken away but they can continue to carry on the commercial activity. It is generally understood that along with immunities there are certain obligations that are incurred with public purpose. It cannot be arbitrary, unfair or unreasonable.

The explanation of public purpose puts forth the idea that where do you limit the arbitrary, unfair and unreasonable? What defines the normal from which one takes reference? Where does one draw the line that welfare for one does not become an abuse of a right for another? The last question takes one back to the land acquisition law and the compensation considerations it discusses. They appear with a new meaning as one goes around in a full circle of discourse.

○ **What was the cost of land? How was it determined?**

The lease contract document of 1975 gives an insight in to the rights and obligations that were accorded to DHA (table 7). It accounts for 14,247,958 sq.m of the 35,599,964 sq.m that is under their control. This land forms phase 8 along with more reclaimed land. Out of the 14,247,958 sq.m 6,411,547 sq.m were for residential plots and 1,424,806 sq.m were for commercial plots. Both were acquired at a cost of US\$ 0.19 per sq.m and aggregated to a total sum of US\$ 1,513,366. The annual rent was set up at US\$ 0.02 per sq.m per annum .The remaining 6,411,588 sq.m “(1584.35 acres) meant for roads, parks, schools, hospitals, mosques playgrounds and other amenity plots etc which are exempt from payment vide Ministry of Defence letter No. 18/18/L/AD(A)/ML&C/67/3228/D5/75.” the letter also exempts any annual lease rent for the amenity and road land.” The land valuation table for 1975 was unavailable in the records archive of the publisher. Officials of the land revenue

department of the federal revenue board were unavailable for any meetings to explain how the value was determined. The DHA advisor of special projects claims that DHA has always acquired land at the real value of the land- that the value of land was actually close to a nominal price because it was undeveloped land. The development carried out by DHA is what has caused value of land to increase since then. The city government officials and researchers and activist of the city counter this claim that DHA get very nominal prices of land. One of these was a retired city planner who was only available for a telephonic interview in the research period, he explained that a few years ago the Sind government planned a housing scheme for the middle class and were purchasing land which was around the same time that DHA was purchasing land for DHA city- the price of land per sq.m for the two developers varied by quite a margin. However at this moment due to a lack of official records it becomes a matter of one against the other.

Table 7: Lease Contract 1975, Land-use and cost

Lease contract 1975 (inflation adjusted for 2014)				
Type of land use	Residential	Commercial	Amenities/ Roads	Total
Area (sq.m)	6,411,555	1,424,808	6,411,595	14,247,958
US\$/sq.m (premium)	0.19	0.19	0	
Total cost (US\$)	1,513,366		0	1,513,366

Reclaimed land in 1979 (inflation adjusted for 2014)			
Area reclaimed (sq.m)	total cost (US\$)	US\$ per sq.m	source
6,786,819	2,380,405	0.35	regulation manual

If we look at the lease of 2002 between DHA and the Government of Pakistan (table 8). DHA leased 505,853 sq.m of land, out of this land 46,417 sq.m was charged at US\$ 0.05 per sq.m for premium and US\$ 0.01 per sq.m for annual ground rent. The valuation table of 2001 sets the official value of this land at US\$ 32.7 per square meter for open residential plots and US\$ 52.37 per square meter for commercial open plots. The remaining 459,436 sq.m was declared amenity land and leased for free.

Table 8: Lease contract 2002, Land-use and cost

Lease contract 2002 (inflation adjusted for 2014)				
Type of land use	Residential	Commercial	Amenities/ Roads	Total
Area (sq.m)	46,417		459,436	505,853
US\$/sq.m (premium)	0.05		0	
Total cost (premium)	US\$ 2,321		0	US\$ 2,321
US\$/sq.m (ground rent)	0.01		0	
Total cost (ground rent) per annum	US\$ 464.2		0	US\$ 464.2

Also If we look at the fresh lease that DHA entered with PQA in 2003 (table 9), over 7,339,250 sq.m of land, out of which only 2,431,902sq.m was charged. The value per square meter was set at US\$ 0.07 and the ground rent at US\$ 0.01 per sq.m per annum. The lease did not even indicate the land-use like the previous leases. If one studies the PQA land leasing policy document, it is observed that the document discusses three major charges upon which leasing is based- the peripheral development charges, the annual ground rent and the annual maintenance charges. There are 4 land use categories; Industrial land; CFS/Warehousing plots; commercial area; edible oil /molasses/backup area and for each land uses the charges vary (table 10). Table 10 also highlights the fact that the official maximum lease period is only 50 years. This raises the question how DHA could get a lease for 99 years in its agreement with PQA in 2003?

Table 9: Lease contract 2003, Land-use and cost

Lease contract 2003 (inflation adjusted for 2014)			
Type of land use	leased with charge	leased without charge	Total
Area (sq.m)	2,431,902	4,907,348	7,339,250
US\$/sq.m (premium)	0.07	0	
Total cost (premium) US\$	170,233	0	170,233
US\$/sq.m (ground rent)	0.01	0	
Total cost (ground rent) per annum US\$	24,319	0	24,319

Table 10: PQA land leasing policy, Land charges

PQA land leasing policy (inflation adjusted for 2014)				
Type of land use	Period of lease	Peripheral Development Charge (US\$/sq.m)	Annual Ground rent (US\$/sq.m)	Annual Maintenance charge (US\$/sq.m)
Industrial land	50	33-44	0.19	0.24
CFS/ Warehousing plots	50	44	0.19	0.39
Commercial area	50	77	0.40	0.43
Edible oil/ Molasses/ backup area	30	110	0.25	0.56
Water/ Sea front			0.44	

This indicates that some subsidy is being given to DHA but it needs to be further investigated for a valid conclusion. It does cast some doubt on DHA's claim that they get all land at a non-subsidised price.

Preliminary conclusions of sub-question 1:

It can be concluded at this stage that DHA acquired two kinds of land. The first kind, was existing land that it leased from the federal government, and the second, was land that it reclaimed. As a result of both these processes it was able to create a land bank that had a total of 35,599,964 sq.m of land in five batches. The largest batches were in 1974 and 1975 which together make up 70 percent of the existing land in their land bank. The remaining three batches were considerably smaller, the larger two of which were reclaimed and account for 25 percent of the land bank (figure 2). The reclaimed land was eventually leased as there was a dispute over the lessor-ship of the reclaimed land as well as some of the existing land that was leased in 1975. The acquisition costs were much below the market price. This can be deduced due to the following reasons-

- For the costs that were accessible- one can see that there is a decline in the lease premium and ground rent from 1975 to 2003. The premium was US\$ 0.19 per sq.m in 1975 and it became US\$ 0.07 per sq.m in 2003). The ground rent was US\$ 0.02 per sq.m in 1975 and US\$ 0.01 per sq.m in 2003. On what basis is the new value decided, it is still to be known but it doesn't reflect the official value of the Government of Pakistan land which according to the valuation table was US\$ 32.7 per sq.m for residential land and US\$ 52.37 per sq.m for commercial land. The PQA land allotment policy highlights three charges for leasing purposes in which there is no land premium but there is ground rent at US\$ 0.4 per sq.m. To make it clear one can do calculations for the monetary value PQA would receive over the leased land based on the existing agreement compared with the monetary value it would receive had the lease agreement abided by the official land allotment policy of PQA.
 - According to the 2003 lease agreement PQA would collect:
 - No Peripheral Development charge
 - No annual maintenance charge
 - Premium : $2,427,600 \text{ sq.m} \times \text{US\$ } 0.07 \text{ per sq.m} = \text{US\$ } 169,932$
 - Ground rent: $2,427,600 \times \text{US\$ } 0.01 \text{ per sq.m} \times 99 = \text{US\$ } 2,403,324$
 - Total: $\text{US\$ } 169,932 + \text{US\$ } 2,403,324 = \text{US\$ } 2,573,256$
 - According to the PQA allotment policy leasing charges are:
 - PDC: $2,427,600 \text{ sq.m} \times 77 = \text{US\$ } 186,925,200$
 - Annual Maintenance charge: $2,427,600 \text{ sq.m} \times 0.43 \times 48 = \text{US\$ } 50,105,664$
 - Ground rent: $2,427,600 \text{ sq.m} \times 0.4 \times 50 = \text{US\$ } 48,552,000$
 - Total: $\text{US\$ } 186,925,200 + \text{US\$ } 50,105,664 + \text{US\$ } 48,552,000 = \text{US\$ } 285,582,864$

- However since the PQA contested land over which the new 2003 was drafted is mostly reclaimed land, the cost of reclamation was covered by DHA in 1979 and it was US\$ 2,380,435. Even if this along with the peripheral development and maintenance charges are removed from the allotment process for reasons of ‘fairness’ as DHA says it is solely responsible for the high value that has attached itself to the land (the researcher is assuming possible reasons for the lease agreement being different from the pattern of leasing set by the PQA officially) one can still observe a subsidy in the over all ground rent that could have been collected at the end of 50 years and that will be collected at the end of 99 years.
- The other reason to conclude that it was not perhaps market cost was that if one looks at the premium cost in 1975 which was US\$ 0.19 per sq.m , this land could not be in the open market because it was next to the land that had been acquired the year before (batch 2 in 1974). The price of any parcel of land increases if it’s surrounding land has been given a land-use because it allows it to have a potential future value. The potential future value gets reflected in the cost and a land with a potential for housing and commercial activity is very unlikely to be as low as it was. Given the fact that it was the third batch of land the increase could only be US\$ 0.18 per sq.m at the very maximum. That is hardly an increase from 1956 to 1975. However, one can also wonder looking at the pattern of the decreasing ground rent and premium that perhaps it was more before and decreased to this value.
- Another reason could be that perhaps US\$ 0.19 was the official land value at the time and the land valuation had not been updated or the land market did not have information of this transaction for housing and commercial, in which case DHA officials’ claim that they received no subsidies was true but only partially because they did somehow get the advantage of not revealing the information. If not an economic or monetary subsidy they received a ‘privacy subsidy’ from the government. Which enabled them to hide information regarding the use of land and so the market price never got updated in the immediately following year from 1974 to 1975.

The implications of this are that even though it is in five batches. The amount of land in each batch counts as quite a large amount of land. This means that not only a large amount of land per batch has been acquired but with every batch the cost was lowered. This results in DHA not just benefitting from a consistent price of land per batch of land but a lowering consistent price with its batches throughout all its acquisition transactions. This allows a greater profit margin. Also more than half the land in each batch has been given free of charge under the guise of amenity land. So the value of land per sq.m becomes lower if we consider this fact. The full implications will be discussed later when the use of the land is determined through sub question 3.

Another deduction that can be made from this information regarding land banks is that the fact that they are allowed to create a land bank shows that at some level there is some power distribution. Whether it is rooted in equity is something that will be answered in chapter 5 after all the information has been reviewed.

The next aspect that this section highlights the amount of land that was acquired it is not possible that it could not have some previous activity. The fact that it was leased from the federal government and was lying in their land bank doesn't mean that it had no activity taking place on it especially if it's a coastal region which is surrounded by fishing activity. There is no record of that activity being compensated. There is no acknowledgement that such an activity could exist and if it did it isn't the state's responsibility. It reflects a mind-set that is similar to reserved rights but not completely- to think that even if there was someone using it, it was insignificant and no efforts of compensation through monetary terms or policy was made.

Looking at the legal side of it, land acquisition laws define the terms under which acquisition can take place and public purpose is one of the salient aspects. It is not very defined in the law and it is up to the judiciary to interpret it. It hence becomes very important if the judiciary is strong enough to define it in terms of how it is meant to be defined keeping equity in mind or if the state is able to influence them. One can also wonder what part of the state is stronger.

The lease document also revealed that DHA falls under the jurisdiction of the military cantonments that have been given the power of eminent domain. So even though it is officially leased it seems that the land in question could also have unofficially been acquired through the power of eminent domain with the reserved rights understanding even though it is not according to the law.

It seems right now that there is a mixture of both eminent domain and the normal transaction taking place. The reason for this conclusion is that the transaction is done through a proper lease agreement with no reference to eminent domain. However what reveals the possibility of an underlying eminent domain situation is the cost at which the land is being leased – that is the premium and the ground rent.

Table 11: Summary of land bank and cost of land

Year	Area (acres)	Total Area (sq.m)	Area leased without any cost (sq.m)	Cost (US\$/sq.m)	source
1954	76	308,368	Not known	Not known	official website
1974	2,876	11,636,822	Not known		
1975	3,521	14,247,958	6,411,588	0.19	lease contract
1979	1,677	6,788,517	6,788,517	0.35	regulation manual
2003	1813.58	7,339,250	4,907,348	0.07	Lease contract 2003
Total in 2015	8,797	35,599,964	18,107,453		official website

- The implications of this are that land banks are normally used to control the growth of the city by the municipal governments and it is usually a facility that the municipal governments or federal governments or their institutes practice. DHA functions as an Authority established by the Government of Pakistan(1980) that is run by a board of governors who are all military officers. It falls under the MEO but it is clear that it is not a government institute and is instead a land developer as established by the Government of Pakistan (1980). For a land developer to be able to establish a large land bank means that they have been able to one, acquire a large amount of land at the same cost at once and don't have to worry about acquiring more land at the cost that is a result of expectations that their development has created. And two, they don't have to build immediately and wait to allow development when they feel it is necessary.

4.3.2 To what extent is the land value influenced through the process of land regulations?

To answer this sub question the area of study has been limited to DHA Phase VIII Karachi. One of the reasons for this decision is that DHA phase VIII currently represents all the different stages of Real Estate discussed in the theoretical chapter. Due to the land issue being very sensitive at the time of research, contract leases for other developing authorities could not be accessed. This leaves this section applicable to be compared with theory and conceptual trends rather than with other ground trends at this point in time.

- **What kind of different land use conversions have been carried out through planning? Was there a master plan? What is the area of each land use?**

According to the contract lease document 1975 and 2002 there were four categories of land use that were defined through planning; residential, commercial, amenities and roads. The amenities that have been especially mentioned in the document are parks, schools hospitals, mosques, play-grounds and graveyards. The lease was finalised based on a master plan that reflected these obligations (map 5). One of the main aims of the authority was to provide welfare through land and it seems that tools to increase the land value through development were used by presenting a master plan that showed a well-balanced and well-planned scheme. The expectations were raised through planning. This was through the first master plan in 1975.

However the master plan was revised to perhaps further raise future expectations and take advantage of a higher and better land use than originally planned. The changes were made without any formal approval from the lessor and the actual reality of land use is different from how it was planned in 1975. From the information available it can be deduced that this was perhaps possible due to the lease contract of 2003. This was a fresh lease contract for some area of land that was originally leased in 1975. It declares no reference to a master plan attached for the land-use planning approved unlike the previous lease contract. This is the first difference between the two leases that allows freedom to change land use as a master plan is not referred to. It allows somewhat the freedom for a new master plan because it doesn't bind the approval of the lease to the master plan approval.

Secondly, there is no clause regarding a distinction between residential, commercial and amenity land. All land was purchased at the same price without any distinction in its land use stated. Hence an ambiguity is created as the obligations and rights are not clearly defined as far as land-use is concerned. There is no obligation regarding the use of land in the lease. The master plan of 1975 which is referenced in lease of 2002 that was drafted specifically for 505,854 sq.m of land that was reclaimed (and was only valid for a year before it was replaced again) shows the distribution of amenities specifically in sector B of Phase VIII where there are two schools, a university, a hospital, a graveyard and a sewerage treatment plant (map 6). The lease of 2003 shows a similar master plan (map 7) until the master plan of 2007 (map 8) shows a completely different land use in the same area and the Google Earth satellite image (map 9) shows a luxury apartment complex instead of the graveyard, a cinema and shopping mall instead of the school, a private sports complex and another apartment complex instead of the university.

The 2003 lease contract came about as a result of an on-going dispute between the federal government (the original lessor) and PQA over the ownership of land. PQA had been established under the PQA Act 1973 which gave it ownership of all shore within 50 yards of the high water mark. The contract confirms that the total area that falls under PQA jurisdiction is 7,339,250 sq.m and that it is being leased to DHA but the lease title states that it is only for 2,431,902 sq.m and only this land is charged a premium and ground rent (table 10). The reason for exempting all the other land is not clearly explained unlike the earlier lease.

The DHA Today website¹⁰ shows the master plan as prepared by the CITI associates , a real estate firm. The DHA officials declined to provide their official map, they said all estate agents produce them and those maps can be used.

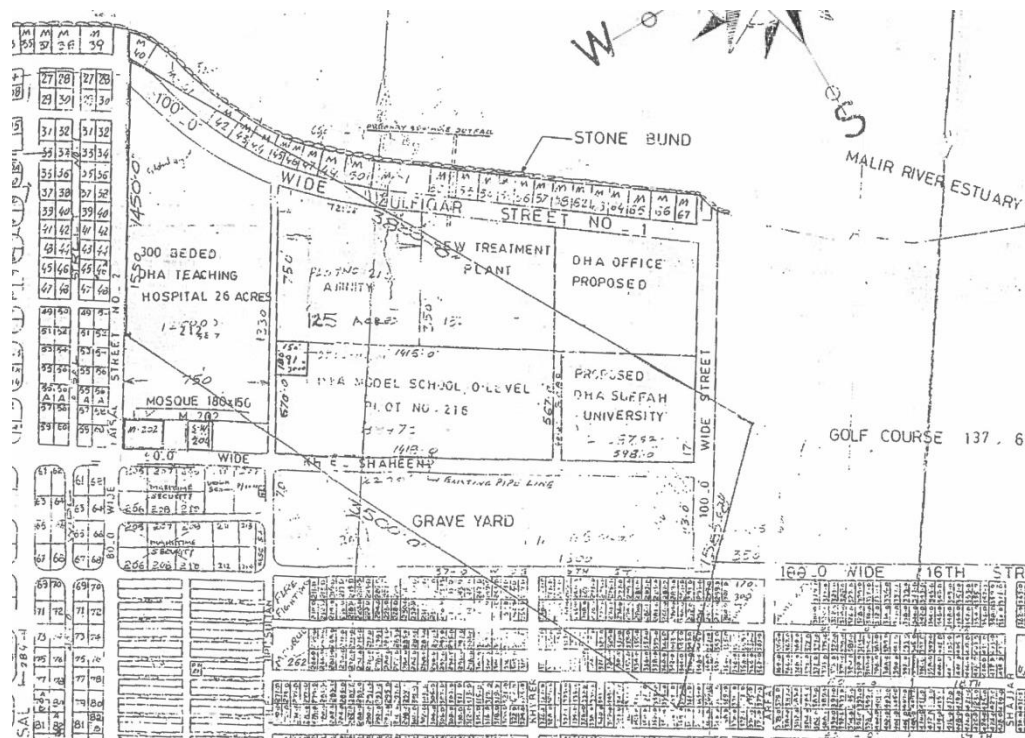
According to DHA Today website the parcel sizes that are available in DHA are:

- Commercial: 84sq.m, 167sq.m mostly except for the commercial business district which has been planned to accommodate; 278 sq.m, 557 sq.m , 836 sq.m, 1254 sq.m, 2090 sq.m.
- Residential : 84 sq.m, 100 sq.m, 125 sq.m – allotted to DHA employees; 418 sq.m, 502 sq.m, 552 sq.m, 836 sq.m, 1672 sq.m, - allotted to military officers.

The fact that raises their value is the amount of amenities planned around these land-uses. If one looks at the master plan. This considered the amenity effect increases the land value.

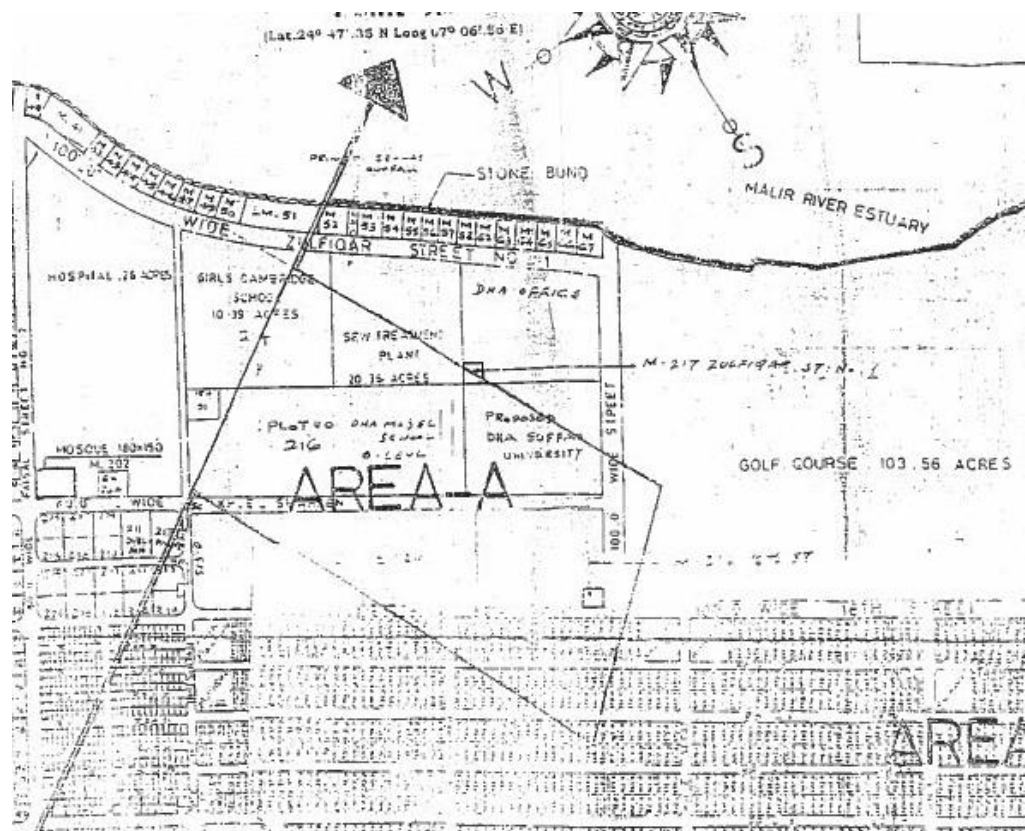
¹⁰ <http://dhatoday.com/dha-karachi-phase-viii-phase-8-latest-plot-prices-september-2013/>

Map 5: DHA Map section 2002



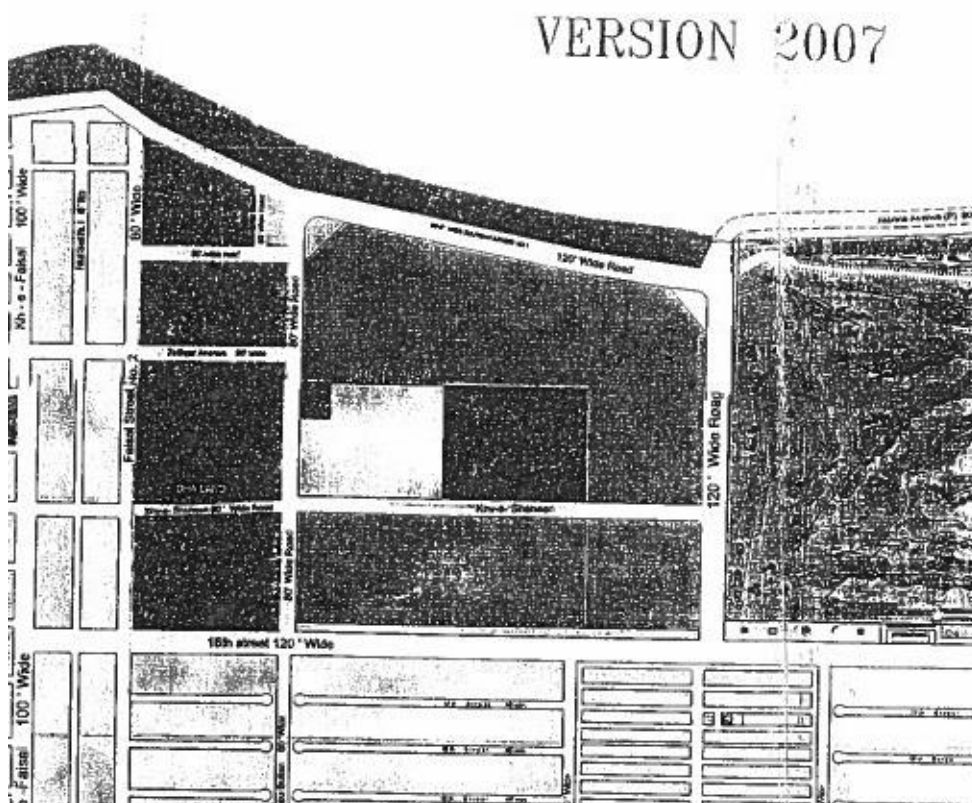
Source: lease document 2002

Map 6: DHA Map section 2003



Source: lease document 2003

Map 7: DHA Map section 2007



Source: lease document 2003 (court case)

Map 8: DHA Map 2015



Source: Google Earth

- **What is the relationship between DHA and the city as far as planning is concerned? What is the status of DHA?**

This question is necessary to establish the relationship between the two as DHA exists within the physical domain of Karachi. It does not however fall under the metropolitan government's (KMC) administrative jurisdiction. Instead it falls under Cantonment Board Clifton which is headed by the Military Estate Officer, Karachi. This has been confirmed by both DHA and KMC officials. The Military Estate officer handles all the military land under its jurisdiction. DHA land falls directly under the federal government as it has been leased directly.

However there are some obligations that have been imposed on DHA by the federal government through the lease. The lease of 1975, clause 8 states "The execution of the scheme will be carried out by the LESSEES in close cooperation with all persons and societies having like rights..." This can be considered an obligation that urges the DHA to coordinate its plans with the KMC but then can this clause offer some kind of consideration to be given to the KSDP? Karachi Strategic Development Plan has been prepared for Karachi and its growth but it has no statutory power over the cantonment areas. It does to an extent because KSDP jurisdiction borders DHA and it has the legal standing within its jurisdiction.

DHA has been established by the presidential order of the Government of Pakistan (1980) as an authority with the rights to establish its own bye-laws and rules and regulations to help it achieve its function which is to provide welfare to the military officers. It falls under the Cantonment areas but is allowed its own independent set of bye-laws that are separate from the cantonment board.

DHA raises funds for itself through the following fees according to its regulation manual(1980) These fall under the development and building bye-laws and are summarised below.

- Registration fee for membership: Through this fee it keeps a count on not only the number of members it has but also which category the members fall in. There are seven categories , defined as:
 - Category A- This is for the serving or retired officers of the military. It is also extended to armed officers who served before partition and chose Pakistan at the time of partition.
 - Category B- This is for individuals or companies, foreign or local who want to buy land
 - Category C- This is for people who inherit or acquire land as a gift.
 - Category D – This is for DHA employees who are allotted plots as staff members. It is also for owners of leased property in the two informal settlements that fall within DHA jurisdiction ; Neelum colony and Qayyumabad. These colonies don't fall in the vicinity of Phase VIII
 - Category E – this is for allottees of property in neelum colony and Qayyumabad.
 - Category F – This is for small flats and shop owners.

- Category S – this is for the wives of martyred officers
- Transfer fee, mutation of property, mutation of property (urgent processing), membership renewal, Lease A (construction permission, Demarcation fee , Site plan fee, Building Plan fee, Building plan (priority case), Building plan (express case), Completion plan, Completion plan (priority case), Completion plan (express case), Lease C, Division fee, amalgamation fee.

○ **Were there any exactions imposed on DHA as a developer?**

Internal land dedications: the lease of 1975 which represents one of the major acquisitions of land by DHA includes a clause which gives them land for free for amenities but also clearly specifies that it cannot be used for anything else. Although they haven't been made to pay they can be held accountable through clause 3 to develop the amenities on the land.

External land dedications: DHA falls under the cantonment board and the federal government. Under the cantonment board building bye-laws (2007) there is no such imposition on developers as external land dedications. The contract lease of 1975 also doesn't highlight any such imposition. The lease contract is taken into consideration as it formed a direct leasing contract between the president of Pakistan and DHA which was Defence officers housing society at that time but upon its status change to an authority all the assets were transferred.

Linkage fee: There is no statute that obligates DHA to provide for its employees. But they have allotted their civilian employees parcels of land. In Sector B of Phase 8 the allotted area for civilian employees of DHA is 162,306 sq.m (google earth and CITI associates map of DHA) with 83.6sq.m, 100.3 sq.m and 125sq.m parcel sizes available and total 476 parcels available.

Tap Fees: The concept of tap fee is currently in effect out of the act of kindness. There is none that is imposed by the Federal government which is the actual lessor. The improvement of roads of the city that connect and are used by the different land owners (look at this later)

Development charges: The federal government or the PQA or KPT have not established any development charges on the development taking place in DHA.

○ **Has DHA imposed any exactions as an authority?**

The following exaction is imposed by DHA on all its members, military or non-military.

- Development charges: Although development charges are charged once, DHA has been charging it more than once. This is especially the case with Phase 8. The interview of an allottee (B) of phase 8 and allottee (A) phase 6, who are retired army officers, explained that that in the process of almost 25 years that they held the plot they had to pay development charges thrice. They explained that DHA explained the logic behind it as being that because the value of the land has increased they deserve a cut of the risen price not only because they have developed the land but also because the costs of development have also increased. In the next section the breakdown will be discussed in more detail.

The development charge was incurred upon acquiring the allotment letter. Then ten years later on acquiring the site plan of the parcel of land and then again in another ten years' time. This has been summarised in the last section (table 14).

- Non-utilisation fee: this is along the same concept as a vacant land tax but since nothing like that exists as a tax in the country and because DHA has the power to regulate its own land it has

Preliminary Conclusions:

- The lease was based on the approval of the master plan. The change in lease that one witnesses is an important factor in highlighting that the master plan even though it served a highest and best use at the time was not designed for a freedom to change land use. It imposed some obligations in the form of fixed areas of land-use.
- Their reason to not share their official maps is unclear but it seems that if they share it they can be held accountable like they already are for changing the land-use without any authority or approval of the lessor. The freedom to drift away from the official approved master plan seems loosely like a strategy similar to what the Dutch have been using where they drift away from the statutory plan. The main difference perhaps is that over the years the Dutch have realised the importance of equity and public purpose and how it is a major driving factor behind negotiations. The military is not making changes in the master plan for reasons of public purpose or equity, no one except those from a specific class are benefitting from the projects. The changes are going against public purpose laws of the country.
- The information in the section above also highlights how the ambiguity in consecutive lease contracts has reduced the obligations on DHA on how to use the land. This has allowed it to manoeuvre through the loopholes created by the ambiguities and often change the land-use according to the highest and best use of the time period that it can serve. For example at one time individual plots for residential and commercial use were considered highest and best use and then as times changed the plots were used for high rise luxury apartments. Increasing the density to increase the welfare.
- It also shows that perhaps DHA is also using the strategy of preparing land and then making partnership deals with other developers to make the required profit. That is only possible if the land-use master plan is 'flexible'. Changing it without a legal statute will be risky. Perhaps that is the reason the obligations have been obscured in the contract- to give more leeway.
- The fact that raises the land value is the amount of amenities planned around the residential and commercial land-uses. If one looks at the master plan all the master plans that are mentioned above most of the land-uses remain the same except some pockets. These changes in pockets provide extra profit as well as raise the value of land that is around them as they serve commercial recreational purposes rather than amenity recreational purposes.
- The municipal Master plan and strategic development plan have no authority over the cantonment area which overlooks DHA. This allows DHA to be free of restrictions imposed by the city. This is another avenue that could've put obligations on the land-

use as it would have to oblige to the overall planning of the city and in the process the ‘highest and best use could have been restricted for other uses for example the coastal eco systems like the mangroves nurseries that fall within the DHA jurisdiction and are reclaimed and used for commercial recreational purposes.

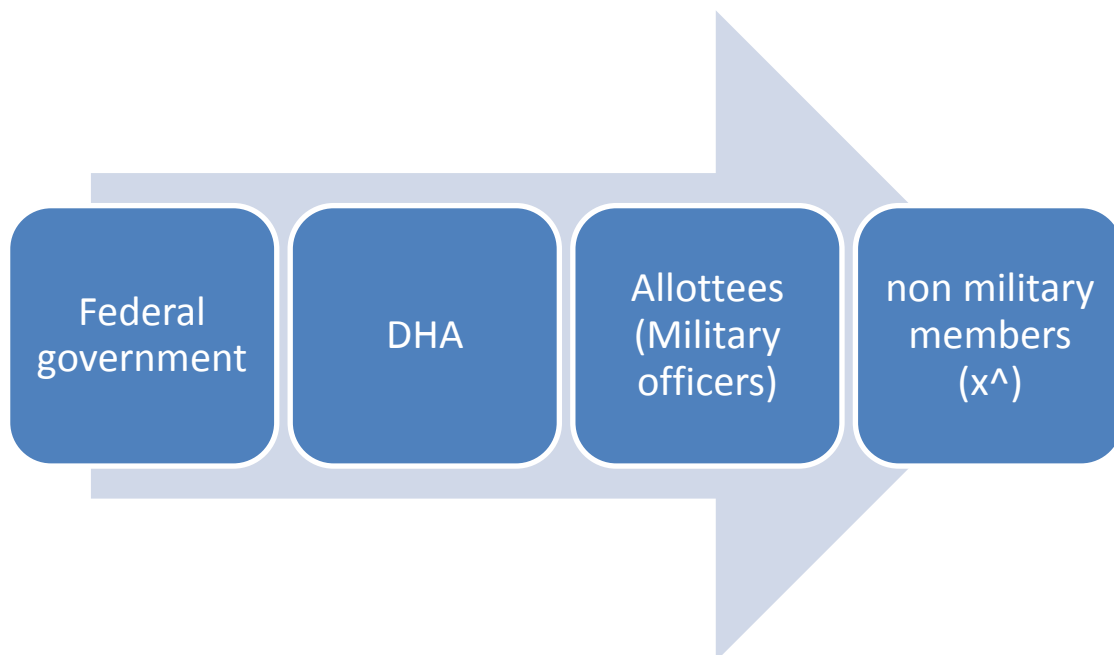
4.3.3 To what extent is the land value captured through the process of leasing?

The initial idea that DHA had freehold control over the land that it acquired was incorrect. Although they have immense power to create regulations over the land that falls in their domain they are still officially the Lessee. The allottees or the individual land owners are eventually the sub-lessees when they build a house on the land.

This section is hence looking at two main stages and then intermediary stages with in them. The first stage discusses the obligations established by the Government of Pakistan as the lessor. Was the Government of Pakistan planning for the future by looking at the potential of the land as it outlined the agreement with DHA? Or was DHA able to negotiate a deal which minimised the obligations incurred for leasing rights to develop etc.

The second stage looks at the relationship defined through the lease agreement between the lessor and the lessee and the DHA framework regarding the sub lessee.

Some of the information discussed below has already been discussed as data but it is being analysed again under the light of the question above.



Stage 1

○ Initial Lease

The first stage involves when the land was leased to DHA through the lease 1975. The lease has several clauses that defined obligations as well as rights that DHA can practice. The lease contract leased amenity and road land for free and this was a total of 6,411,595 sq.m out of a total of 14,247,958 sq.m. This accounts for about 45 percent of the land. The rest of the land

was leased at US\$ 0.19 per sq.m. It was the same charge for both residential and commercial. While the ground rent was set for US\$ 0.02 per sq.m. The Federal government captured the value of land in one go but at a very low premium. The lease however did not establish that the ground rent was subject to update according to the value of land as it increased. The lease is for 99 years and it became effective from 1975 ending in 2074.

○ **Lease Modification**

A new lease for some of the land was re-established in 2002 and then again in 2003. These leases indicated a lower ground rent (US\$0.01 per sq.m) than in 1975- (US\$ 0.02 per sq.m). The 2003 lease indicated a new lessor, the PQA. It indicates a decrease in premium charge – the new one in the lease is US\$ 0.07. It does not indicate the division of land-use as the earlier lease. This 2003 lease contract is for 2,431,902 sq.m of land from the original 14,247,958 land. The interesting thing is that the lease mentions the total land of DHA that falls under PQA territory. The lease has a clause that specifies that the Lessee has to acknowledge that a total of 7,339,250 of the original land as PQA property. Out of this only 2,431,902 sq.m was charged in the new lease and cost US\$ 170,233. There is no specification or obligation on its land-use. This calculates to about 67 percent of land being leased for free, including no specified land-use obligations on the use of the 33 percent of land that was charged. The modifications hence reflect ‘major revisions’. The stamp duty charged for the lease agreement was US\$ 14,979. One can’t help think that there are obligations being lessened in the process of this lease modification.

○ **Lease Renewal**

All the leases state that they are renewable leases. There is still a lot of time for the lease to expire but as a renewable lease the danger of it not being renewed and the lessee re-applying for it does not exist. Renewable lease usually means that it will be renewed without too many changes.

○ **Ground Rent**

The ground rent collection is according to the rate that has also reduced from one lease to the other (US\$ 0.02 to US\$ 0.01). The ground rent is collected directly by the MEO on behalf of the government of Pakistan. It is hence very clear that the ground rent does not go to DHA but is either kept by the MEO or goes to the government of Pakistan. It has however been reduced highlighting again a favourable situation being created for the military.

Stage 2

This is when DHA decides to sub-lease the land. The initial land allotment to the military officers takes place through balloting as explained by two retired officers, one who was allotted land in Phase 6 of DHA and the other who was allotted land in phase 8. The DHA officials confirmed this claim of allotment through balloting. The premium charged for the allotment goes to the DHA while the ground rent is paid to the Military Estate officer on behalf of the Government of Pakistan (Defence Housing Authority, Executive Board, 1980). The premium charged by DHA to an allottee (A) in 1976 was US\$ 0.76 per sq.m. This was a parcel of land in phase 6. Another allottee (B) who was allotted a parcel of land in phase 8 in 1979 was charged a premium of US\$ 3.19 per sq.m. One can see a considerable rise in the premium charge. It is important to highlight that these parcels of land were only on paper releasing the rights through an allotment letter. No site plan of the parcel of land was issued. It was issued ten years later according to allottee B.

Preliminary conclusions

It is quite clear that leasing is not being used effectively as a land value capture mechanism by the Lessors whether PQA or the Government of Pakistan. This non-effectiveness use is not so much

4.3.4 To what extent does this value of land benefit the military members?

Respondent A is a retired military officer who received welfare through a parcel of land in DHA Phase 6, Karachi. Although not from the sample area Respondent A was the first person to be interviewed regarding the allotment process and hence provided the basic information regarding the framework of the process. To be allotted a parcel of land one must be an armed forces officer. This means the army, the navy and the air force. It does not matter whether you are at the bottom of the officer rank or at the top if you are an officer you can apply for an allotment of land. The size can be any out of the parcel sizes available through the master plan. As long as you can afford it you can apply for it. The plot gets assigned through a balloting process. Since Most of DHA land is reclaimed land some of the parcels were only on paper and under water at the time of allotment. If you get assigned a plot you have to pay the value of the land, the membership fee of DHA and a development charge. Respondent A confirmed that the allotment process is the same for all officers applying for DHA no matter what area they apply for.

The following tables and text narrate the findings and analysis of the three military officers who were allotted land in phase 8. What can be observed is that all of them went through a similar set of obligations in the form of membership fees, development charges and the price of the parcel of land.

As a result they establish the process of obligations and benefits that the military officers' are exposed to.

Table 13: Individual welfare, Respondent B

Welfare Allottee Respondent B: 836 sq.m of parcel size (inflation adjusted)							
		1975	1979	1986	1990-95	2002	
Expenditures (costs)							
Acquisition			2,666				
Development charges			9,521	5,820	5,960		
Membership fee			4,760				
Transfer fee							
Sub Total (C)			16,947	5,820	5,964		28,731
Income (Revenue)							
Land sale						85,555	
Sub Total (R)						85,555	85,555
Balance (Subtotal R – Subtotal C)							56,824

Respondent B applied for an 836 sq.m parcel of land. He revealed that he had paid the development charges in lump-sums due to his absence in the city. The lump-sum of development charges in three sets were paid along with the price of the plot and the membership fee. The price of land is not the same as acquired by DHA from its Lessor. It is higher and one can attribute this to the planning and assigning of a land-use to the parcel of land. The development charges and membership fee can be classified in the exactions section although one can see in the case of the development charges that they are spaced out to a yearly payment almost like a tax. This is clearer from the information received from Respondents C and D. Respondent B sold their plot in 2002. This was before the time that construction was allowed anywhere on phase 8 so one can see that the real high price that one would expect and the one reflected in the land value map (map 2) is still to follow and the respondent was unable to benefit from it at the time of its sale. It was unknown when construction would be allowed on the plot. It was sold for monetary needs that were necessary at the time. If one looks at table 17 which tabulates the share or the value that DHA is able to capture from this one allotment one can see that when the expenditure is subtracted from the gained amount DHA is left with a profit of US\$ 25,211. Whether this is enough to help it support itself by covering its other expenditures like paying the employees, maintaining records etc and expand further physically cannot be commented upon as one doesn't know the amount of that expenditure. What this analysis does show however is that DHA managed to create the value and capture half of the amount that the individual allottee finally received (ratio= $56,824:25,211 = 2.25: 1$) and this particular process took 23 years.

Table 14: Individual welfare, Respondent C

Welfare Allottee Respondent C: 1,672 sq.m of parcel size (inflation adjusted)										
	1975	1976	1977	1978	1979	1980	1981	1982	1983	Total
Expenditures (costs) US\$										
Acquisition	5,813									
Development charges		2,410	2,188	2,063	1,904	1,700	1,520	1,436		
Membership fee	646									
Transfer fee										
Sub Total (C) US\$	6,459	2,410	2,188	2,063	1,904	1,700	1,520	1,436	0	19,680
Income (Revenue)										
Land sale									17,891	
Sub Total (R) US\$									17,891	17,891
Balance (Subtotal R – Subtotal C)										-1,789

In the case of Respondent C one can see that respondent C's welfare process lasted for 8 years after which they cashed on whatever benefit they had collected in a lump-sum. It appears that Respondent C were unaware of the loss they experienced in monetary value as they only mentioned that the land value at the time of sale wasn't very high as it is now. Tabulated in table 14 however one can see that the respondent did not receive any real welfare as they weren't even able to break even with the amount of development charges that were paid over a course of 7 years that they held ownership of the plot. Respondent C seemed unaware of this fact as they didn't mention it. It only became clear that they faced a loss rather than any monetary gain when the data they provided was tabulated.

One can also see that if we calculate the share of profit that DHA earned from this parcel of land (table) It was US\$16,160. It hence becomes clear that whether the Military officers who have been allotted land benefit from it or not based on their own decisions¹¹ the DHA manages to collect its share and experience no loss based on the design of their system.

It is with information received from respondent C and D that one also realises that development charges have been almost charged like a tax as it is charged annually rather than a one-time charge. This collection is carried out for almost 34 years before a part of land of DHA phase 8 is deemed usable and construction is allowed on it.

¹¹ we refer to it as their 'own decision' to cash in on their alienable rights on land whenever they please as at this point there is not enough data to conclude whether this loss is an anomaly or if it is a regular occurrence and so it cannot be associated to a flaw in the system that is designed by DHA

Table 15: Individual welfare, Respondent D

Respondent D: Allotee welfare- Example (for a 1,672 sq.m of parcel size) (inflation adjusted)																													
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2009	2010	
Expenditures (costs)																													
Acquisition	5,000																												
Development charges		2,410	2,188	2,063	1,904	1,700	1,520	1,436	1,350	1,272	1,205	1,164	1,111	1,021	947	1,570	1,405	1,282	1,166	1,038	924	837	751	707	679				
Membership fee	646																												
Transfer fee																													
Construction cost of house																										287,340			
Sub Total	5,646	2,410	2,188	2,063	1,904	1,700	1,520	1,436	1,350	1,272	1,205	1,164	1,111	1,021	947	1,570	1,405	1,282	1,166	1,038	924	837	751	707	679	0	287,340	0	324,636
Income (Revenue)																													
Land sale (836 sq.m)																										27,118			
house sale (836 sq.m + 5 bed room house)																											423,979		
Sub Total																										27,118		423,979	451,097
Balance																												126,461	

Individual D explained that he got the land in 1975, paid the development charges shown in the table and then in 2000 divided the land into half and sold one half. By that time the prices of the land had not increased that much as they did after 2007¹² when construction was finally allowed in parts of DHA phase 8. The construction cost for the house is used as a rough estimate from houses built in DHA on a similar plot of land and size and not the actual cost of the house in question. The amount of land value captured by DHA in this process amounts to US\$ 37,296- US\$ 3,520 = US\$ 33,776 in a span of 35 years. This makes one wonder about another question that whether DHA gets affected if the respondents sell early and late and immediately looking at this intermediary trend one can see that whether the respondents sell early or late the new owner will have to pay the same development charges and DHA will continue to make profit. The profit will be larger with the amount of time that has passed since it acquired the land itself.

¹² Figure 18 shows the values of land from 2014 while table 12 shows which areas of phase 8 have been allowed construction up till now. If one analyses the information from the two tables one can see that the areas (phases) with a lower value of land are the ones where construction still hasn't been allowed. The difference however is not that great and that is because the potential use of the land is so lucrative that it is in high demand even without the permission of construction.

Table 16: Cost of reclamation, 1979

US\$ Cost of reclamation per sq.m in 1979 (inflation adjusted)				
Area reclaimed	total cost	cost per sq.m	cost of 836sq.m	Source
6,786,819	2,380,405	0.35	292.6	regulation manual

Table 17: DHA's share of welfare

DHA share of welfare- for a 836 sq.m of parcel size- Respondent B							
	1975	1979	1986	1990-95	2002	2014	
Expenditures (costs) (US\$)							
Acquisition (existing land cost)	159						
Cost of reclaimed land		293					
Cost of Development¹³						3,068	
Sub Total (C)	159	293	0	0	0	3068	3,520
Income (Revenue) (US\$)							
Sale of land (on paper only)		2,666					
Development charges		9,521	5,820	5,964			
Membership fee		4,760					
Transfer fee							
Sub Total (R)		16,947	5,820	5,964			28,731
DHA share	Sale of land-acquisition						25,211

Table 18: Current price range of 836 sq.m of parcel of land (2014)

(US\$)Current price range of 836 sq.m of parcel of land (2014)						
Sector	A	B	C	D	E	Ph VIII extension
Official Price of land	15,752	15,752	15,752	15,752	15,752	No data
Market price of land	445,000-643,000	500,000-545,000	390,000-435,000	356,000-390,000	376,000-415,000	No data

Note: The official price of land has not been updated since 2001 as according to sources that was the last time the valuation table was published.

It can preliminarily be concluded from this section that The DHA process caters to welfare in two ways. One is directly through the land value increment that goes straight to the allottee military officer upon the sale of their allotted land (refer to table 13). The second is, by creating a real estate system, each stage of which allows them to capture a certain value of land to be used in sustaining and expanding the system so it continues to provide for the military officers. However, there is more to it than these preliminary conclusions of this section and that is can these benefits be understood as 'extra' welfare.

¹³ The cost of development has been taken from an interview with a contractor of Rich high income housing scheme who gave a rough estimate based on the last high income settlement that he was a part of recently.

4.3.5 Can this be understood as welfare?

What can be preliminary concluded from the findings in the previous sections is that DHA can be considered a welfare mechanism to a certain extent but not completely. There are two reasons for this preliminary conclusion.

While the sample size isn't big enough to conclude that everyone receives a benefit through land it is consistent in informing us regarding the charges on each parcel of land. This shows that the initial development instalments are charged such that the amount that the respondents pay in the first seven years at least is more than the value of the land, in the first seven years. While the organisation itself receives an immediate benefit the actual direct beneficiary cannot cash in their benefits for at least the first ten years of receiving it while continuously taking a share of their income or savings every year. Hence the underlying terms become such that they exclude officers who don't have a large amount of savings and perhaps don't come from rich families. Such underlying exclusion makes the welfare effort a little selective and not for all officers. Again out of those who can initially it was a long term commitment and investment where the savings are tied to the land which is decreasing slowly in value initially.

The second point is that these initial and continuous charges inform us that there is a steady income being generated for DHA. While one can't conclude what this funding is being used for one can say that one of the uses is getting more land and hence allotting more plots for military officers. This can be seen in the form of DHA City, Karachi which is an extension of DHA Karachi and extends DHA Karachi to phases 9 and 10. However, one could have deduced this as a preliminary conclusion had it not been for the criteria that DHA city Karachi has advertised itself with. The parcels of land are open to the general public for allotment as well as the military officials¹⁴. The military officials get a discounted rate in comparison to the non-military who also get a direct allotment however one wonders that in such a chase to earn profit, DHA is taking away the right of some of its military officials by including non-military members in the balloting process. This reflects that it is functioning more and more like a corporation, that it is not only competing with the private sector by adopting certain aspects but actually beginning to function like one where profit becomes a big goal.

There is also a third point which raises the question whether this is completely a welfare system or not. If one looks at the objective of the three transformations that DHA has undergone one can see that it is fast turning into a non-welfare organisation funded by the idea of welfare. At the beginning when it was a Co-operative housing society its objective was to provide land to the retired military officers. On its transformation into an Authority one can see that the DHA mandate says that it is to provide welfare to the military officers as well as raise the standard of housing in Pakistan (Government of Pakistan, 1980). The same objective is stated in the website of the organisation except when one looks for DHA city Karachi which is technically the extension of DHA Karachi and under the same mandate, it has been given a completely different page on the website and its objectives don't mention the term welfare. If the profit made by DHA Karachi has been instrumental in providing funding for DHA city Karachi which no longer mentions welfare of military officials as its objective and instead speaks about revolutionising housing in Pakistan one cannot call DHA a fully welfare system as it has been used to fund a project that only partially provides welfare and doesn't mention welfare in its objectives¹⁵

¹⁴ <http://dhatoday.com/how-to-buy-a-plot-in-dha-city-karachi-dck/>

¹⁵ <http://www.dhakarachi.org/dhacity/index.aspx>

Chapter 5: Conclusions and recommendations

5.1 Conclusions

The conceptual framework presented in chapter two proposes three scenarios. From the Data analysis it becomes clear that scenario 3 is the situation that represents DHA. This chapter discusses the findings with reference to the conceptual framework and how scenario seems to be the conclusion.

To summarise the costs that have been imposed on DHA, it can be seen that the acquisition cost for land is very low. This cost being low has been attributed to various reasons that have been discussed in preliminary conclusions in chapter 4. The low acquisition costs have identified that although it is portrayed as a normal transaction (as there is no knowledge of expropriation of the land leased to DHA) it is not a normal transaction of land in the open land market. This leads one towards the procedure of eminent domain as summarised in Chapter 2. One of the purposes of this chapter hence becomes not just to establish the system that is designed through law but also to check if it is functioning the way it has been designed.

The Pakistani legal system related to land acquisition seems to be relatively well structured. Although the term ‘public purpose’ is not well defined exactly, there is a clear indication where it should lie within its definition. However having said this because it’s not defined through statute, the interpretation is left for judiciary to decide which is perhaps not good if the judiciary is not strong enough to use it to maintain equality and justice. The Acquisition Act 1894 states directions and conditions for the determination of compensation. These clearly appear to have been influenced by the indemnity principle. The statute acknowledges property rights. It can hence be concluded that the design of the system reflects characteristics of an inherent powers system with indemnity principles which can mostly be possibly if the judicial system is stronger or equal in power to the state. However, with an acquisition cost that does not seem to reflect the market price and lack of any acknowledgement in records regarding a previous land-use that was compensated the system functions more like an inherent rights system. This leads one to think that the State or even perhaps a department of the State is powerful enough to allow this to happen (Fig 10). Hence the result is not just cheap land but cheap land in a large amount- with the power to make a land bank which further increases the profit as it creates an unnatural situation where the cost of the land does not increase in the market despite it being surrounded by land that has been assigned a highest and best use . This stunted cost proves that perhaps some kind of power play was in effect which either led the market to be unaware of the transactions and changes in land use upon transaction or the transaction of lease never took place with reference to the market and it was a private deal backed by the power of eminent domain. An eminent domain designed to acknowledge property rights but functioning to acknowledge none except of those that are perhaps most powerful.

If we express the above through visualisation then:

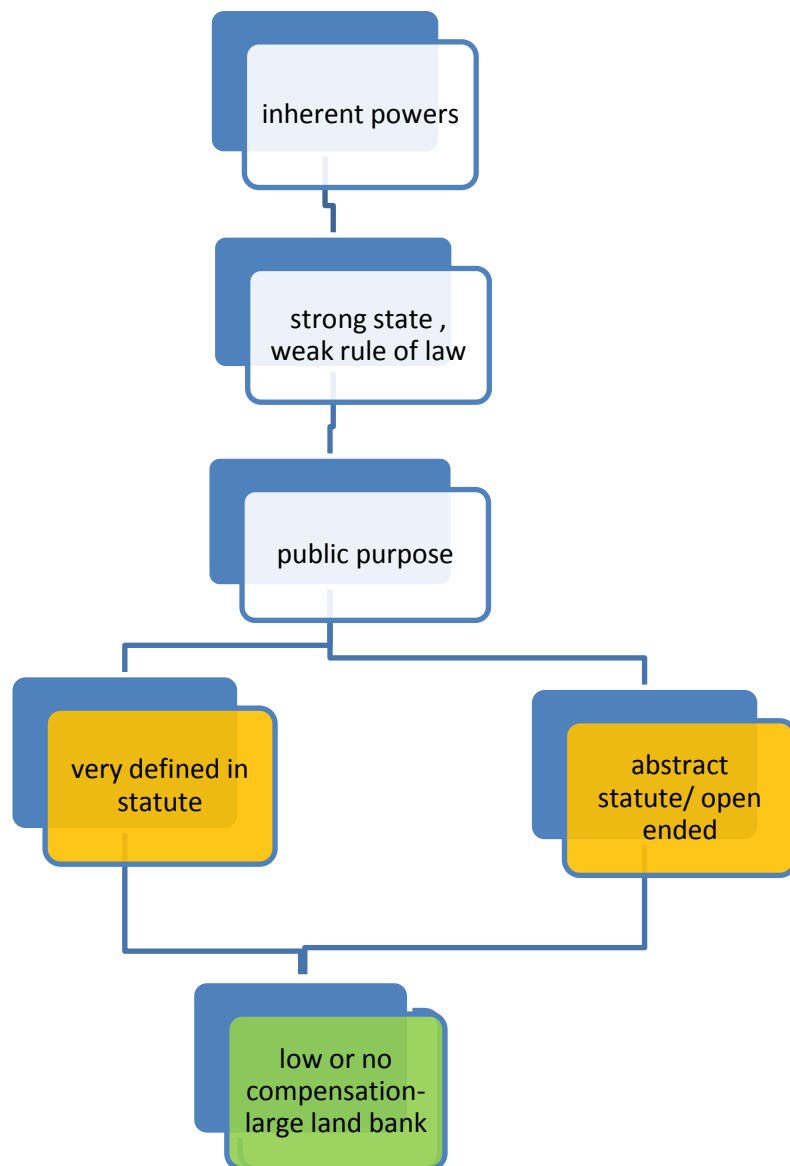


Figure 10: Inherent Power – Option 1

Figure 12 shows the system as it functions and allows the formation of land banks.

Figure 13 shows the potential representative cost in the form of obligations that DHA could be eligible to according to the land laws of Pakistan. Figure 14 shows that what obligations are imposed in reality through loopholes and perhaps a case of a strong state and weak judiciary and property law is taking place as a result of which there is no record of any compensation being provided for hidden case of eminent domain. As a result one can see that the costs and obligations of this real estate project, as far as the land acquisition stage are concerned, have been massively reduced.

Figure 11: Conceptual components of acquisition

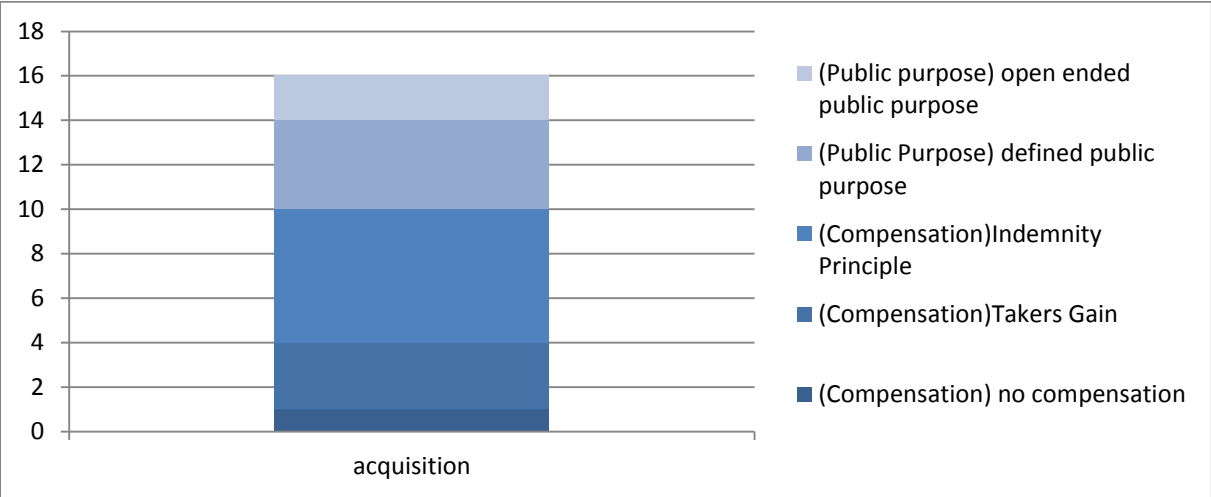


Figure 12: The System as designed by law

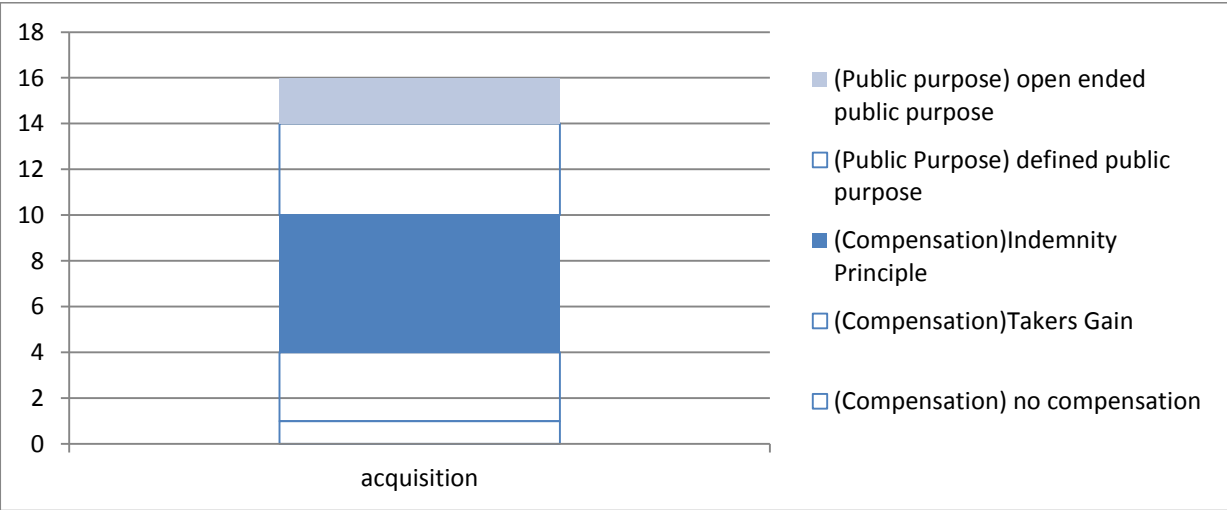
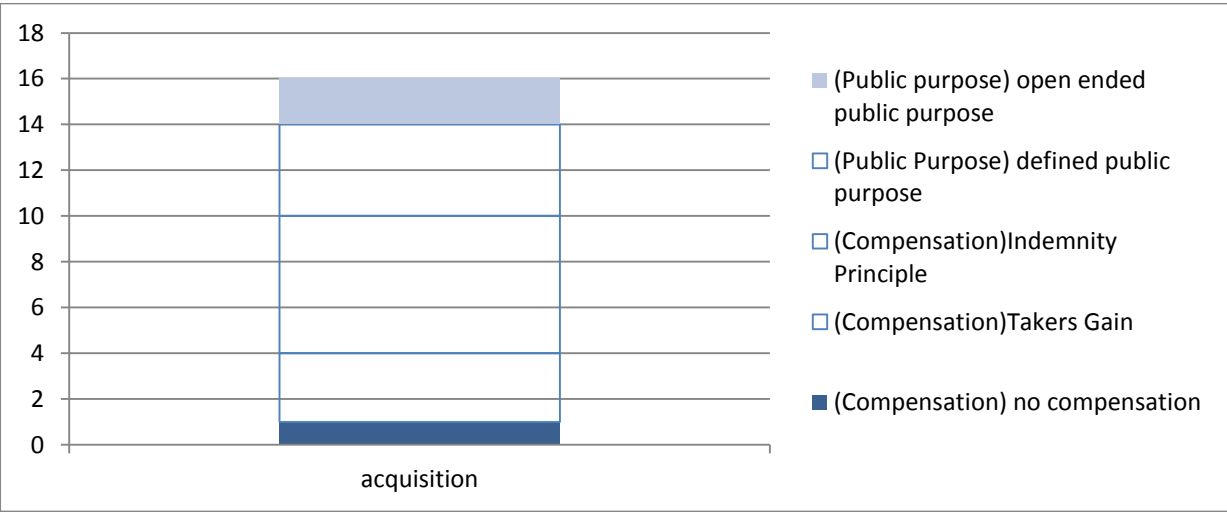


Figure 13: The System as it functions to accommodate DHA



The regulation stage of real estate comprises of allotting a land use, a size and a location relative to its surroundings. When an undeveloped land is allotted these, its value increases. There are three categories of effects that are discussed in theory; restrictive effects, scarcity effects and amenity effects. While an increase in restrictive effects decreases the value of land, an increase in scarcity and amenity effects increases the value of land. Thus it can be seen that over a period of time the contracts were made less restrictive in nature with obligations made more open ended or left unspecified than before. This resulted in even more opportunities to gain profit as with time, when the obligations were made obscure opportunities through loophole could be created and were created as amenity land was used for commercial recreational and high density luxury housing. These changes in land-uses were made possible through loopholes and obscurity as with time the highest and best use changed and it was allowed to change without any land cost. The removal of land cost from the costs that went into developing the new land-use ended up as profit for the DHA.

In the case of the amenity effects; what theory discussed was that amenity effects are directly proportional to the land value. If they increase the land value increases but the equality of balance is maintained through the cost that goes into the land that is purchased and put aside for amenity use – that is restricting the land-use to a lower use than the highest and best use. Its bigger effect is that the value of the surrounding land-use increases. In the case of DHA they got allotted amenity land for free. So they had the advantage of saving cost of setting aside land for a lesser use. Normally amenities are not the highest and best use so in setting aside purchased land a developer is paying some price for the increase in value it earns for its other parcels. In DHA's case this cost was diminished. Not only this along with the obscurity in the lease clause and a decrease in restrictive effects, some of the amenity land was used for commercial recreational purpose. This kind of land-use not only earns its own land value by increasing steadily more than an amenity land but it also allows its surrounding parcels to increase in value. Because DHA was allowed autonomy through a statue it was able to impose exactions in the form of various processing fee, development charges etc and capture the increasing value.

The research has been unable to identify any scarcity effects that have resulted in an increase in land value.

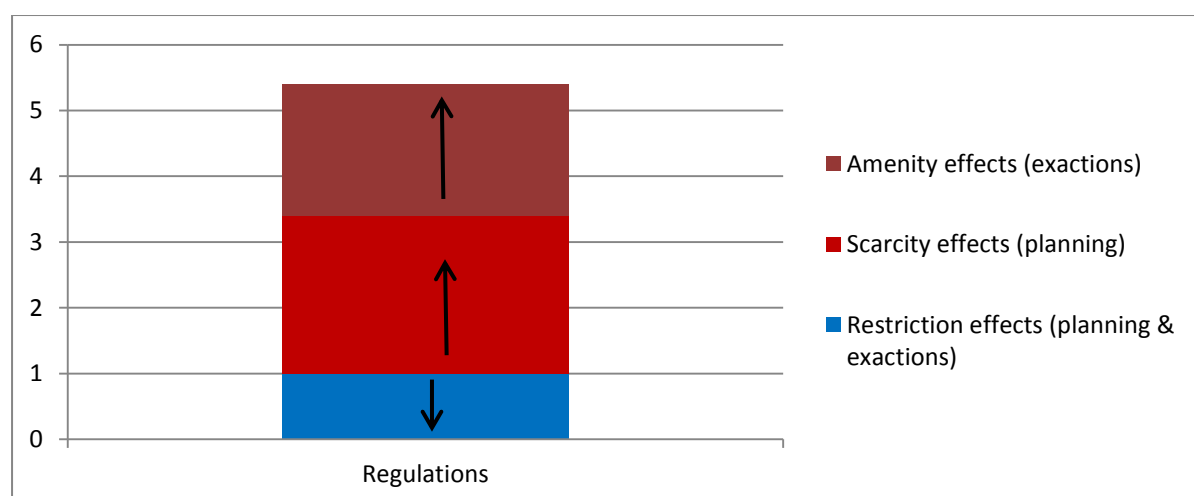


Figure 14: Land regulation components in theory

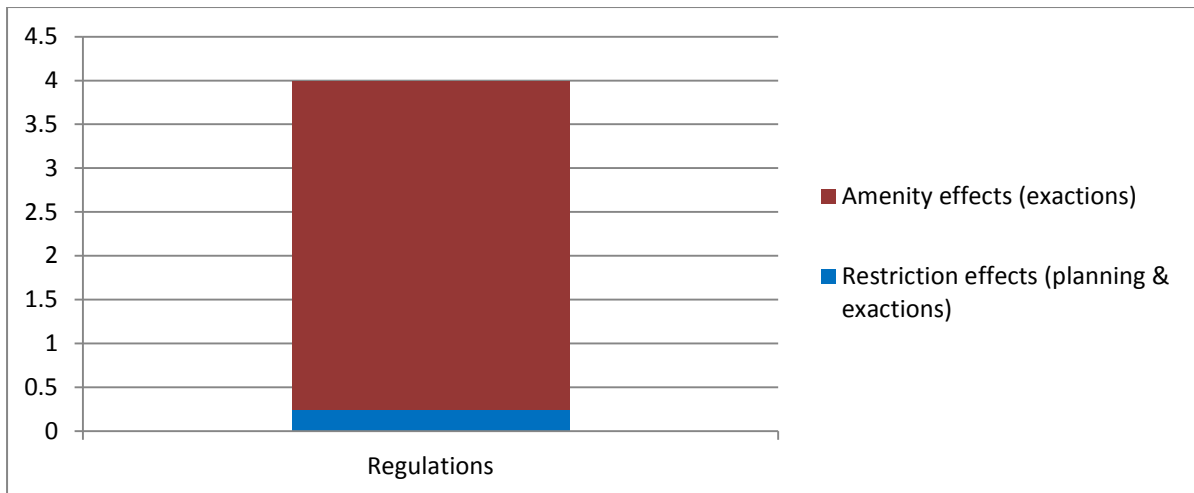


Figure 15 : Land regulation components as practiced by DHA

The captured value in terms of how the land is valued today is not being captured by either of the two lessors, and not just that but the value of the land at the time of the lease contract was also subsidised.

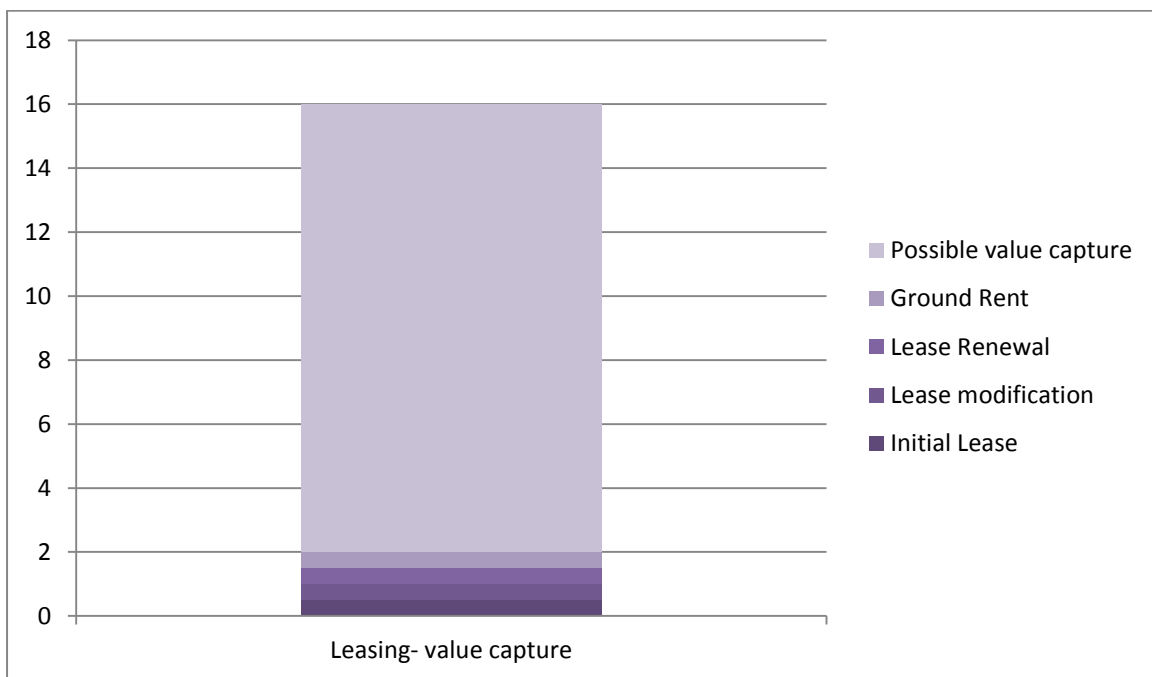


Figure 16: Potential Value Capture

The linearity in the results of land leasing that was expected is not the ground reality. The ground reality is that according to the legal system the amount of value that can be captured if we just look at PQA lease policy then we can see that the Government of Pakistan could have captured more value. This value capture would have forced DHA to share the benefits it was able to enjoy through the land regulations as a result of which it captured a lot of value. However not only was DHA able to enjoy all of its value capture through the regulations but

because the Lessors weren't able to capture much of it through leasing mechanisms, Leasing mechanisms ended up adding very little cost to the real estate process of DHA.

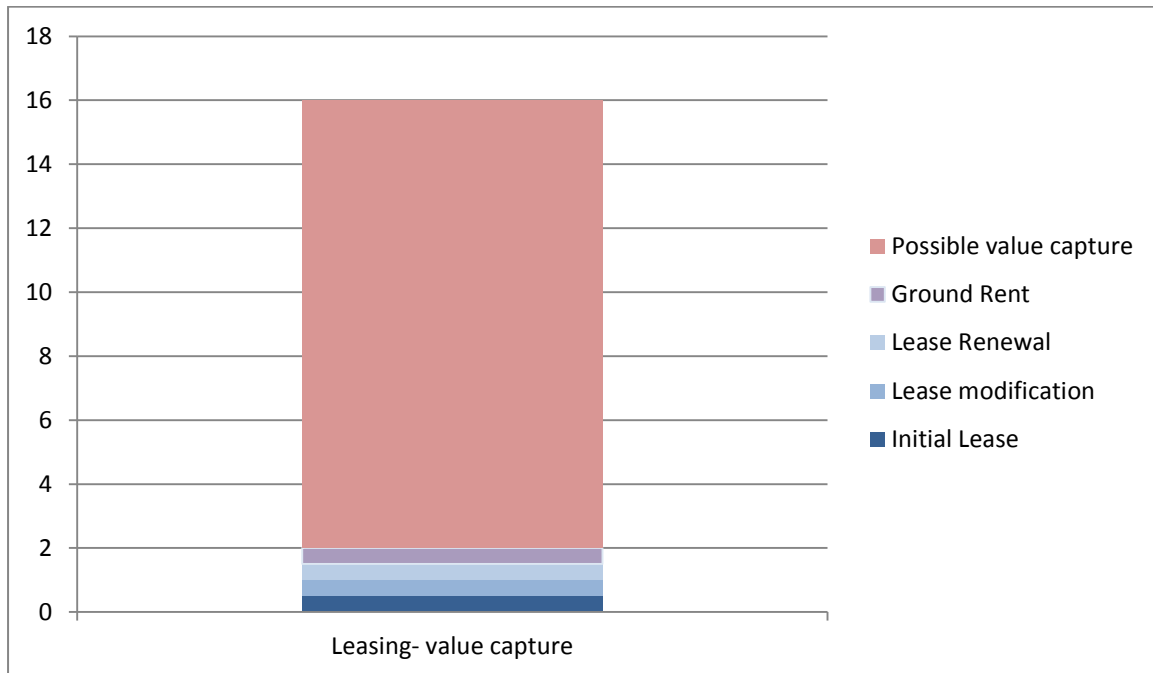


Figure 17: Value Captured by DHA

As a result one can see that if we pull the benefits and the costs together in one graph it will look something like situation 3 presented in the conceptual framework. The difference between the benefits and the costs is used for welfare partly by DHA and partly by the individual military officer as has been revealed through the findings of sub question 4. It can also be defined as the value capture of land.

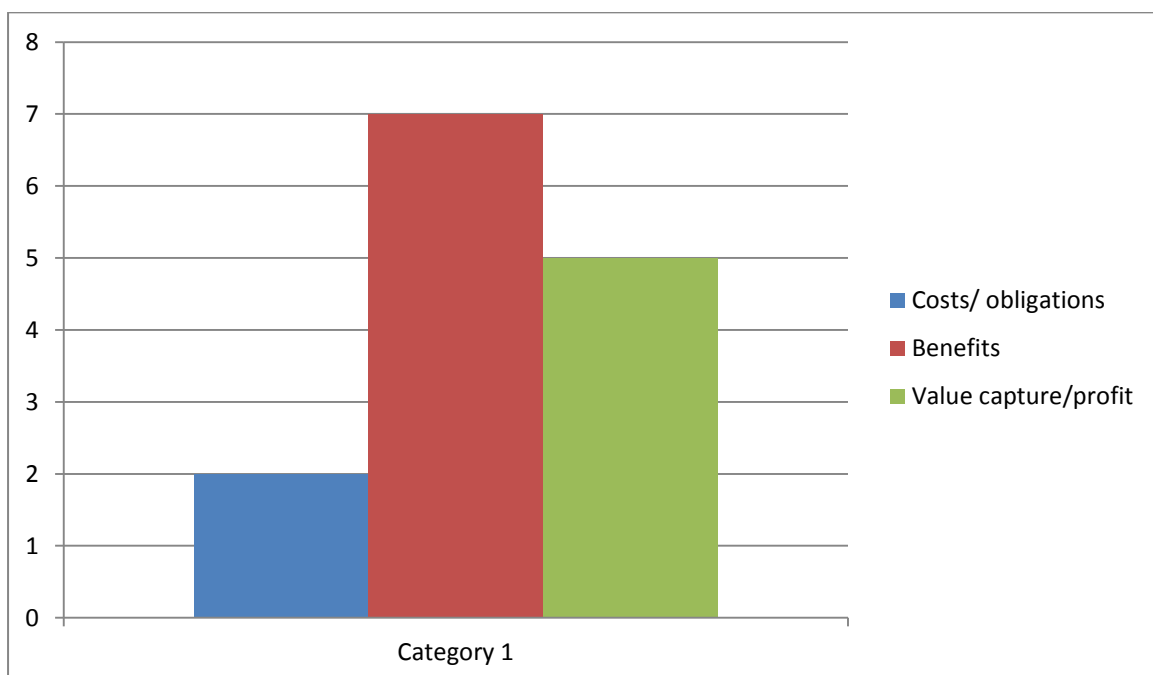


Figure 18: DHA Real Estate Scenario

There are a few implications of the analysis above as the notion of welfare is put into question in reference to the way it is being practiced. It must be clarified here that the notion of welfare and why the military officials are receiving it is not in question. The idea that welfare is necessary for them is not being questioned, but its practice is, as the system partially serves its purpose but pushes boundaries to make more profit. The welfare system is inefficient in two ways- one it is designed such that the richer military officers can benefit from it more and perhaps military officers from a poorer background will not have sufficient funds to be able to pay the instalments. The second is that the welfare is heavily economically subsidised and is evolving into a system that is potentially going to take away the chance for a military officer from being allotted land through a balloting process as civilians will be able to directly apply in DHA city Karachi scheme.

So one of the questions then becomes if without all the economic subsidies that DHA has received, would it still be able to make profit and continue to be sustainable? Would it allow the Lessor to become more sustainable as well? This can be a study that follows. This will also help establish if the exactions on land that are presently being charged can be lowered making it possibly for officers from different income groups to benefit from it. Perhaps a cross subsidy between officers can be looked into and established.

Another thought that comes to mind is that what is the point of this ineffective formality in the form of land leasing? If the government cannot exercise any rights as a lessor then what is the point of owning that land on paper and being the Lessor? Is it just a waste of government resources when there is so much potential in it that is not being tapped and seems like it won't be tapped for a long time. When such questions keep spiralling out of a process that has been clearly defined within a certain framework one realises that the land dealings are deeply entrenched with politics and the power struggle and hence extremely complex and in a state of constant flux. The fact that the military is allowed to make a land bank towards one side of the city reminds one of Diaknoff's (1974) hypothesis regarding a private ownership of land by the upper middle class who had military power. They could acquire land and have their own laws within it, different from the rules of the city that were set by a power other than the goddess (city). The goddess in that time dictated the laws of the land and can be compared to the city in the present age. It also makes one think that perhaps the subsidies are present for the military not just for the military men to be loyal to the military but also perhaps the military to stay loyal to the ruling government since it possibly has the potential to be strong enough to carry out military coups¹⁶. One can also draw patterns from the feudal system discussed earlier where it seems land leasing stems from feudalism. Just like the king gave away land to his nobles who in turn gave it to the lesser noble and then peasants, each keeping some profit at their level which was paid by the ones working their land at the end of it the token of paying to the king through the chain that is created becomes more a symbol of power rather than a means of generating wealth for the king (the state in this case) In the case of this research perhaps the state or the ruling government wants to just know that it does control land on paper. There are too many questions still that are unanswered and one feels that it is not the inadequacy of the research but as mentioned before the research is just one piece of a very big puzzle. It inevitably is connected to a lot of other studies which form other pieces of the same puzzle.

Hence one can recommend a few preliminary steps that can be looked into as studies that can be attached to this study.

¹⁶ Pakistan has a history of military coups where the civilian government is taken over by military administration

5.2 Recommendations

The most crucial of recommendations must be that the military needs to see the greater damage that is being done by its welfare actions. While providing welfare to the officers in somewhat inefficient way the inefficiency is being paid for by the rest of the country. A good income that can come from this process for the government in the form of land value capture is being compromised. And this compromise is not at the design level of the system because what we have clearly seen in the research is that a system that can support equity is in place, the problem is the people running the system and being able to manipulate it. The manipulation cannot be termed selfish but rather a bit short sighted and lacking a wider knowledge of things. A prosperous and loyal military created through such ineffective use of resources will result in an internal collapse. External threat wouldn't need to conquer by force. They wouldn't need to spend any efforts on conquering or taking over. It is being done out of the lack of a bigger understanding of things which comes again as a result of hiding of information that should be available to the public. This study makes it ever more clear that land management needs to be efficient, ever evolving to adjust to the times it serves and to be transparent and accessible so there is more equity. One can see the military doing that wearing the hat of the developer in the case of evolving its ways of functioning but unfortunately they are fuelled by earning profit and perhaps providing welfare to their own people which is fair enough as an organisation but as their bigger purpose they are supposed to protect the people of the country and by allowing such inefficient welfare systems it is harming the welfare of the rest of the people of the country. If the military is influencing decisions at the national land policy level then they cannot only think about their own organisation. With the great power that they are exercising they cannot just limit their focus to their own people and their welfare- they have to take into account the wider welfare of the entire land and the people that belong to the country because that is when they are serving the purpose that they have been created for- to safeguard the country and its people.

To aid the military in understanding the impact of their welfare actions on the rest of the city the next step would be to recommend a study that looks into the impact of the land values of the Defence Housing Authority on the land and housing that surrounds it and is a part of the city.

The second recommendation revolves around the idea that although we have concluded that a system that acknowledges equity exists, there is always room for making the system better. Developing strategic plans with statutory powers to aid them is one way. There should be a strategic land development plan for all the land in the country. One can see that strategic development plans are created at a city level but perhaps one needs to look into how strategic development plans of two cities close to each other come together and if they complement one another. Such a plan must be designed by people who are aware of the issues of the city. A possible advantage of such a plan would be that all the land would be taken into consideration and recorded and strategies developed for its future use. This should ideally prevent any land from being called undeveloped to a point that it has very low value because all of it will have some use strategized for it. This could possibly cover some loopholes that are presently being taken advantage of. The strategic plan however has to take into consideration all the land owners as well as the land users. To aid this perhaps what is required is a remaining study of a similar nature to be conducted for all the other land owners who have a big share in the land that physically makes up the city of Karachi.

References

- Albrechts, L., 2004. Strategic (spatial) planning re-examined. *Environment and Planning B: Planning and Design*, 31 pp. 743-758. Available at: <http://www.arch.mcgill.ca/prof/luka/urbandesignhousing/klwb/holding/fordham/Albrechts2004.pdf> [Accessed 04.09.2015].
- Alterman, R., 2012. Land use regulations and property values: the "windfalls capture" idea revisited. In: N. Brooks, K. Donaghy and G. Knaap eds., 2012. *The Oxford handbook of urban economics and planning*. Oxford: Oxford University Press. pp. 755-786. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2309571. [Accessed 27.08.2015].
- Ambaye, D., Weldegebriel, ed., 2009. Land valuation for Expropriation in Ethiopia-valuation methods and adequacy of compensation, [Spatial Data Serving People: Land Governance and the Environment – Building the Capacity]. Hanoi, Vietnam, 19-22 October. Copenhagen: FIG International Federation of Surveyors. pp. 1-38.
- Azuela, A., 2007. Taking land around the world: International trends in the use of eminent domain. *Land Lines, Lincoln Institute of Land Policy*, July pp. 14-19. Available at: http://www.lincolninst.edu/pubs/1261_Taking-Land-Around-the-World [Accessed 01.09.2015].
- Azuela, A. and Herrera, C. 2009. Taking land around the world: International Trends in the Expropriation for Urban and Infrastructure Projects. In: S. V. Lall, B. Yuen, J. J. Helluin, M. Freire and R. Rajack eds., 2009. *Urban Land Markets*. The Netherlands: Springer Netherlands. pp. 337-362. Available at: http://link.springer.com/chapter/10.1007%2F978-1-4020-8862-9_13. [Accessed 26.08.2015].
- Bigham, H., W., 1970. Fair market value, just compensation and the constitution: a critical view. *Vanderbilt Law Review*, 24 (1), pp. 63. Available at: http://heinonline.org/HOL/Page?handle=hein.journals/vanlr24&div=12&g_sent=1&collection=journals#77 [Accessed 26.08.2015].
- Bloch, M., 2004. *Feudal Society- The growth of ties of dependence*. New York: Routledge.
- City District Government Karachi, 2006. *Karachi Master Plan 2020 - Draft Development plan*. Karachi: City District Government Karachi. Available at: <http://www.urckarachi.org/KMP-2020-Draft%20Final%20Report.pdf> [Accessed 22-12-2014]. The master plan for Karachi which addresses the issues regarding the city and a strategic framework to address them. although it claims to propose a strategic framework it is not a comprehensive strategic framework.
- City District Government Karachi, Master Plan Group of Offices, 2007. *Karachi Strategic Development Plan*. Karachi: City District Government Karachi.
- Defence Housing Authority, Executive Board, 1980. *Pakistan Defence Officers Housing Authority Regulations*. 1989. Karachi: Defence Housing Authority. Available at: <https://www.dhakarachi.org/dha-regulations.aspx> [Accessed 21.08.2015].

- Diakonoff, I. M., 1974. Structure of society and state in early dynastic Sumer. Structure of society and state in early dynastic Sumer. 1974. Structure of society and state in early dynastic Sumer. Moscow: .
- Evans, A., W., 2004. Economics, real estate and the supply of land. India: Blackwell Publishing.
- Evans-Cowley, J., 2006. Development exactions: process and planning issues. Cambridge: Lincoln Institute of Land policy. Available at: <https://www.lincolninst.edu/subcenters/teaching-fiscal-dimensions-of-planning/materials/evans-cowley-planning.pdf> [Accessed 27.08.2015].
- Finberg, H. P. R., 1972. The Agrarian History of England and Wales: volume I. Cambridge, England: Cambridge University Press.
- Government of Pakistan, 1824. Land Acquisition Act. Islamabad: Government of Pakistan. Available at: <http://www.punjablaws.gov.pk/laws/12.html> [Accessed 18.08.2015].
- Government of Pakistan, 1980. DHA Presidential Order, Ordinance no. XLI. Islamabad: Government of Pakistan.
- Government of Pakistan, Ministry of Defence, 2007. Cantonment Board Clifton Building Bye-laws. Rawalpindi: Government of Pakistan. Available at: <http://www.cbc.gov.pk/pdf/building-laws/Building%20Bye-Laws%202007.pdf> [Accessed 18.08.2015].
- Hasan, A., Ahmed, N., Raza, M., Sadiq, A., et al., 2013. Land ownership, control and contestation in Karachi and implications for low income housing. London: IIED. Available at: <http://pubs.iied.org/pdfs/10625IIED.pdf?> [Accessed 09-03-2015].
- Hong, Y., 1998. Transaction costs of allocating increased land value under public leasehold systems: Hong Kong. *Urban Studies*, 35 (9), pp. 1577-1595.
- Hong, Y. and Bourassa, S. C., 2003. Leasing public land. Cambridge, USA: Lincoln Institute of Land Policy. Available at: http://www.lincolninst.edu/pubs/800_New-Publication--Leasing-Public-Land [Accessed 18.08.2015].
- Jaegar, W., 2007. How have land-use regulations affected property values in Oregon. 1077), Corvallis: Oregon State University. Available at: <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/6138/sr1077.pdf?sequence=1> [Accessed 26.08.2015].
- Jensen, M.,C. and Murphy, K., J. 1990. CEO incentives: it is not how much you pay but how. *Harvard Business Review*, 3 (May-June), pp. 138-153. Available at: http://papers.ssrn.com/sol3/Papers.cfm?abstract_id=146148 [Accessed 31.08.2015].
- Kelly, D.,B., 2011. Acquiring land through eminent domain: justifications, limitations and alternatives. In: K. Ayotte and H. E. Smith eds., 2011. Research handbook on the economic analysis of property law. Chicago: Edward Elgar Publishing. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1671693. [Accessed 26.08.2015].

- Kohlhepp, D. B., 2012. The real estate development matrix. Draft for discussion and comment. St. Petersburg: The American Real Estate Society Meeting. Available at: <http://www.ccimef.org/pdf/2012-299.The-Real-Estate-Development-Matrix.4-21-12.pdf> [Accessed 18.08.2015].
- Ling, D. and Archer, W., 2005. Real estate principles: a value approach. McGraw-Hill Irwin.
- Needham, B., 2007. Dutch land use planning. Den Hague: SDU Uitgevers. Available at: <http://library.wur.nl/WebQuery/groenekennis/1850622> [Accessed 05.09.2015].
- Ochoa, O., Borrero and Schechinger, C., Morales 2007. Impacts of regulations on undeveloped land prices. *Land Lines*, 19 (4), pp. 14. Available at: http://www.lincolnst.edu/pubs/1287_Land-Lines-October-2007 [Accessed 26.08.2015].
- O'Sullivan, A., 2012. Urban land rent. Urban land rent. 2012. Urban Economics eighth edition. Singapore: McGrawhill. pp. 127.
- Powelson, J. P., 1988. The story of land: a world history of land tenure and agrarian reform. Lincoln Inst of Land Policy.
- Reynolds, S., 2010. Before Eminent Domain - Toward a history of Expropriation of land for the common good. Chapel Hill: The University of North Carolina Press. Available at: https://books.google.nl/books?hl=en&lr=&id=ZUvoG_gwIrMC&oi=fnd&pg=PR5&dq=reynolds+2010+%3D+expropriation&ots=FX5Fzv8mg1&sig=ItouR3ZCInU7eCOxqhjiU_mpVeo#v=onepage&q=reynolds%202010%20%3D%20expropriation&f=false [Accessed 26.08.2015].
- Siddiq, A., 2007. Military Inc - inside Pakistan's military economy. 1. Karachi: Oxford university press. Available at: http://www.saifullahkhalid.com/wp-content/uploads/2009/09/military1incbyayeshasiddiq_3.pdf [Accessed 09-03-2015].
- Smolka, M., O., 2013. Implementing value capture in Latin America: policies and tools for urban development. PF035), Cambridge: Lincoln Institute of Land Policy. Available at: https://www.lincolnst.edu/pubs/2244_Implementing-Value-Capture-in-Latin-America [Accessed 27.08.2015].

Annex 1

- Lease Agreement document 1975, Govt. of Pakistan & DHA
- Lease Agreement document 2002, Govt. of Pakistan & DHA
- Lease Agreement document 2003, PQA & DHA
- Constitutional Petition No. D-2331 of 2006, DHA
- Agreement document 2006, DHA & AKD Capital Limited & BF property and construction
- DHA Regulation mandate, Defence Housing Authority Executive Board
- Port Qasim Authority Land policy Manual
- Arterial Roads under KMC, 1988-1996, Karachi Metropolitan Corporation
- Budget Highlights KMC, 2015-2016, Karachi Metropolitan Corporation
- Valuation Table 1989, Excise & Taxation Dept., Govt. of Sind
- Valuation Table 2000, Excise & Taxation Dept., Govt. of Sind
- Valuation Table 2001, Excise & Taxation Dept., Govt. of Sind