



EVOLVING 'DANWEI' HOUSING

An alternative way to develop affordable housing in Shenzhen, China

Thesis Plan

Colophon

Evolving 'Danwei' housing

An alternative way to develop former public housing in Shenzhen, China

Thesis plan

Haotian Lin
Student ID 4241479
H.Lin-5@student.tudelft.nl
Department of Urbanism
Faculty of Architecture
TU Delft

16th Jan 2014

Msc3 Urbanism
Thesis Plan (AR3U012)
Graduation Lab Urbansim (AR3U100)
Graduation Studio Complex cities

Cover: Photo of Mutoulong, Shenzhen (by the author)

CONTENT

1 Context	1
1.1 Location	
1.2 'Danwei': work unit	
1.3 Migrant	
1.4 Land system	
1.5 Challenge during Transforming period	
2 Problem field	4
2.1 Land-based development	
2.2 'Danwei' housing	
2.3 Problem statement	
3 Research question	9
4 Methodology	10
4.1 Theory	
4.2 Methodology	
5 End product	13
6 Relevance	14
7 Time schedule	15
8 Literature	16
9 Appendix	
9.1 Theory paper	19
9.2 Text for Graduation Orientation	24
9.3 Analysis	26

1 CONTEXT

1.1 Location

The city of Shenzhen, situated in Guangdong Province in south China, is one of the most fast growing cities in China. Before 1979, Shenzhen was nothing but agricultural villages. The starting point of the development was the implementation of Open Door Policy and the establishment of Special Economic Zone (SEZ), which aimed to boom the economy. Shenzhen was selected as one of the first four SEZs because the neighbouring Hong Kong was thought to be a potential for attracting foreign investment. Attracted by the special economic policy and job opportunities, capital and population flooded into the new city and lead to the economic boom. Nowadays Shenzhen become a national commercial centre. In 2012, Shenzhen GDP ranked fourth in China, after Shanghai, Beijing and Guangzhou (Liu, 2013).

Luohu, a district of Shenzhen, is the research area of the project. It is the city centre with a long history. Like other historic cities, which have already been highly developed, it is suffering from land shortage. Therefore, urban renewal becomes the main way to acquire land for development. One of the significant identities of urban development in Luohu district is “Danwei’ housing, which is a kind of public housing built before 1990s.



Location of Shenzhen



Location of Luohu

1.2 'Danwei': work unit

Before the implementation of open door policy, economic activities were formulated by the state. Everybody belonged to a *Danwei* or work unit, which could be a state-owned enterprise or a department of government. *Danwei* acted as the first step of a multi-tiered hierarchy linking each individual with the central political infrastructure. Workers were bound to their work unit and the work unit was responsible for providing welfare, including housing. Because of the tradition of planning, 'Danwei' housing neighbourhood is also conducted by the work unit.

1.3 Migrant

Shenzhen is also famous for 'migrant city'. The population has developed rapidly since the establishment of SEZ. Shenzhen's population is roughly ten million, of which more than seven million are migrants from all over the country. However, immigration in China is restricted by *hukou* system, a household registration system. While people with high education background can get *hukou* easier, the relatively low-educated migrants are remained the identity of outsider. People without *hukou* cannot enjoy the equal welfare as the locals have. Moreover, a lot of migrants work in labour-intensive industry or low-end service. Considering their relatively low income, the high living cost in metropolitans like Shenzhen becomes a burden to them. There is no doubt that they are one of the most vulnerable social groups in Chinese cities.

1.4 Land system

China has a dual land tenure system. Land ownership is separated from land use rights. Land ownership is categorized as collectively owned or state-owned land. Urban land is absolutely state-owned. Individual or other organizations can only acquire land use right, which has a certain using duration, such as 70 years for residential functions and 50 years for industry.

1.5 Challenge during Transforming period

Social transformation

Having achieved great economic success, Shenzhen now enters a transforming period. Due to the heavy land demand for further development, land price keeps rising. Also, the advantage of cheap labour price does not exist anymore. These two changes drive labour intensive industry, which contribute a lot to the economic soar, moving away. According to the 11th five-year plan (2006), Shenzhen will focus on creative and knowledge-intensive industries. Human capital and technology innovation will become the new generator for economy. Now new generation of migrants is enlarging their influence in the city. Many young and highly educated graduates come to Shenzhen and are engaged in high-tech or creative industry. They also suffer from the high living cost but they have different demand and interest with their predecessor, which is still to be considered by the city.

On-going urban development

The city is experiencing intense spatial transformation. Urban renewal becomes the main force that changes the view of city. Old buildings are torn down while a lot of new skyscrapers are reshaping the skyline. The on-going constructions of high speed railway and metro lines not only create a closer connection between the city and surroundings but also enhance the competitiveness of the city in the regional and global context.



The view of Luohu



Typical 'Danwei' housing

2 PROBLEM FIELD

Problems can be classified into two aspects: land-based development and 'Danwei' housing. Land-based development is a significant phenomenon in China that economic growth heavily relies on investment in land and housing. When it comes to 'Danwei' housing, it is the spot where social and spatial problems have appeared.

2.1 Land-based development

Response to current trend

Due to the emerging global economy, urban policy aims to enhance competitiveness by reshaping city and repositioning the city in the global context (Burgess and Carmona, 2009). Strategic planning is adopted as the main tool to achieve this goal.

Large urban project

The strategic plan is a holistic project addressed to inter-sectorial development objectives. It is a framework consisting of proposals for middle and long term actions, accompanied by a mechanism for short term micro planning. Compared with traditional way of planning, it has a different concept of what a city should be. Planning focus descends into parts: individual areas, nodes, infrastructure networks (Burgess and Carmona, 2009). As the basic element, large urban projects embody the idea of strategic plan and intervene in the crucial area. Large urban projects are large scale and wholesale developments. They usually involve mixed functions including commercial zone, residential area,

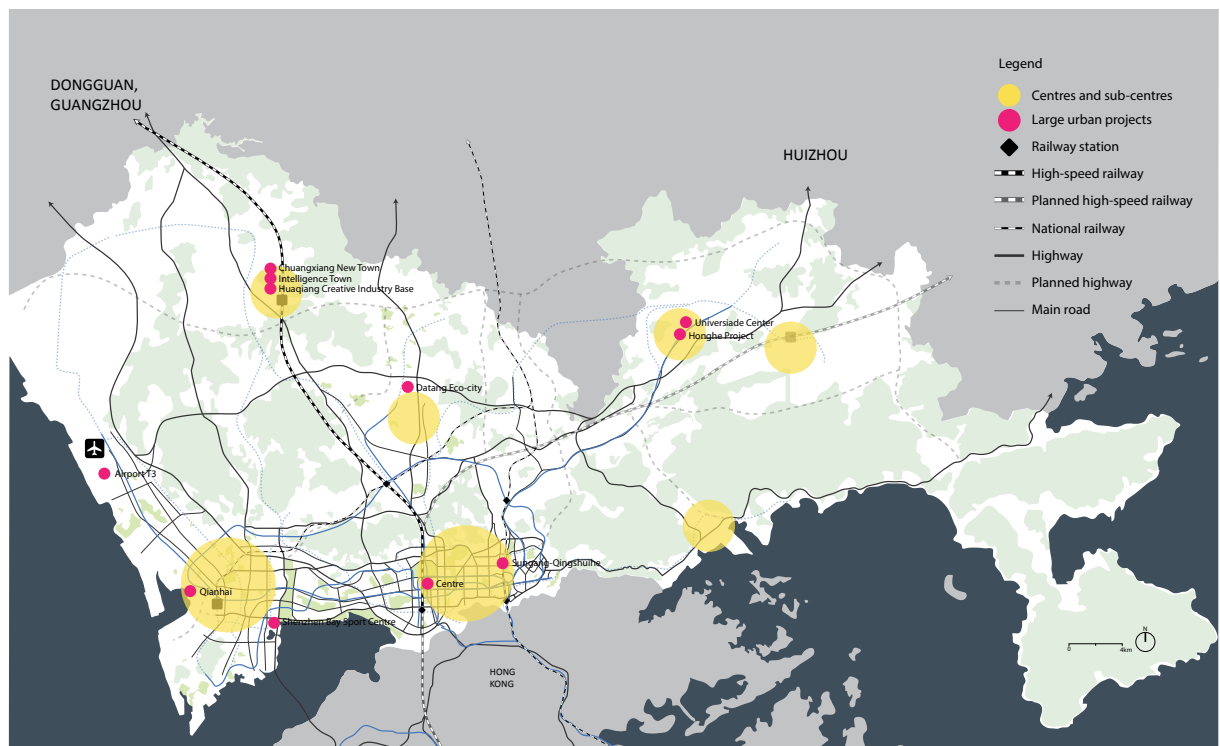
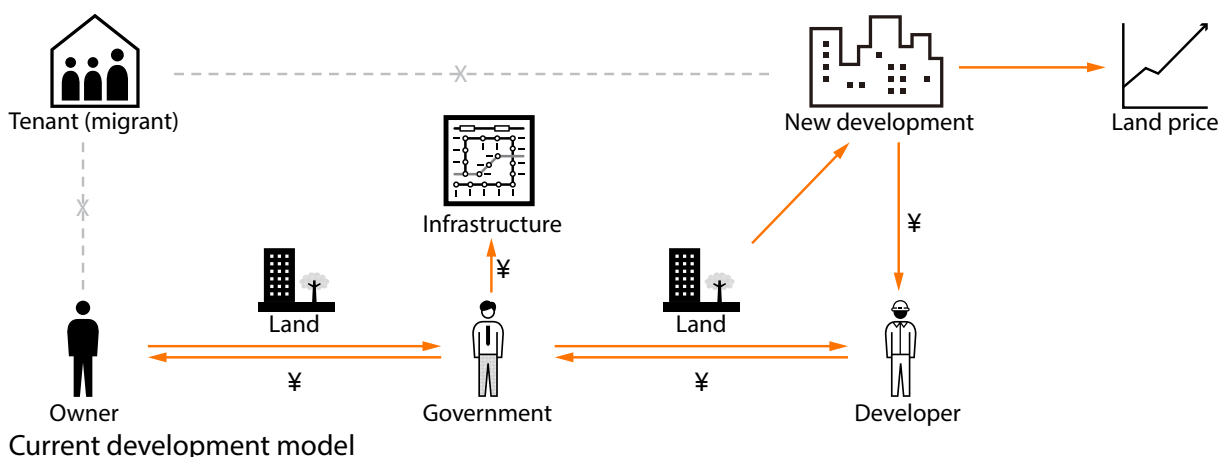


Comprehensive planning of Shenzhen 2010-2020

transport, etc. Their goals are to upgrade inner city and attract investment. Large urban projects strategically enhance urban function and network. In Shenzhen, large urban projects exist together with the city centres or sub-centres, which are considered to be crucial for the city's future development. This type of development mode is necessary and effective in improving city's competitiveness under the current trend.

Current development model

Large urban projects involve huge area of land, huge amount of investment and various stakeholders. There is consensus that government or developers alone can hardly carry out large urban projects.



Large urban projects and city (sub-)centres

Cooperation of government and private developers is needed. Government collects land from land owner and developers purchase land from government. In the development procedure, only the public sector and people or organisations who have property can participate. People who don't have property are excluded. Government wants to enhance infrastructure with revenue from land sale and developers want to make profit from new developments. Economic interest and land shortage together increase the land and housing price. The low-income group cannot afford to have their own housing. Even the middle class find it unaffordable to purchase housing. Though current development model is effective and can greatly improve the competitiveness of the city as a whole, it lacks of consideration of individual or local interest.

2.2 'Danwei' housing

History

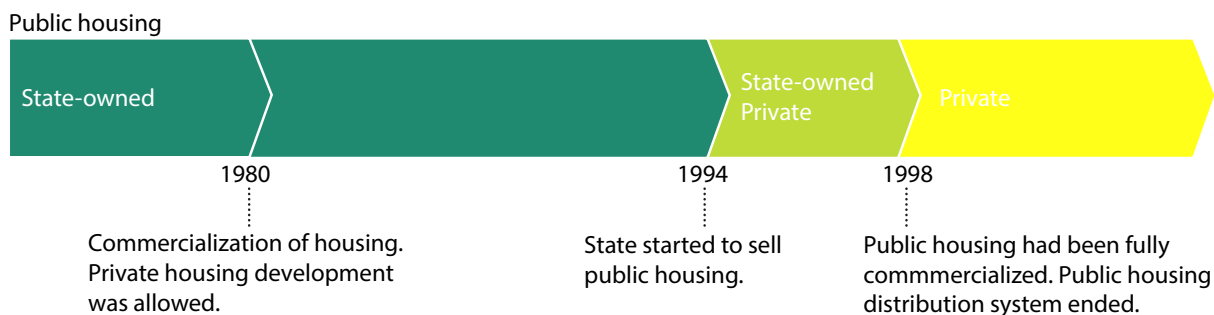
'Danwei' housing is the public housing provided by work units to their workers. However, the provision of public housing cannot meet the growing urban housing demand. In 1980s, housing reform was carried out. It allowed private housing development and tried to tackle urban housing problem by means of market. One of the main strategies was commercialising public housing by selling them to the staff and workers (Chen, 2012). Public sector also retreated from the daily administration of the neighbourhoods, which was expected to be solved by the marketized property management.

Identity

Although some of the public housing was built at the urban fringe thirty years ago, now there are mostly located in downtown because of rapid urbanization. Therefore, they have good accessibility to public service and are well integrated in urban network. To satisfy the great housing demand, these residential areas were usually developed in large scale. Large population of the Chinese urban residents still live in these neighbourhoods.

Degrading socio-spatial condition

However, low design standard and lack of maintenance lead to degradation of these old residential areas. Informal development becomes the main force that maintains and transforms the neighbourhood. For example, inhabitants convert the ground floor of the housing into stores. Some public space is occupied for private use. Because of cheap rent, many low-income migrants settle in. There is a risk of social segregation in these former public housing neighbourhoods.



History of public housing



'Danwei' housing in Luohu



Informal transformation on ground floor

Urban renewal in former public housing

Relatively central location, large size and socio-spatial degradation also make them attractive sites for urban redevelopment, especially large urban projects. As a result of the housing reform, the fragmentation of ownership greatly increases difficulty for redevelopment. Some owners require high compensation which consequently increases the land price. Conflicts between owners and developers or owners between owners are quite common. It always takes a long time for them to form consensus on the redevelopment project.

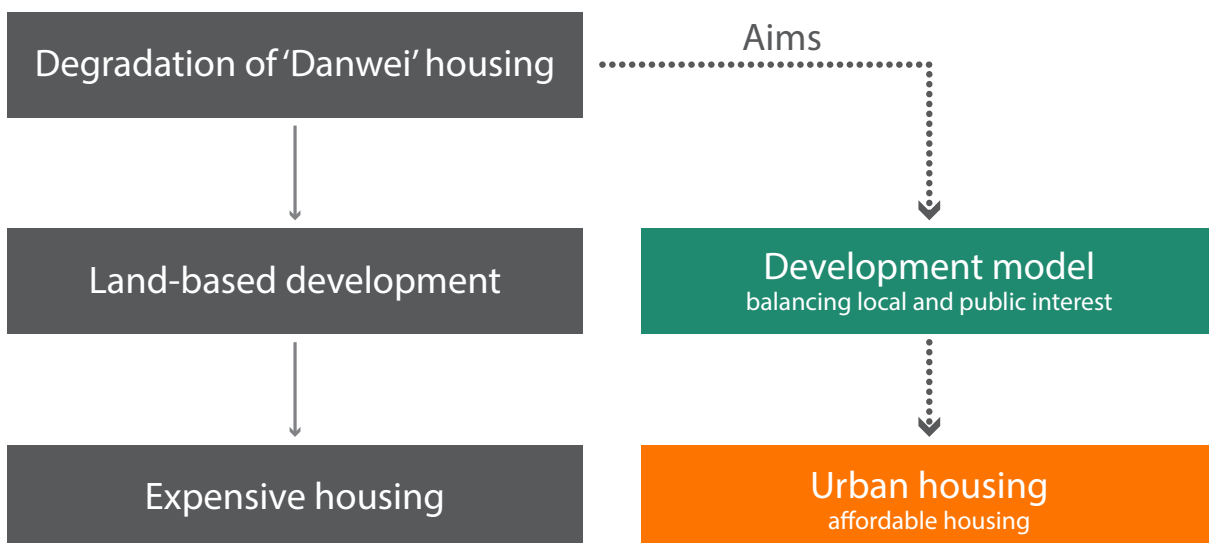
2.3 Problem statement

On one hand, the current development model is a centralized and top-down procedure, which contradicts with the bottom-up and spontaneous informal community transformation. The contradiction leads to the difficulties in urban renewal. On the other hand, the model focuses on public interest, that is, the competitiveness of the city. The migrants, including the workers and young professions, are suffering from the unaffordable housing price. The interest of the social weakness group is less concerned. Degradation of the old neighbourhood leads to redevelopment which finally leads to unaffordable housing price. Problems both lie in the process and the result of the current development model. The problems are:

- **The contradiction between the centralized development model and the fragmentation of ownership leads to the difficulties in developing 'Danwei' housing.**
- **Land-based development model lacks enough consideration on local interest.**

The aims are:

- A new development mode balancing local and public interest.
- Tackling urban housing problem, that is, affordable housing for social weakness groups.



3 RESEARCH QUESTION

What kind of urban renewal strategies can balance the local and public interest and resolve the urban housing problem in former public housing neighbourhood of Shenzhen?

Sub research questions:

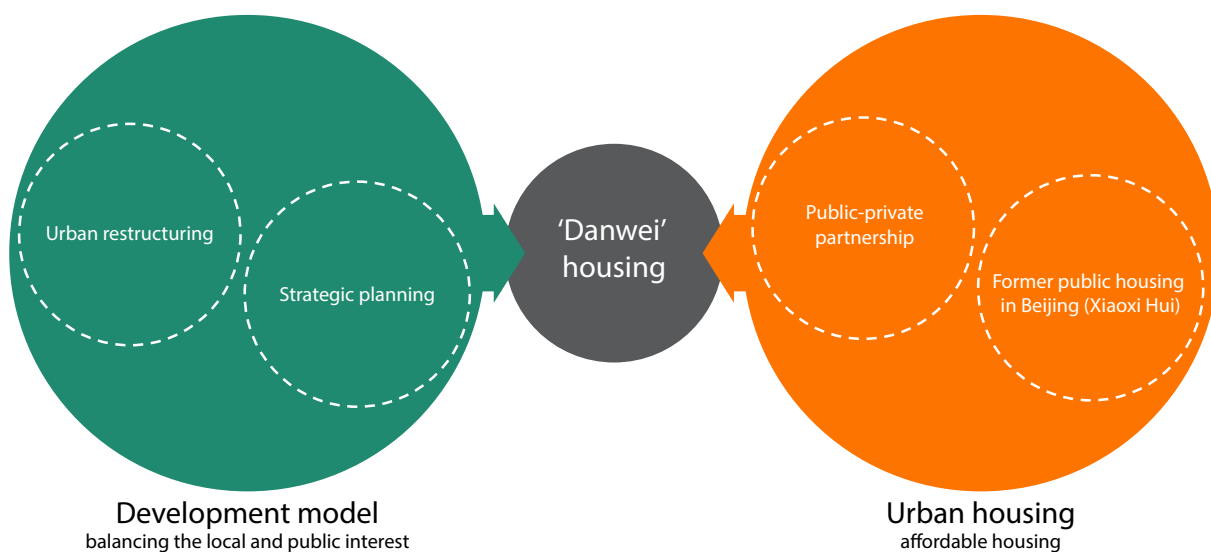
- Which current spatial conditions strengthen or weaken the 'Danwei' housing's role of affordable housing?
- What kind of affordable housing can satisfy local demands in Shenzhen?
- How can 'Danwei' housing contribute to the city development in the transforming period?
- What kind of mechanism can balance the local and public interest in developing 'Danwei' housing?

4 METHODOLOGY

4.1 Theory

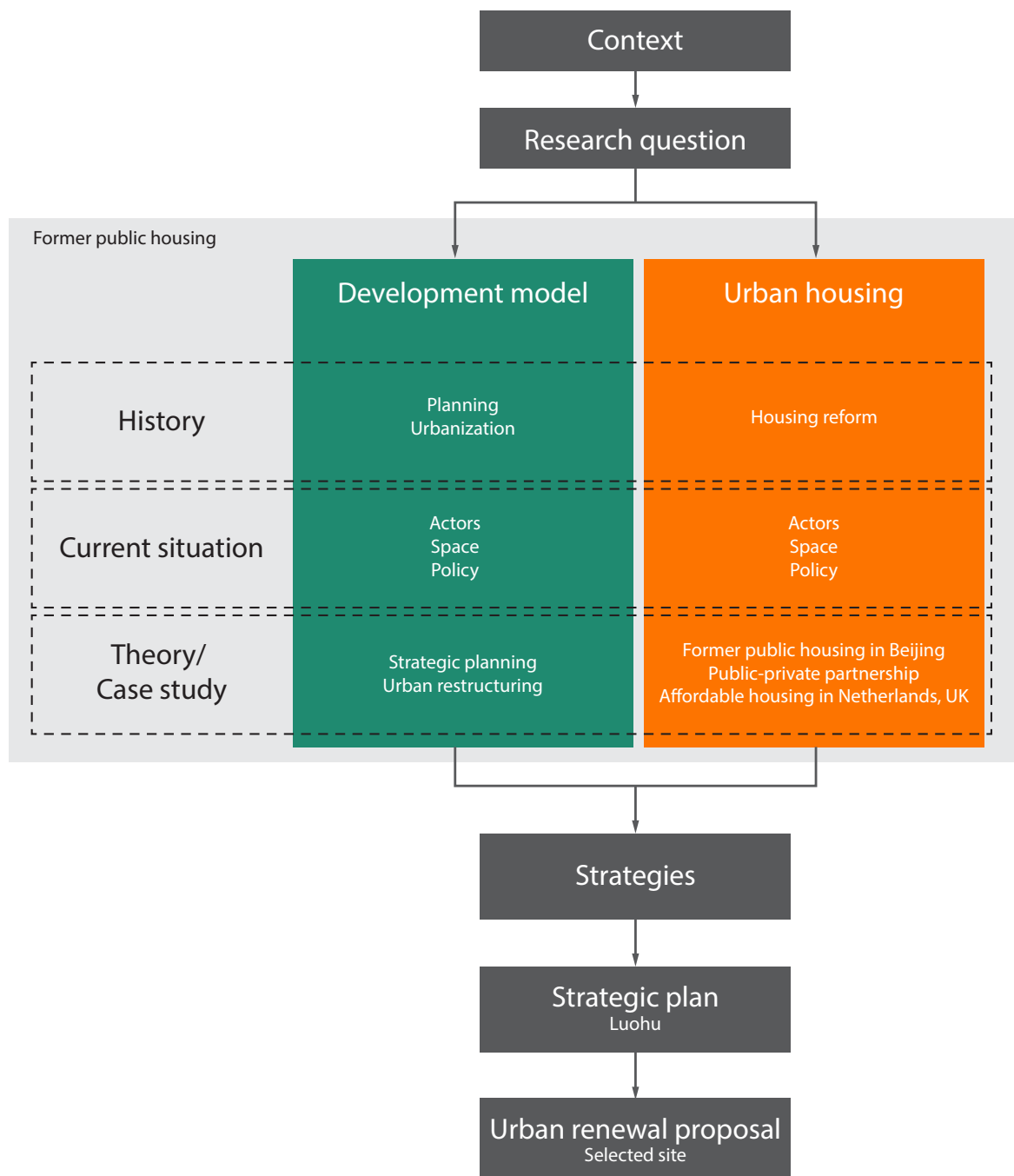
In order to form a solid foundation for further analysis and design, it is necessary to review prevailing theories that are relevant to the project. The project involves two problem fields: development model and urban housing. To better understand the development model, the nature of strategic planning needs investigating. According to Pasty (2006), the reason that strategic planning becomes popular results from the necessity of the simplification involved in arriving at some kind of perspectival synthesis on which to base collective action. It is necessary to recognise the relational complexity of urban and regional dynamics, territorially-focused governance processes as well as a relational understanding (Healey, 2006). When it comes to the topic of socio-spatial segregation, Helen (2003) stated that involuntary segregation is bad. The goal of urban restructuring, which aims at resolving segregation, is for the society in general. It does help when people have wide choice to move and freedom to stay and the living condition of low-income group remaining in reconstructed area is improved (Kruythoff, 2003).

Regarding urban housing problem, existing research about Chinese former public housing , such as Xiaoxi (2013), will contribute to the thesis. Among the practice of constructing affordable housing throughout the world, public-private partnership emerges as a possible solution to the on-going urban housing problem. There has already been a lot of discussion about the dynamics of public-private partnership policy in various countries and regions. There are some key criteria of public-private partnership in facilitating provision of affordable housing. First, 'Housing ethics' are organizing principles (or paradigms) that have shaped the whole range of housing issues (Iglesias, 2008) and form the basis of public-private partnership policy. Second, proper incentives propel private sector into the partnership. Third, public sector should not lose the social commitment and be a moderator (Sengupta, 2006) balancing public and private interest. The above criteria provide reference for a feasible model to facilitate affordable housing provision in China.



4.2 Methodology

The research will be developed following two lines. Development model mainly investigates how spatial planning and 'Danwei' housing interact with each other. The line of urban housing is concerned with the problem within 'Danwei' housing. To better understand Danwei housing in China, not only I will do literature review and case study, but also analyse the history and current situation of former public housing.



History

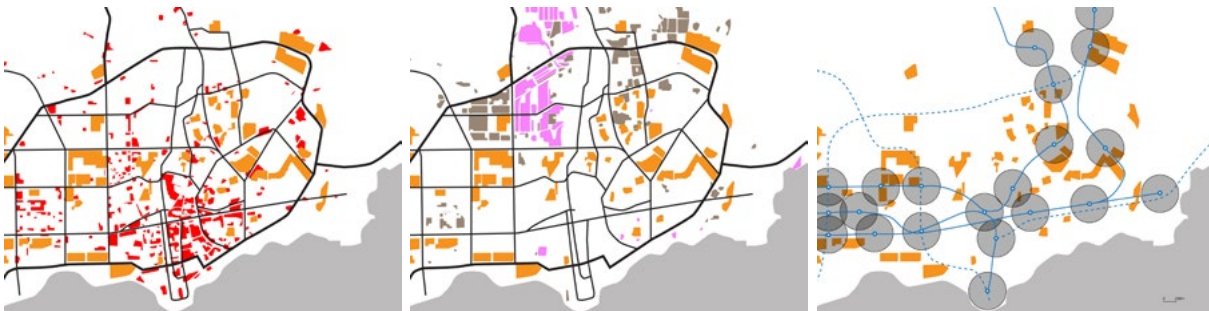
Historical analysis aims to understand the spatial transformation that took place after the founding of People's Republic of China. Because of the adoption of socialism, Chinese urban development followed a way that is quite different with western world. The dual land system has a great impact on both the past and future urban development in Chinese cities. In the housing sector, housing reform is the most significant transition. Development model and housing reform are the two main topics in this section.

Current situation

This section helps to comprehend the socio-spatial condition on district scale and neighbourhood scale. In terms of the line of development model, the challenge that Luohu district is facing will first be analysed. After that goals and vision for the district will be presented. In the line of urban housing, observation from site visit will build up a full picture of the 'Danwei' housing neighbourhood.

Case study /theory

By reviewing existing affordable housing practice and theories such as strategic planning, urban restructuring and public-private partnership, this section provides reference for possible solution to current problems and challenge.



Mappings show the relation between urban functions, infrastructure and 'Danwei' housing



Mappings of 'Danwei' housing neighbourhoods. The left one shows an informal shopping street is emerging.

5 END PRODUCT

The end product will be strategies how the former public housing can be developed. On the district scale, there will be a strategic plan about how the government can think of and rehabilitate the former public housing. On the local scale, a renewal proposal for selected neighbourhood will be presented.



District scale



Neighbourhood scale

6 RELEVANCE

Social relevance

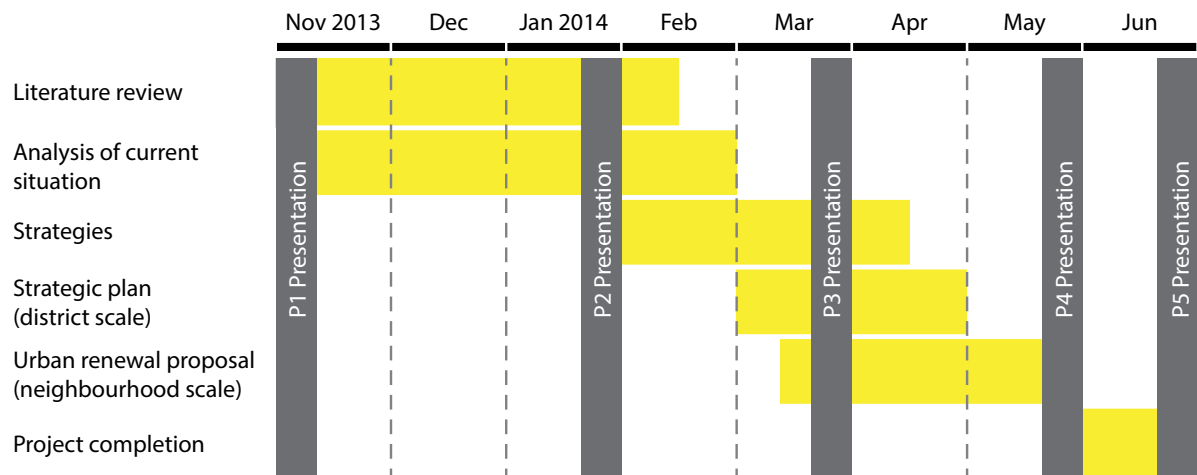
First of all, as the land price continues rising, there is greater demand in affordable housing. Though the Shenzhen government has provided different types of affordable housing for different social groups, the official affordable housing policy doesn't resolve housing problem well because of remote location and lack of public facilities. The project suggests a more effective strategy to satisfy the growing need for affordable housing. Second, the conflict in the redevelopment process and the inequality caused by the interest-driven development gain a lot of social concern. These two issues are considered as the obstruction for constructing a 'harmonious society', which is a main task of the authorities. The project intends to provide an alternative developing method that produces less conflict and inequality.

Scientific relevance

There are already some research about 'Danwei' housing neighbourhood, but not many discussions focus on regeneration. Moreover, the recent Chinese renewal practice emphasizes economic benefits and enhancement of urban landscape. Social wellbeing lacks enough concern during the transforming period. The project explores the possibility of urban policy to balance effectiveness and equity in the time that is dominated by neoliberalism.

Some unique agglomerations like urban village are quite well-known and gained a lot of attention, but 'Danwei' housing as a spatial concept does not receive enough concern considering its quantity. The renewal of this agglomeration will have great impact on future Chinese urban development. The project will not only contribute to the reality of Shenzhen but also provoke discussion on the nature of 'Danwei' housing.

7 TIME SCHEDULE



8 LITERATURE

- ABDUL-AZIZ, A.-R. & JAHN KASSIM, P. 2011. Objectives, success and failure factors of housing public-private partnerships in Malaysia. *Habitat International*, 35, 150-157.
- AEDES. 2013. Dutch social housing in a nutshell.
- AKINTOYE, A., BECK, M. & HARDCASTLE, C. 2008. *Public-Private Partnerships: Managing Risks and Opportunities*, Wiley.
- CHEN, Y. Z., MIN 2012. CRITICAL REVIEW AND REFLECTIONS ON URBAN HOUSING SYSTEM REFORM AND POLICY CONTROL IN CHINA: BASED ON COMPREHENSIVE PERSPECTIVE OF ECONOMIC, SOCIAL AND SPATIAL DEVELOPMENT. *City Planning Review*, 12, 19-27.
- DAVIDSON, N. M. & MALLOY, R. P. 2009. *Affordable housing and public-private partnerships*, Ashgate Publishing.
- DOLATA, R. 2008. Social housing in the Netherlands. *Topics in Urbanism: Innovative Housing & Urbanism in the Netherlands*.
- DU, J. & FENG, C. 2010. Experience Reference of Sandwich Class Housing Scheme of Hong Kong. *Urban Studies*, 17, 121-126.
- GOVERNMENT, S. M. P. S. 2006. The 11th five-year plan of Shenzhen economy and society development.
- GRIFFIN, L. 2003. Creating Affordable Housing in Toronto Using Public-Private Partnerships.
- HARDCASTLE, C. & BOOTHROYD, K. 2003. Risks overview in public-private partnership. *Public-private partnerships: managing risks and opportunities*, 31-57.
- HEALEY, P. 2006. Relational complexity and the imaginative power of strategic spatial planning 1. *European Planning Studies*, 14, 525-546.
- HOLLANDER, G. 2011. *Regular repricing spells the end for loans of more than 25 years, End of the line for long-term lending* [Online]. Available: <http://www.insidehousing.co.uk/finance/end-of-the-line-for-long-term-lending/6518946.article> [Accessed 6th Jan 2014].
- HUD. 2010. *Affordable Housing* [Online]. Available: http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/ [Accessed 22nd Dec 2013].
- HUI, E. & WONG, F. K. 2006. Affordable housing in China. *Habitat International*, 30, 275-276.
- HUI, X. 2013. Housing, Urban Renewal and Socio-Spatial Integration. A Study on Rehabilitating the Former Socialistic Public Housing Areas in Beijing. *Architecture and the Built Environment*, 2.
- IGLESIAS, T. 2008. Our Pluralist Housing Ethics and Public-Private Partnerships for Affordable Housing.
- KRUYTHOFF, H. 2003. DUTCH URBAN RESTRUCTURING POLICY IN ACTION AGAINST SOCIO-SPATIAL SEGREGATION: SENSE OR NONSENSE? *European journal of housing policy*, 3, 193-215.

- LAWSON, J., BERRY, M., MILLIGAN, V. & YATES, J. 2009. Facilitating investment in affordable housing—towards an Australian model. *Housing Finance International*, 24, 18-26.
- LI, B. 2002. The Theory of Social Exclusion and the Reformation of the Housing System in Cities. *SOCIAL SCIENCE RESEARCH*, 3, 106-110.
- LIU, T. 2013. 2012深圳GDP仍居内地第四 人均可支配收入破4万元 [Online]. Available: http://www.sznews.com/news/content/2013-01/25/content_7649256_2.htm [Accessed 13th, Jan 2012].
- PENG, R. & WHEATON, W. C. 1993. *Effects of restrictive land supply on housing in Hong Kong: an econometric analysis*, Joint Center for Housing Studies, Harvard University.
- ROBERTS, P. & SYKES, H. 1999. *Urban regeneration: a handbook*, Sage.
- SASSEN, S. 2001. *The Global City: New York, London, Tokio*, Princeton University Press.
- SENGUPTA, U. 2006. Government intervention and public–private partnerships in housing delivery in Kolkata. *Habitat International*, 30, 448-461.
- STOCKMAN, P. K. 1992. Anti-snob zoning in Massachusetts: Assessing one attempt at opening the suburbs to affordable housing. *Virginia Law Review*, 535-580.
- SUSILAWATI, C. & ARMITAGE, L. 2004. Do public private partnerships facilitate affordable housing outcome in Queensland?
- TAN, V. 2012. PUBLIC-PRIVATE PARTNERSHIP.
- WIEWEL, W., GAFFIKIN, F. & MORRISSEY, M. 2000. Community-university partnerships for affordable housing. *Cityscape*, 27-45.
- WYLDE, K. & SCHILL, M. H. 1999. *The contribution of public-private partnerships to New York's assisted housing industry*, State University of New York Press Albany, NY.
- ZHANG, L., ZHAO, S. X. & TIAN, J. 2003. Self-help in housing and chengzhongcun in China's urbanization. *International Journal of Urban and Regional Research*, 27, 912-937.

Public-private Partnership in Facilitating Provision of Affordable Housing: Several key criteria

Course AR3U022, Theory of Urbanism
MSc track Urbanism, Delft University of Technology

Haotian Lin

4241479 _ H.Lin-5@student.tudelft.nl
Studio Complex Cities

January, 2014
13th Graduation Lab Urbanism Conference

Abstract – Among the practice of constructing affordable housing throughout the world, public-private partnership emerges as a possible solution to the on-going urban housing problem. There has already been a lot of discussion about the dynamics of public-private partnership policy in various countries and regions. By reviewing existing experience and theories, the paper briefly introduces some key criteria of public-private partnership in facilitating provision of affordable housing. First, ‘Housing ethics’ are organizing principles (or paradigms) that have shaped the whole range of housing issues (Iglesias, 2008) and form the basis of public-private partnership policy. Second, proper incentives propel private sector into the partnership. Third, public sector should not lose the social commitment and be a moderator (Sengupta, 2006) balancing public and private interest. The paper provides reference for a feasible model to facilitate affordable housing provision in China, which is the main purpose of my thesis.

Key words - public-private partnership, affordable housing, housing ethic, incentive, social commitment

1 Introduction

Affordable housing has been a great concern in many countries for a long time. In US, Department of Housing Urban Development (HUD) administers several programs designed to address the nationwide shortage in affordable housing, bring federal resources directly to the state and local level for use in the development of affordable housing units, or

to assist income-eligible households in purchasing, rehabilitating, or renting safe and decent housing (HUD, 2010). British local authorities operated council housing, a form of public housing designated for working class. A policy change of encouraging home ownership transferred the responsibility of developing new British social housing to private housing associations. In Netherlands, non-profit social housing organisations assume responsibility

for affordable housing and account for some sixty per cent of the construction of new dwellings in the Netherlands and invest in areas such as care, student housing and sustainability (Aedes, 2013). These affordable housing programmes are operated by different types of actors through different mechanisms, but they all aim to guarantee the housing for those who are not able to afford adequate housing in free market.

Regarding the current practice, there is an increasing tendency that private partners are involved in provision of affordable housing, which is originally considered as a public responsibility. In countries such as US, UK, Malaysia, India, Australia (Abdul-Aziz and Jahn Kassim, 2011), public-private partnership plays an important role in solving urban housing problem. It is a possible solution to a sustainable model for providing affordable housing.

The following sections will briefly introduce the key criteria for facilitating affordable housing with public-private partnership. The discussion starts with the definition of public-private partnership. Then it argues that housing ethic of the public sector links to the form of public-private partnership. After that, it indicates that creating proper incentives for private sector and maintaining the social commitment contribute to successful public-private partnerships in provision of affordable housing. The paper helps to establish a feasible model to facilitate affordable housing provision in China, which is the main purpose of my thesis.

2 Definition of public-private partnership

Public-private partnerships are seen in a wide variety of settings and in heterogeneous forms (Austin & McCaffrey, 2002). Generally speaking, public-private partnerships bring public and private sector together in long term partnerships for mutual benefits (Akintoye et al., 2008). They are usually adopted in a government-sponsored scheme which introduce private sector to finance or operate the provision of services to the public or the

delivery of social infrastructure assets (Tan, 2012).

The reason why public-private partnership is drawing more attention in affordable housing issue is that government as the direct provider of urban housing has been questioned (Sengupta, 2006). Especially in developing countries, the growing demands for urban housing claim a huge amount of housing, which involves large investment. Government or private developers alone can hardly manage the enormous task. From the point of view of public sector, cooperation with private sector indicates some benefits. Private partners can bring more expertise and efficiencies to the certain service or facilities traditionally provided by public sector. Partnerships can share risk and release government's financing burden by introducing investment from private sector. When it comes to the domain concerning social security, public-private partnership is a solution which balances efficiency and social just.

3 Housing ethic

'Housing ethics' are organizing principles (or paradigms) that have shaped the whole range of housing issues (from financing, production, and siting to the use of housing) at a variety of levels (Iglesias, 2008). According to Tim (2008), the five housing ethics include: (1) housing as an economic good; (2) housing as home; (3) housing as a human right; (4) housing as providing social order; and (5) housing as one land use in a functioning system. The goal of affordable housing is driven by the pluralist housing ethic, which directs policy and social discussion regarding the issue of housing (Davidson and Malloy, 2009). Therefore, the goal of affordable housing decides the details of the programme, for example, the target social group, design of the housing and participants. The housing programme would be carried out through certain form of public-private partnerships, which fit in certain social context.

In the United States, housing is made affordable to people with limited means - generally those making significantly less than the median income for their area (Dolata, 2008). Housing tends to act as commodity and

affordable housing in US is a kind of minimum security. The reason for this response to housing needs, to put it quite simply, is that housing in the United States is not considered a basic right, and is not guaranteed by the government (Dolata, 2008). Such housing ethic influences how public and private sectors cooperate. US federal support for private sector development of affordable housing began in 1977, which was intended to promote private development rather than city planning or social justice concerns. After that, the US emergence of public-private partnerships began on east coast to cope with financial crises. For instance, in New York city, the housing authorities provided funds, and private developers essentially planned and developed projects on their own, including planning revenue, development, and construction (Wylde and Schill, 1999). Private sector was the primary or even the sole actor while public sector only support with subsidy without much regulatory intervention. Some attempts to build affordable housing in US cities was failed because local zoning laws are structured in such a way as to prevent building affordable housing within the town (Stockman, 1992).

The Netherlands treat affordable housing in a quite different way that housing is necessity for everybody. Nowadays, social housing is a significant part of the whole Dutch housing market. Almost 35 per cent of the entire housing stock is the rented sector, 80 per cent of which is classified as social rented housing (Aedes, 2013). In 1902, Housing Act recognized housing as a shared national responsibility for the first time. The Act permitted building associations established solely for the purpose of developing social housing. These housing associations were then able to qualify for financing from the state (Aedes, 2013). Also, the Act required large and growing municipalities to establish extension plan (Aedes, 2013). In the early history of Dutch affordable housing, public sector actively intervenes in provision of affordable housing by means of subsidizing housing associations, qualifying their partners and urban planning.

4 Incentives for private sectors

The public service or facilities are originally the responsibility of public sector. From the point

of view of government, introduction of private partners brings a lot of benefits. However, the private sector needs adequate incentives for them to participate in the partnership, such as privilege in funding, design and policy. Different types of organisation are driven by different incentives. Private profit-oriented organisations search for economic profit or financial support. Both profit-oriented and non-profit organisations are more inclined to be involved in the partnership with convenient legislation and flexible planning regulation.

Funding is the central issue in partnerships. It is the main driver of profit-oriented organisations and the basis of an affordable housing programme. There are several types of funding or financial support that public sector can provide for private partners. One of the most common ones is direct subsidy from government. A second possible way is a cross-subsidy approach. In Kolkata, India, it is the integral component of public-private partnerships, which is introduced first as an incentive for private sector companies to invest in housing. The price of low-income housing is prescribed by government while the price of the high income housing can be set at the discretion of the private partners to capture the profit (Sengupta, 2006). Tax and fee discount is also a useful selection for financial support. In Queensland, Australia, the community housing organisations with privileged tax status manage affordable housing more cost effectively than either government agencies or the private sector (Susilawati and Armitage, 2004). Better financial performance can stimulate their willing to join the partnerships.

Regarding non-profit organisations, such as housing associations in UK and Netherlands, they do not need financial return as an attraction to participate in provision of affordable housing, but they need a sustainable and solid financial basis which supports the provision of proper housing and the maintenance of affordable neighbourhood. Rent, sales and sometimes subsidy from the state consist of their revenue, which supports new construction. The new construction generates more rent and sales. This is their financial circle. Furthermore, it is necessary to have extra financing methods and guarantee

system facilitating their business. In UK, besides bank loans, developing associations are increasingly turning to corporate bonds to raise funds for expansion (Hollander, 2011). Housing associations in Netherlands have a three-layer security scheme to guarantee their loans (Aedes, 2013).

Design flexibility can be a good incentive for private partners. Local government in Queensland, Australia has been involved in affordable housing initiatives by providing relaxation of the planning regulation for affordable housing projects. On the other hand, the developers who gain higher density bonuses because of rezoning have to pay contributions for affordable housing (Susilawati and Armitage, 2004). In Canada, public agencies improve private partners' incentives by permitting design flexibility in terms of, for example, permitted height, density, site configuration and open space, in addition to streamlining the approval process (Griffin, 2003). Public sector can also improve attraction by increasing land supply. Restricted land supply cause high housing price (Peng and Wheaton, 1993). Generally, to guarantee the affordability, government usually prescribes a certain housing price range. However, in the condition of high land price, private developers tend to focus on constructing high-end housing. High housing price does not lower house output (Peng and Wheaton, 1993), but definitely the amount of affordable housing for low or middle income group would decrease. Government's assistance can greatly improve private incentives to build affordable housing. In India, the State government is tackling the land issue by introducing multiple new town projects in Kolkata. Forty per cent of the total residential land in New Kolkata has been reserved for large scale residential use and the remaining sixty per cent of the land is being released to individuals and cooperatives as an incentive to sectors outside the main public-private partnership (Sengupta, 2006). However, this strategy can only be applied in area where there is a huge demand for housing. Besides urban expansion, urban renewal can increase land supply for affordable housing development in highly developed area.

Simplification of regulatory procedure provides incentives to encourage private

interest in affordable housing. Being the public sector in public-private partnership, government plays a role as supervision and regulation to ensure building quality. Sometimes it is time-consuming and troublesome for private developers to finish the regulatory process. For example, to develop a property in Kolkata, builders require nearly forty clearances from at least fifteen departments such as sewerage, water, land survey, land revenue, fire and pollution (Sengupta, 2006). Public sector can improve market performance by minimising procedures such as obtaining permit, clearances and registration of property.

5 Social commitment

In terms of social commitment, public sector should be a moderator (Sengupta, 2006) balancing public and private interest. The public sector is responsible for both economic development and social just. So, in the following discussion, social commitment covers two aspects. First, the task of promoting economy requires a fair environment for partnerships between public sector and private developers. Second, government's burden of social just requires including more social participation. While profit-oriented partners concern more about financial return, public sector holds the social commitment to the social vulnerable group.

Public and private partners do not share equal benefits, risk and power. Risk sharing among the government, utility, lenders and developers is often at the heart of most reservations or debate about private sector projects (Akintoye et al., 2008). As a result, transparency in the partnerships is very important to reduce the potential conflict in partnerships, but it is often found to be lacking (Susilawati and Armitage, 2004). Partnerships could be challenged by lack of adherence to the contractual arrangement (Hardcastle and Boothroyd, 2003) and lack of clarification of task. Partnerships without understanding and responsibility arrangement not only threat the success of housing programme but also harm private interest.

Public sector needs to encourage social participation to realise social commitment.

Although real estate developers are the most common private players in public-private partnership, they are not the only one. Non-profit organisations, individual households and voluntary organisations are potential partners. Expansion of partnerships and inclusion of the voice of low-income communities in the decision making process of the partnership is important to ensure that partnership arrangements do not lose their social commitment to the vulnerable sections of society (Sengupta, 2006). Partnership can extend further. For example, a growing number of university-community partnerships have developed in the cities with universities. University of Illinois at Chicago played a key role in a citywide affordable housing campaign in Chicago. It provided housing and facilities not only for its staff and students but also inhabitant in nearby neighbourhood (Wiewel et al., 2000).

Lack of financial aid becomes a constraint on home acquisition for certain social groups. Especially in developing country, absence of any mortgage finance facility for potential low income buyers linked to the public-private partnership schemes runs contrary to the partnership's goal of availing affordable housing to those in need (Sengupta, 2006). Not only have those who are struggling with livelihood but also higher income group undergone housing problem. Lower-middle income group, or sandwich class, refers to those who are neither qualified to buy or rent social housing nor can afford private-sector housing because they exceed the income limitation for applying social housing. Their housing problem has provoked widespread discussion among countries or region, where the gap between income, housing price and social housing income limitation is rapidly enlarging, such as mainland China and Hong Kong (Du and Feng, 2010). In 1990s, in order to help sandwich class, Hong Kong Housing Society proposed *Sandwich Class Housing Scheme*, which provided housing with a price higher than other types of public housing and lower than private sector housing. It was a short term scheme targeting at a small social group and was suspended as soon as the housing stock changed. In this way, the housing agency could minimise the negative effect to the private sector housing stock (Du and Feng,

2010). Therefore, flexibility is the key principle to solving housing problem for specific social minority group.

6 Conclusions

By reviewing various experience of public-private partnership in provision of affordable housing, one can notice that public-private partnership has different forms. Housing ethic decides the goal of providing affordable housing. As a result, public and private sector develop different forms of partnership, which fit in different social contexts.

The success of public-private partnership relies on some key elements. First, the public sector has to create proper incentives for private partners through subsidy, tax discount, design flexibility and simplified regulatory procedure. However, the feasibility of those strategies depends on local situation and types of organisation. Second, the public sector holds the responsibility for both economic development and social just. Transparency in partnership between public sector and private developers helps to create a better business environment. Public sector needs to encourage social participation to realise social commitment. To accommodate those in need, the public sector should provide proper aid for marginal social groups, such as the low-income and lower-middle income group. Emerging new private partners, like universities, can also become potential power in improving affordability.

In China, where urban housing used to be provided by state, government decided to settle the growing urban housing demand through marketization of housing stock. However, the consequent rocketing housing price forces the authorities to consider affordability again. This is a good example that neither public nor private sector can solve urban housing problem alone. Public-private partnership would be a possible solution to this case. Since public-private partnership can be seen in various setting, there should not be only one successful model. Moreover, it is impossible for this paper to depict a full picture of that and propose a scheme of the partnerships. For government, defining the goal of affordable policy constructs the basis of

partnership. After that, in order to facilitate the provision of affordable housing, creating proper incentives and maintaining social commitment are necessary for cooperation with private sector.

Bibliography

- ABDUL-AZIZ, A.-R. & JAHN KASSIM, P. 2011. Objectives, success and failure factors of housing public-private partnerships in Malaysia. *Habitat International*, 35, 150-157.
- AEDES. 2013. Dutch social housing in a nutshell.
- AKINTOYE, A., BECK, M. & HARDCASTLE, C. 2008. *Public-Private Partnerships: Managing Risks and Opportunities*, Wiley.
- DAVIDSON, N. M. & MALLOY, R. P. 2009. *Affordable housing and public-private partnerships*, Ashgate Publishing.
- DOLATA, R. 2008. Social housing in the Netherlands. *Topics in Urbanism: Innovative Housing & Urbanism in the Netherlands*.
- DU, J. & FENG, C. 2010. Experience Reference of Sandwich Class Housing Scheme of Hong Kong. *Urban Studies*, 17, 121-126.
- GRIFFIN, L. 2003. Creating Affordable Housing in Toronto Using Public-Private Partnerships.
- HARDCASTLE, C. & BOOTHROYD, K. 2003. Risks overview in public-private partnership. *Public-private partnerships: managing risks and opportunities*, 31-57.
- HOLLANDER, G. 2011. *Regular repricing spells the end for loans of more than 25 years, End of the line for long-term lending* [Online]. Available: <http://www.insidehousing.co.uk/finance/end-of-the-line-for-long-term-lending/6518946.article> [Accessed 6th Jan 2014].
- HUD. 2010. *Affordable Housing* [Online]. Available: http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/ [Accessed 22nd Dec 2013].
- IGLESIAS, T. 2008. Our Pluralist Housing Ethics and Public-Private Partnerships for Affordable Housing.
- PENG, R. & WHEATON, W. C. 1993. *Effects of restrictive land supply on housing in Hong Kong: an econometric analysis*, Joint Center for Housing Studies, Harvard University.
- SENGUPTA, U. 2006. Government intervention and public-private partnerships in housing delivery in Kolkata. *Habitat International*, 30, 448-461.
- STOCKMAN, P. K. 1992. Anti-snob zoning in Massachusetts: Assessing one attempt at opening the suburbs to affordable housing. *Virginia Law Review*, 535-580.
- SUSILAWATI, C. & ARMITAGE, L. 2004. Do public private partnerships facilitate affordable housing outcome in Queensland?
- TAN, V. 2012. PUBLIC-PRIVATE PARTNERSHIP.
- WIEWEL, W., GAFFIKIN, F. & MORRISSEY, M. 2000. Community-university partnerships for affordable housing. *Cityscape*, 27-45.
- WYLDE, K. & SCHILL, M. H. 1999. *The contribution of public-private partnerships to New York's assisted housing industry*, State University of New York Press Albany, NY.

Text for Graduation orientation

1. Abstract of your research in 300 words

Evolving 'Danwei' housing

An alternative way to develop former public housing in Shenzhen, China

Nowadays, many developed Chinese cities like Shenzhen are experiencing intense spatial transformation. Downgrading neighbourhoods are being replaced by high-end housing, shopping malls and office in order to reshape urban landscape and promote economic growth. 'Danwei' housing is one of the redevelopment hot spots. However, this kind of land-based development not only creates social conflict but also reduces the affordability for the social weakness groups. The problem is that land-based development model focuses on improve the competitiveness of the city as a whole without enough concern on local interest. Moreover, the contradiction between the centralized development model and the fragmentation of ownership in 'Danwei' housing neighbourhood leads to the difficulties in development. The research goal is to balance the local and public interest, and facilitate the provision of affordable housing in Shenzhen. The research considers this kind of neighbourhood as strategic elements of the city and aims to benefit both the city and the social weakness groups by regenerating them. The research will be developed according to two lines. First, development model mainly investigates how spatial planning and 'Danwei' housing interact with each other. Second, the line of urban housing is concerned with the socio-spatial problems within 'Danwei' housing neighbourhood. The expected results include a strategic plan about how the government can think of and rehabilitate the neighbourhoods on district scale, and a renewal proposal for the selected site on neighbourhood scale. The research will provide suggestions on how to satisfy the growing housing demand and improve social just in transforming Chinese cities. It will also provoke discussion on regenerating 'Danwei' housing neighbourhood, which is a unique spatial phenomenon in China.

Keywords: 'Danwei' housing, land-based development, affordable housing, strategic planning, regeneration

2. Link to research of the department

My project belongs to the theme of Metropolitan Spatial Structures. It is concerned with processes of agglomeration and regional spatial structures in the context of globalisation, in terms of economic competitiveness, environmental sustainability and social wellbeing. My project focuses on restructuring cities with strategic urban elements. To be more specific, how to regenerate the numerous downgrading neighbourhoods is the starting point. On the urban scale, these neighbourhoods have potential to benefit the economic development of the city if the problems can be tackled with integrated strategies. On the neighbourhood scale, the project aims to enhance affordability for the social weakness groups, which contributes to social wellbeing. My project is carried out on multiple scales and levels, which is also the concern of the research theme: the region is however the structure and frame in which smaller scaled structures such as neighbourhoods are contextualised and understood.

The research object of my project is a unique agglomeration in China. It provides a resource for comparative overview of and a methodological approach to metropolitan structure and performance in a different context. This relates to the research topic Networks, Agglomeration and Polycentric Metropolitan Areas: New Perspectives for improved Economic Performance.

3. One representative illustration of your graduation final product

EVOLVING 'DANWEI' HOUSING

An alternative way to develop affordable housing in Shenzhen, China

Type 3: Fringe of industrial zone

Type 2: Fringe of commercial zone

Type 1: Residential zone



End product involves two scale:

1. A strategic plan on district scale that tackles current challenges of the district: 'Danwei' housing neighbourhoods are categorized into several types which targets different inhabitants and have different regeneration strategies.
2. A renewal proposal on neighbourhood scale

Inhabitants:

Young profession

low-income migrant

Owner

Legend

- Residential zone
- Commercial zone
- Warehouse
- Industry
- Urban village
- Danwei housing
- Green
- Regional road
- Main road
- Existing metro line
- Proposed metro line
- Metro station

0 200m

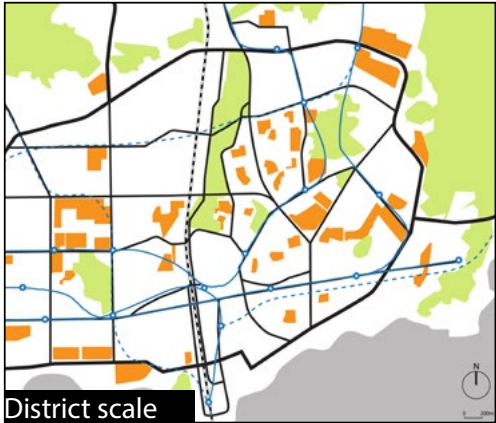
THEORETICAL FRAMEWORK

- Housing affordability does not really benefit the target group without a liveable community.
- Lack of affordability has impact on economic, social, spatial and enviromental aspects.



Development model

Urban housing



Positioning 'Danwei' housing

Crucial criteria

Renewal goal



Renewal strategy

ANALYSIS: NEIGHBOURHOOD SCALE

Boundary

- Gated: security or barrier
- Gate as a symbol: 'Feel safe', definition of territory
- Surroundings



Housing

Housing typology

- Single room
- Apartment for family

Social condition

- Approximate 600 households
- 60% for rent
- Anonymity: floating population



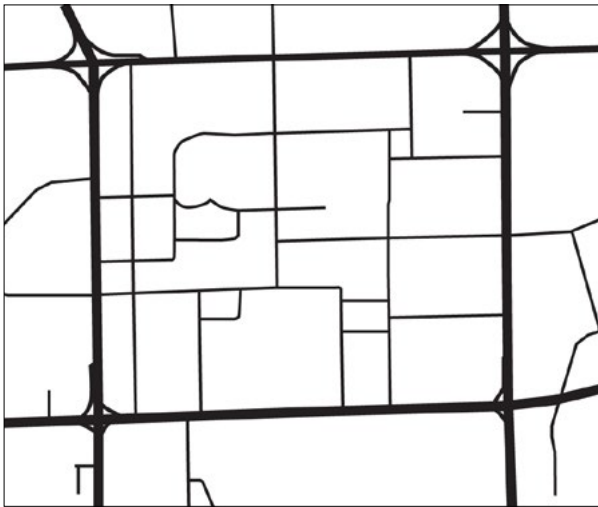
Public space

- Green: beautifying environment or preventing from sunlight?
- Privatization of public space
- Confused space: unclear definition of territory

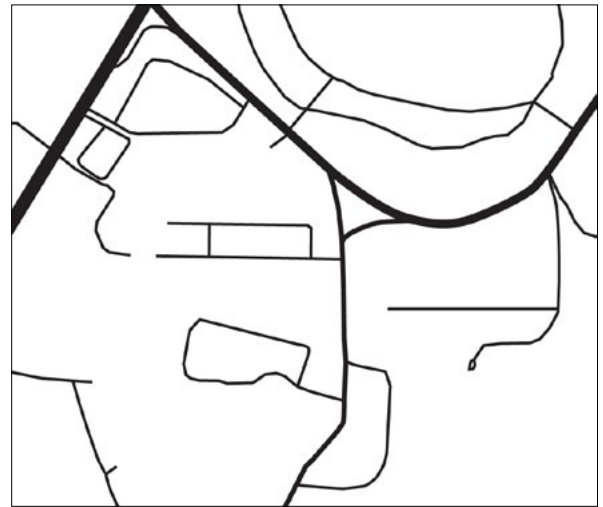


Street network

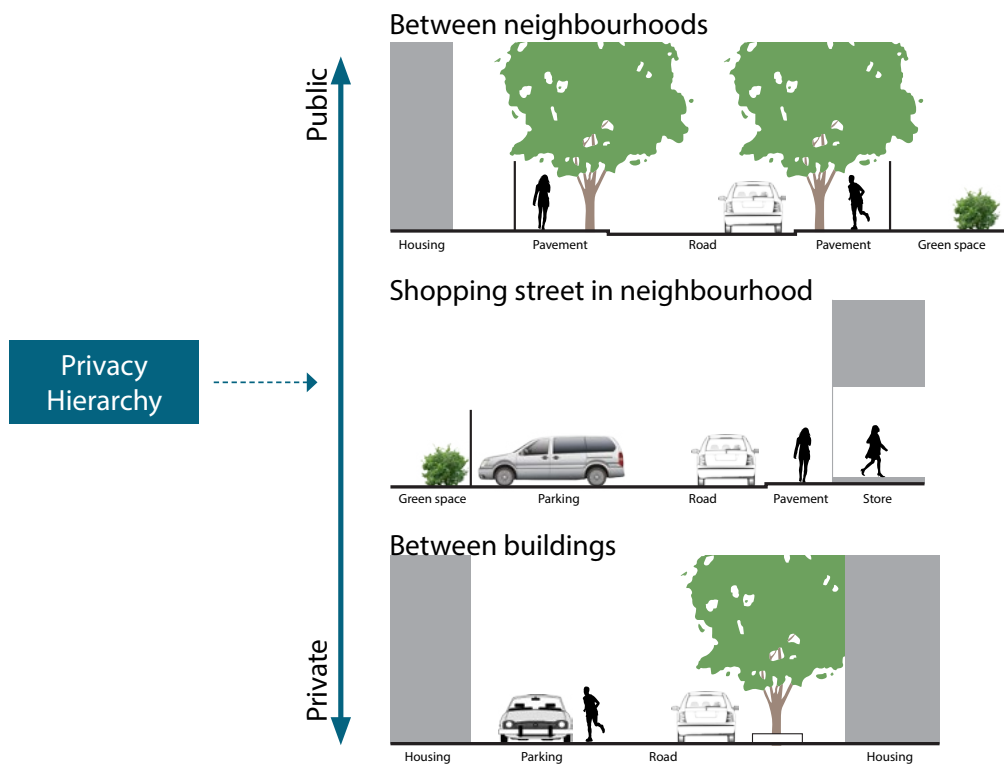
- Dead-end road
- Grid
- Neighbourhood attachment



Grid

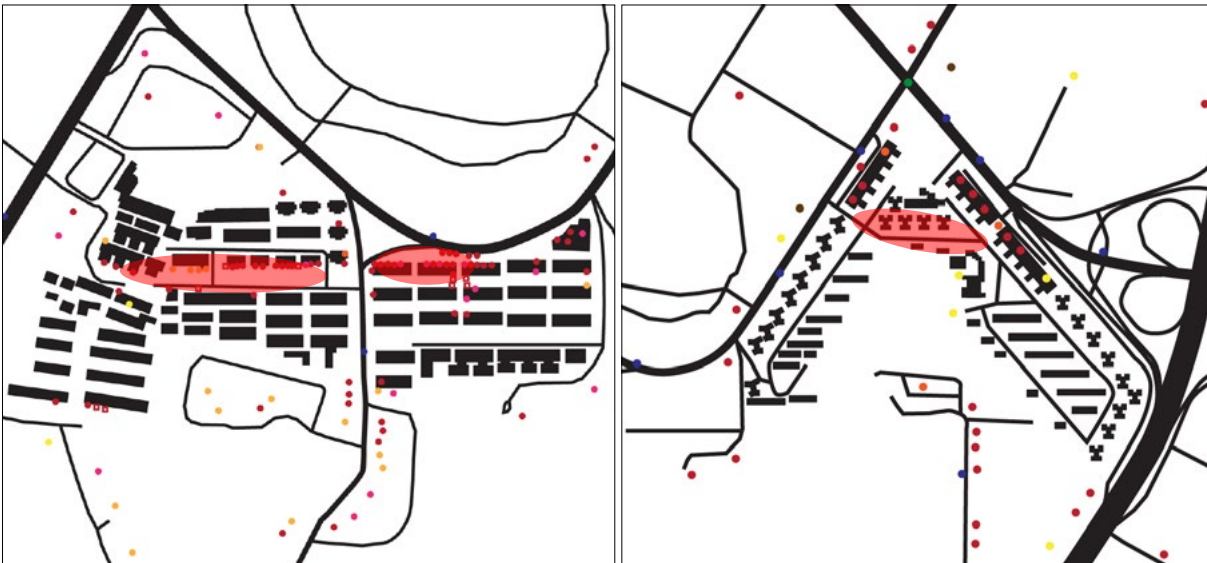


Dead-end road



shopping street

- Informal transformation
- Ground floor
- Street with less car flow
- Near the entrance of the neighbourhood

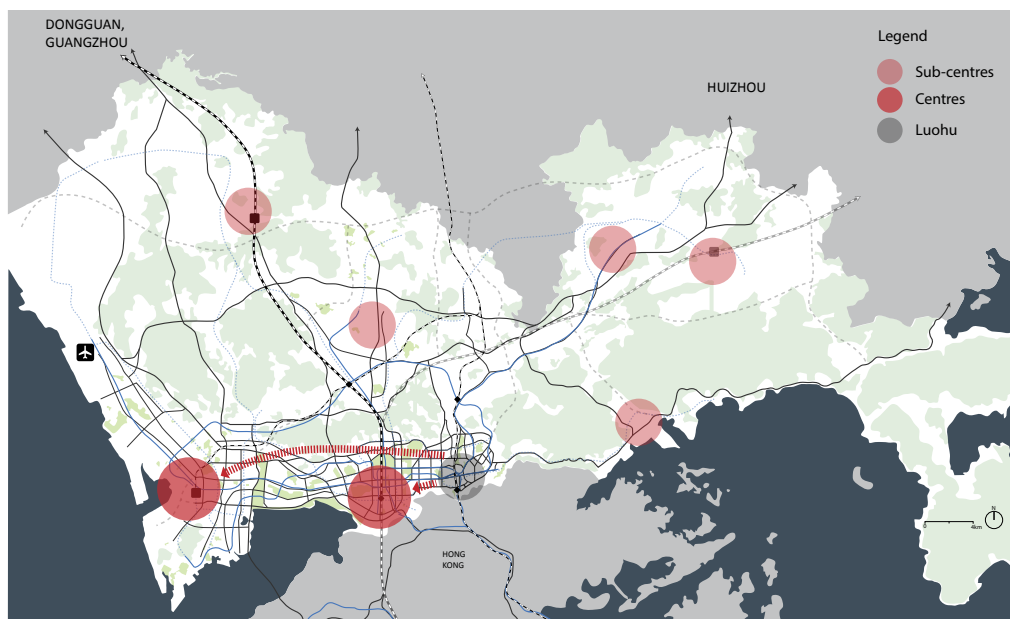


ANALYSIS: DISTRICT SCALE

Challenge

Shifting centralities

- New city centres: Futian and Qianhai
- Emerging new sub-centres



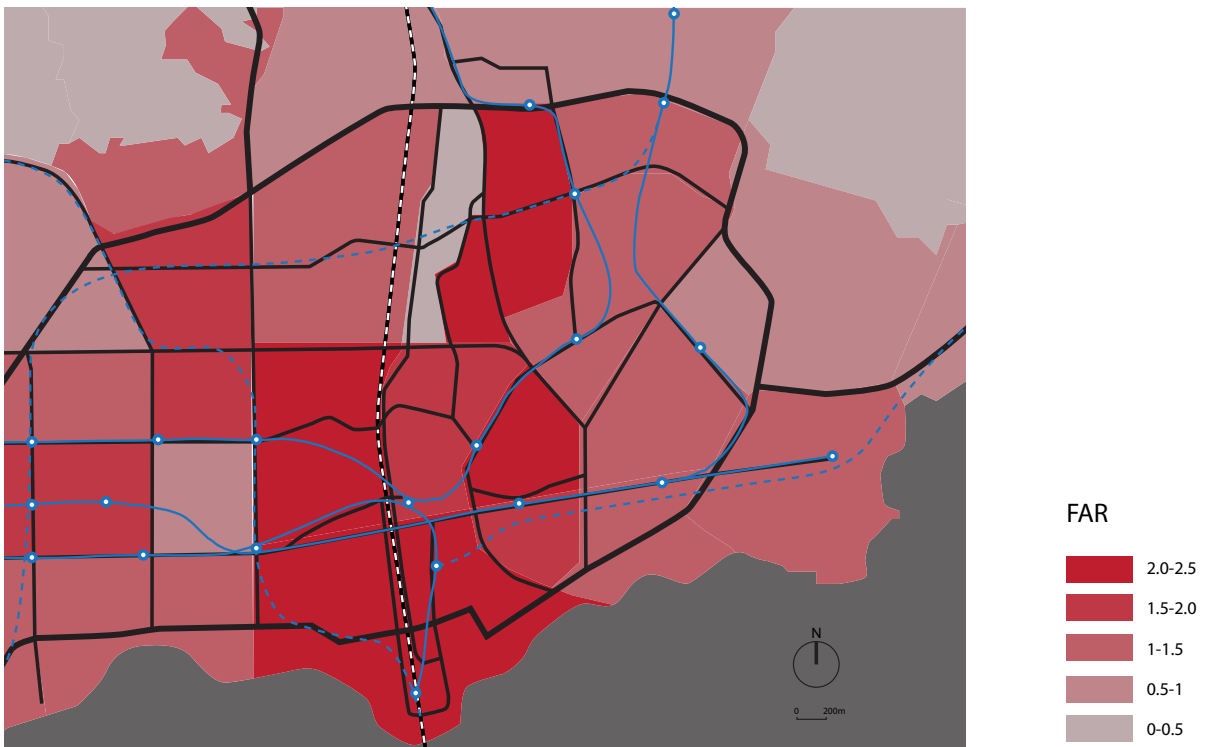
Industrial restructuring

- Manufacture is moving out
- Industrial remains
- New industries

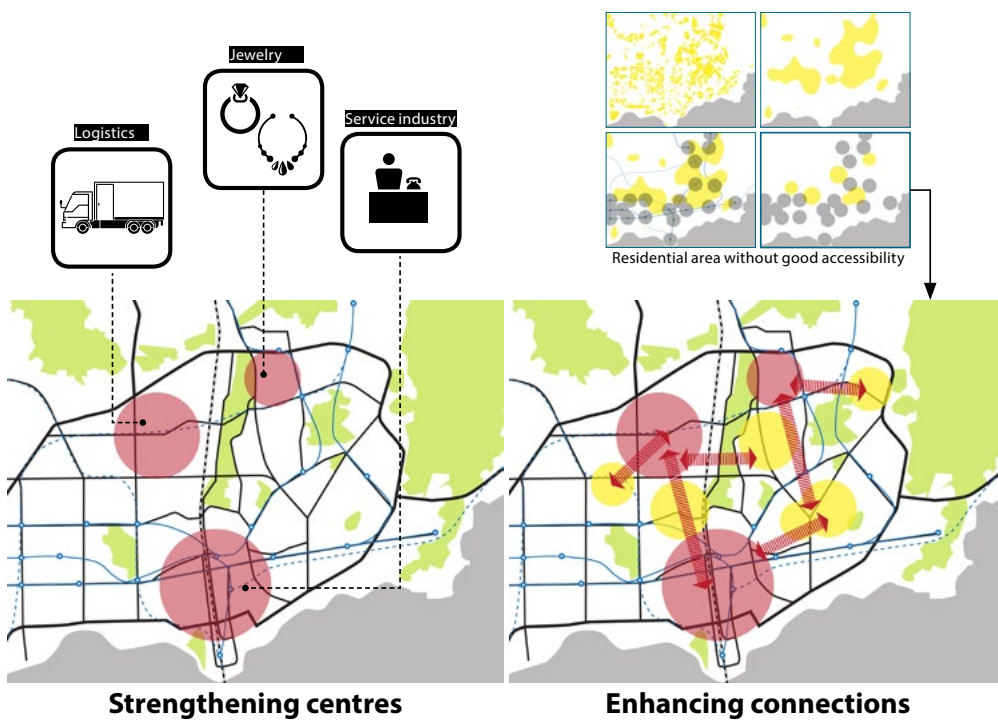


High density

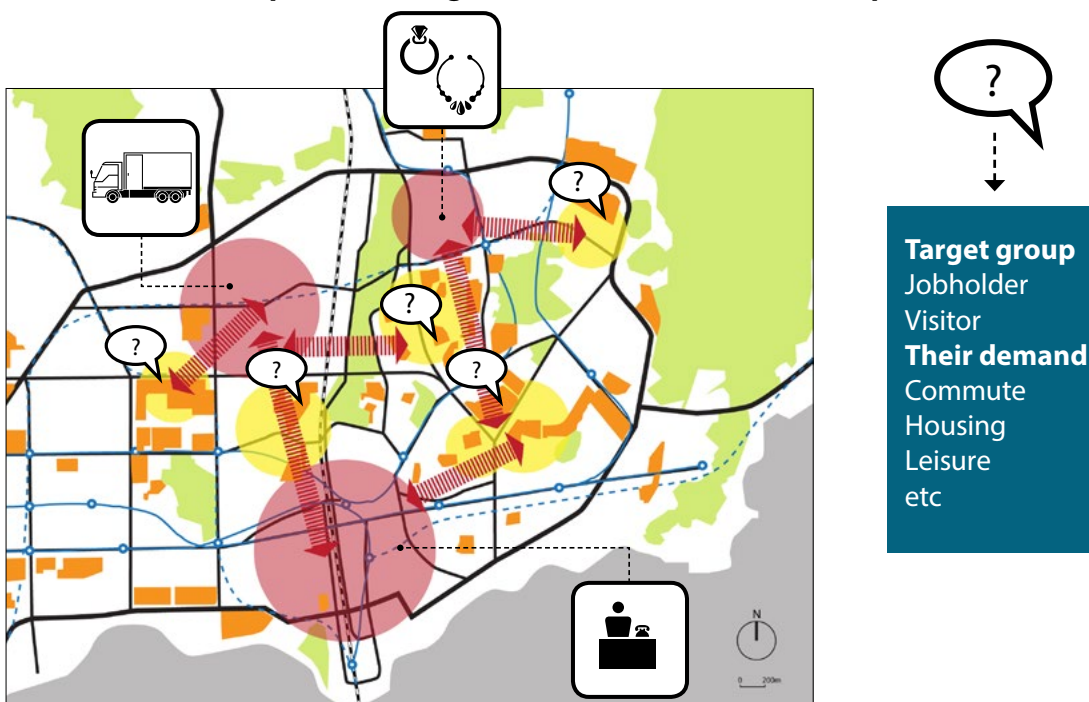
- Land shortage



Vision



How can the former public housing contribute to the urban development?



Strategy

