

APNHR Conference

Housing and Social Development: Emerging Theoretical Issues in Asia-Pacific 5-6 February 2004

Paper Proposal for Theme 4: Urban growth and housing poverty

Housing for the Urban Migrants in Guangzhou, China^{*}

Roger C K Chan
Associate Professor
Centre of Urban Planning and Environmental Management
The University of Hong Kong, Hong Kong
Pokfulam Road
Hong Kong
Email: hrxucck@hkucc.hku.hk

Abstract

This paper aims first to unveil the economic characteristics of “villages-in-cities” and to search the appropriate planning approaches and policies for better settling these migrants from the rural areas. The objectives include a study of how migrants operate in an urban context in terms of their economic and organizational behaviours. Secondly, with the assistance of a “self-help” framework, it will examine how municipal governments and planning authorities should deal with rural migrants. The ways migrants can find themselves appropriate channels to secure economic livelihood and protection of their basic needs in an environment that is greatly different from where they came from will also be investigated. The paper argued that by advocating a bottom-up development of low cost housing for migrants would be of benefits the migrants in the long run.

^{*} This paper is partially supported by research funding from the University of Hong Kong (CRCG10202606). The author would like to acknowledge the collaboration with Dr Simon Zhao at the University of Hong Kong and Professors Xu Xueqiang, Yan Xiaopei and J P Tian of the Center for Urban and Regional Study, Zhongshan University, China. Mr. Kelvin Sit Tak O and Ms Tsang Suet Kam are invaluable sources of research assistance. Any errors, however, remain mine.

1. Introduction

China, one of the developing countries in the world, has most of her population living in the rural areas. Similar to other developing countries transiting to a modern society, many of the ‘surpluses’ labours of rural areas, namely ‘actual migrants’ of cities, moved to urban areas (Cai, 1990; Wei, 1995; Huang, 1998) in the process of urbanization. The movement has changed from “*Litu Bu Lixiang* (moving away from the farming practice but not the countryside)” to “*Litu You Lixiang* (leave the farming sector and also the countryside)” for their pursuit for economic betterment in the 1990s (Fei, 1985; Fei, 1986; Zhu, 1996; Yeh and Li, 1997; Yeh and Li, 1999; Wong and Zhao, 1999a, Wong and Zhao, 1999b; Kirkby and Zhao, 1999). Because of the actual migrants, unplanned settlements like “Zhejiang Village” were found in many Chinese cities (Xiang, 1993; Wang, 1995a; Ma, 1999), despite the serious impacts imposed on social and urban development. It is believed that these unplanned settlements would become a serious problem for many Chinese cities. To solve this housing problem of the low-income group, self-help housing was chosen as the way out in many countries around the world (Pugh 1997), especially in developing countries, as many scholars have suggested [Burgess (1977, 1984), Mathey (1992), Turner (1963, 1976, 1982), Turner and Fichter, 1972 Ward (1982)].

At present, “policy package” was adopted in many self-help projects. Under the major research area of the 1990s - sustainable settlement - bottom-up self-help projects was proposed (Tait, 1997). In this paper, we evaluate whether the self-help approach can solve the problems faced by Chinese cities that is the problems brought by the settlements of low-income migrants. Two approaches are proposed to solve the problem in the process of Chinese urbanization, which are the top-down and bottom-up theory respectively: the Top-Down approach suggested a macro-adjustment system to ensure a “reasonable and proper” movement of flowing people (Gu 1991, 1994). While the Bottom-Up approach is supported

by McGee's Desakota model, which he argued a bottom-up urbanization process in a developed area is a better solution in urban growth in developing countries (McGee 1989). Since the 15-year reform and the open-door policy of China (Cheng 1995), 30 million surplus labour from rural areas have gone to small towns for job opportunities, making these small towns the "reservoir" of rural surplus labour (Xu and Li, 1987). This is macro-level bottom-up solution; for example the Pearl River Delta in Guangdong province in Southern China, absorbed not only lots of local rural labour forces but also millions of inland rural surplus labour forces (Xu and Li, 1988). This is a middle-level bottom-up solution; here, we can set up a micro-level bottom-up solution.

This paper aims first to unveil the economic characteristics of these "villages-in-cities" and second, to search for appropriate planning approaches and policies for better settling these rural migrants. The first objective refers to a study of how these rural villages function in a metropolis in terms of their economic and organizational behaviours. The second objective, within a self-help approach, refers to how municipal governments and planning authorities should deal with rural migrants in cities. How these migrants can find themselves appropriate channels to secure an economic livelihood and protect of their basic needs (housing and safety) in an environment that is grossly different from where they come from. The paper argued that by allowing the bottom-up development of lower cost housing for migrants in cities in China, it would be mutually beneficial to migrants' home towns and also to the host cities.

The data presented in this paper was collected from a survey conducted in 1999-2000 by the authors. 459 respondents from the "lower income migrant" in Guangzhou and in Dongguan have been selected for the field survey, which consists of an in-depth interview and on-site observations.

2. The Urbanization Process and the “Self-Help” Housing Concept: Theoretical Framework

This paper reported on a study on three inter-related subjects: urbanization, migration, and human settlement, with the latter as the principal focus. Urbanization compounded with massive rural-urban migration is regarded as an inevitable development process with the economic changes of almost all developed and developing nations (Lewis, 1955; Kuznets, 1973; Herrick, 1971; Chenery and Syrquin, 1975). The shift in the spatial location and occupational status of the labour force away from rural and agricultural activities towards urban-oriented manufacturing and services pursuits was defined by Kuznets (1973) as one of the six key characteristics of modern economic growth in almost all developed nations. Lewis (1955), in his well-known two-sector model, illustrated the underlying economic driving force for this historical shift - structural change from a traditional, overpopulated rural subsistence sector to a modern urban industrial sector.

As a result of rural-urban transition, studies on human settlements in general and settlements of urban poor in particular, have drawn a perpetual interest and become increasingly important since the late 1960s. In June 1996, the second UN Habitat Conference marked the 20th anniversary of the first United Nations Conference on Human Settlements (Habitat) and the worldwide concern and endeavors on sustainable development for urban settlement. In the first UN Habitat Conference, held in Vancouver in 1976, the Recommendations for National Action were unanimously approved by 132 countries' governments. The recommendations points to the urgent need for every government to establish “a national policy on human settlements, and to embody the distribution of population and related economic and social activities over the national territory” (Recommendation A.1) as “an integral part of any national economic and social development policy” (A.2) (Hardoy and Satterthwaite, 1986, 9).

From a systematic approach, three levels of human settlements are identified in this

study:

- at the national level: Small and intermediate urban center strategy,
- at the urban and regional level: McGee's *desakotasi* paradigm, and
- at the local level: self-help approaches in low-income housing.

The first two relate to urbanization and development strategies, and the third to settlement policy. Notable research work in the first level can be seen in Rondinelli (1980), Renaud (1981), UNCHS (1985), Hardoy and Satterthwaite (1986), Gugler (1988), and Gould (1992). These studies perceived the small and intermediate urban centres for providing optimum human settlements catering for rapid urbanization and economic, social, and political transformation, while most of these studies did not include China.

Although the urbanization and growth of large urban regions in developing countries, particularly in Asian Countries are inevitable and massive (Yeung and Hu, 1991). McGee (1989) found a unique pattern of urbanization in Southeast Asian countries and in his own term, *desakotasi* paradigm (McGee 1989, 1991), which literally means “village-town-process” or rural urbanization around metropolis, and later collectively developed it into “extended metropolis paradigm” (Ginsburg, Koppel, and McGee 1991). Although the *desakotasi* or “the extended metropolis” paradigm may shed light on the process of rural urbanization, they seem irrelevant in solving the settlement problems of rural migrants in the large cities (one distinctive nature of in *desakotas* or “the extended metropolis” is the urbanization of the countryside without massive rural-urban migration).

The current dilution of vitality of the small and intermediate urban centre strategy and the *desakotasi* paradigm gave rise to the third level of study: a self-help approach. The self-help approach is in response to the inability of government to deal effectively with the overwhelming demand for housing in cities. It has been brought to attention as a feasible solution to the housing need of the urban poor, as there have been a significant number of

studies on the theoretical debates and government reactions to self-help housing in developing economies. (Turner, 1963; Turner, 1976; Ward, 1982; Mathey, 1992; Tait, 1997).

At the local level of analysis, the self-help approach aims at directly tackling the housing problems of the migrants and urban poor in large cities, through both government low-income housing programs and dweller's self-reliance. Since the early 1970s, the self-help approach has become popular in government low-income housing programs, as the problems of slums and shanty town in developing countries have prevailed (Berry, 1973, McGee, 1967 and 1971). Although the self-help approach was criticized in 1970s-80s, it has attained irresistible attraction as a practical solution to the housing problems for both the urban poor and rural-urban migrants (Tait, 1997). It mainly consists of concepts of self-financing and self-control over the settling and building process, self-consumption of the product, familial and communal forms of work cooperation, and application of appropriate technology. Under a general framework of self-finance, self-reliance and self-control housing programs, it has two models: i) legalization and upgrading of informal neighborhoods and ii) provision of sites and services to create new settlements. The first model deals with an institutional establishment, infrastructure development and social improvement for existing squatter areas; and the second model handles zoning, relocation and rebuilding of the squatter areas, under municipal regulation and planning control (Tait, 1997).

After two decades of practice amongst Third World countries, it is widely agreed that the legalization and upgrading of existing squatter areas, the first model, has achieved considerable success, while the second model, the zoning of new sites and rebuilding of squatter areas have failed to claim success. While the first model has been positively accepted as a key to solving the urban low-income shelter problems in many countries, the second has increasingly lost its viability and influence (Payne, 1989). The reasons are very complicated and multi-dimensional, a major one being perceived as political and

institutional. The government role in the first model, though regarded as essential and necessary, is mainly collaborative and subsidiary. By contrast, the second model appears to be more orthodox, with more government intervention embedded in the model. It is also widely recognized that informal systems have performed better than legal systems in the provision of land, a crucial precondition to housing the urban poor. Besides, non-governmental organizations (NGOs), in line with the general trends of democratization and privatization, are also doing better than government, in finding more innovative ways to solve the problems (Sen, 1992).

The above review on human settlement strategies, particularly of self-help approaches, is almost completely absent in the literature on urban development in China, for example: In Kirkby (1985), Sit (1985), Ma and Noble (1991), Yeung and Hu (1991), Lo (1995) and Zhao and Wen (1995). But they appear irrelevant to the topic of this research: migrants' "low income migrants' housing". Until recently, some researchers begin to study these settlements or "villages" notably the study by Zhou and Zhang (1995), Wang (1995a), and Xang (1993). Although these works contribute greatly to the understanding of the "low income migrants' housing", most of them are either based on a sociological and anthropological perspective, and none being scholarly studies from a planning perspective. Two of the most relevant pieces of research can be seen in Ma (1997) and Zhao and Zhang, (1995). Based upon a comparative analysis of 50 variables, in a total of 467 Chinese cities, Zhao and Zhang perceived the importance of a complete reverse in China's current urban policy, which restricts large city development, and for the settlement of massive numbers of rural migrants in the large cities. They also, for the first time raised the notion of building-up Chinese-style low-cost housing or "socialist shanty-towns", a concept similar to Turner's (1963) planned squatter settlements.

The phenomenon of "village" is new in contemporary Chinese history and the

magnitude is huge, with 100 million rural people continuously on the move, gathering in clusters of thousands of thousands in the major metropolises such as Beijing, Shanghai, and Guangzhou (Chan, 1995). But few sensible government policies, apart from simple administration and forced deportation, took place. As scholarly studies of a planning perspective on these settlements is almost non-existent. Thus, this paper provides a new, innovative approach on the issue.

3. Research Methodology

The first question to conduct a research on this matter on data source and its availability. A small-scale survey with in-depth interviews is proposed. Since large-scale interview is neither feasible nor appropriate for drawing conclusions of this kind. The mobile nature of migrants makes it difficult to have a good estimation with one single survey. Secondly, the migrants, without a legal right to reside in the city, tend to give unreliable answers to interviewers. Thirdly, the results of a large-scale survey shall be inaccurate, as the migrants may be hostile and distrust to the interviewers. We shall first pay several visits to the community, through the introduction made by our collaborators, to make friends with potential respondents and to observe the daily activities within the community. In-depth interviews, with the assistance of our collaborators, if needed, will be conducted after rapport has been obtained. The major issues covered during the interviews include:

- demographic information of the migrants and their economic activities,
- their ways of seeking jobs and their ways to obtain social services,
- their patterns of remittances,
- their means of livelihood,
- the affordability of shelter,
- their attitudes and interaction with the host urban community,

- the attitudes towards the government, and
- the internal organization of the local authority.

The second question is where the survey shall take place. Of all the metropolises that has a substantial number of migrants, the city of Guangzhou is the most suitable for conducting the surveys mentioned above. Guangzhou is the provincial capital of Guangdong province. It is the gateway for vast rural surplus labours seeking jobs in southern China, particularly in the Pearl River Delta region, the fastest growing regions in China. According to a municipal population survey, there were at least over 1.5 million rural migrants, accounting for one third of the city's total population, in the city. There are plenty of those rural migrants' clustering settlements scating around the fringe areas of the city, such as Shipaicun and Xiancun in Tianhe District, Xinfengwangcun and Wufengcun in Haizhu District, Lianxincun and Qiaodongcun in Henan District, and Yangjicun in Dongshan District. Therefore, the city of Guangzhou should be the ideal site for the study of migrants' self help housing in China. There is, however, administrative boundary realignment between 1999 and 2002, as such, statistical data are captured at the time of the survey under the former administrative delimitations (For the lastest administrative realignment, see discussion by Xu and Yeh, 2003).

4. Findings of the Survey

Demographic and Income Data

This section is based on the findings published in Chan, Yao and Zhao (2003). A total of 459 persons were being interviewed in this survey successfully, most of them are male (67.4%), the majority of them received at least junior middle school education, and only 19.66% did not receive at least junior middle school education. There is a diverse range of occupation among the migrants, with are engagements in the service industry (24.8%),

manufacturing industry (16.5%) and construction work (12.6%), have the highest number of people attended. One interesting thing to look at is that 13.9% of the people surveyed claimed they are self-employed. They average earned more than 1000 *Yuan* (during the research period, US\$1 equals to 12 *Yuan*) in Guangzhou, and they had an average monthly saving of 425.07 *Yuan*.

The number of urban migrants was growing drastically in the past twenty years. In 1979, the ratio of migrants to locals was 17:100 in Guangzhou City, which became 45:100 in 1999. Similar situation was found in Dongguan city, the ratio increased from 50:100 to 99:100 from 1990 to 1996. In many towns like Shipai in Guangzhou and Yantian in Dongguan, migrants have already outnumbered the locals; with the former have a ratio of 130:100 and the latter of 2433:100.

Table 1: Some Demographic Data On The Inhabitants of The People Living In The “Lower-income Migrants’ Housing” in Guangzhou

Number of Interviewees : 459 persons
Sex: Male: 67.4%; Female:2.6%
Marital Status : Married: 53%; Single : 48%
Level of Education: illiterate: 5.45%; primary school: 13.99%: Junior middle school: 46.54%; high school: 23.9%; University: 11.11%
Occupation : Industrial: 16.5%; Construction: 12.6% Self-employed: 13.9%; Services :24.8%; Others 3.0%
Average Income in Guangzhou : <i>Yuan</i> 1027.86
Average surplus per month: <i>Yuan</i> 425.07

Source: Compiled from the survey conducted in late 1999 early 2000.

Table 2. Income of migrants

Income (<i>Yuan</i>)	Less than 500	501-800	801-1500	1501- 2000	2001- 3500	More than 3501
Percent %	24.4	29.1	34.1	7.8	2.0	2.1

Source: Compiled from the survey conducted in late 1999 early 2000.

As for the income level of the migrants, over half of them (53.5%) earned less than 800 *Yuan* per month, while the income category with the biggest number of people was between 801-1500 *Yuan*. Compared with per capita annual gross income of rural households in 1999 is 2987.44 *Yuan* (State Statistic Yearbook, 2000). It is obvious that income of migrants are lower than standard of rural households. Indeed, they earned much lower than their urban counterparts, in which the per capita annual income of urban household in 1999 is 5854 *Yuan*.

Although the income of people living in the migrants' settlements is lower than the income level of rural households. They would still want to go to migrate to such settlements in Guangzhou and to work in there. It is because they could send most money home through the provision of "low income migrants' housing" housing. Without the existence of such housing, the migrants may not be attracted to migrate to Guangzhou as much as there is such housing available.

In Table 3, we can see that most people living in the lower income migrants' housing send most of their income home. This is evidenced by the fact that 55.9% of the people surveyed claimed that they have a surplus income between 200 to 1000 *Yuan*, in which a similar percentage of people living in the "low income migrants' housing" in Guangzhou claimed they earned such amount.

Table 3: Savings of migrants (in *Yuan*)

The income surplus	Less than 100	101-200	201-500	501-1000	More than 1000
Percent %	21.4%	15.3%	40.6%	16.6%	4.8%

Source: Compiled from the survey conducted in late 1999 early 2000.

Different Types of Migrant Shelters

The shelters of migrants can be classified into eight types (Table 1). 49.45% of migrants are living in rental housing, 25.27% in collective dormitory, 15.6% in spontaneous living and 4.85% in shared housing (i.e. staying at others house), which add up a total of 95.16%.

Table 4 Migrant shelter*

Type of Shelter	No. of People	Ratio (%)
A Shared Housing	22	4.84
B Spontaneous Living	71	15.60
b1 in open area	3	4.23
b2 in abandoned house	5	7.04
b3 on water boat	1	1.41
b4 in construction shed	45	63.38
b5 self-constructed mat shed	11	15.5
B6 Others	6	8.45
C Small Hotel	2	0.44
D Rental Housing	225	49.45
d1 public housing	9	4.00
d2 private housing	151	67.11
d3 business-housing	12	5.33
d4 temporary housing	1	0.44
d5 collective housing	16	7.11
d6 others	36	16.00
E Collective Dormitory	115	25.27
F Self-purchased Housing	9	1.98
G Self-constructed Housing	7	1.54
H Others	4	0.88

Source: Compiled from the survey conducted in late 1999 early 2000.

*No answers were given for this question in 24 questionnaires.

Details of different types of housing are described below:

A) Shared Housing

When the migrants first arrived, they would usually stay at their friends' or relatives' home. This kind of housing although permits a shorter adaptation period; it is of a temporary nature.

B) Spontaneous Living

Living in open area, abandoned house, water boat, construction shed and self-constructed mat shed, etc. are all classified under spontaneous living. There are 63.38%, 15.49% and 7.04% of migrants living in construction shed, self-constructed mat shed and abandoned house respectively.

Spontaneous living, refers to people with no future plan on their living place, is common for migrants around the world. Migrants leading this kind of lives usually have the poorest living conditions. Since people living in this kind of shelter are categorized as occupying the land illegally, it is not difficult for the government to fix problems brought by this type of housing.

C) Small Hotel

As the income of migrants is not high, living in small hotel is financially infeasible for most of them.

D) Rental Housing

Living in rental housing, which includes those living in public housing, private housing (which takes up 67.11% of migrants living in rental housing), business-housing, temporary housing and collective housing (which takes up 7.11% among those living in rental housing), etc, are the types of shelter that most migrants live. As the number of migrants has increased drastically, rent of rental housing has also increased. Though the living condition of rental housing is better than that of spontaneous housing, it is still below standard, many migrants are squeezing to live in a small house in order to save money.

E) Collective Dormitory

Generally speaking, most factories provide dormitories for their workers. Like those "three-capital" ("sanzi") enterprises in Pearl River Delta region, they usually set up dormitories beside the workshop and construction site. Take the enterprises in Yantian of Dongguan city as examples; they are required to provide dormitories for workers, with one room for 10 workers and 0.2 m² for each worker at the minimum. As enterprise usually only follows the minimum requirements, dormitory barely have any spare space. So when friends or relatives of workers came, few of them can stay in the dormitories. Worst still, some

private enterprises set up shed as shelter for their workers, which makes the living condition of workers even harsh.

F) Self-purchased Housing and G) Self-constructed Housing

Living in self-purchased or self-constructed housing is not common among the low-income migrants. As only few people could be able to afford it.

5. Implications of the Survey: The Living Characteristics of Migrants living in “Low-cost Migrants’ Housing

Attitudes of Their “Host City” From The Inhabitants

From the questionnaires, it is found that rental housing, collective dormitory; shared housing and spontaneous living are the housings most migrants chose. Despite the harsh and sequentially worsened housing conditions, all the migrants demonstrated extreme resilience. In fact, most of them simply take a temporary countermeasure to settle down; the short-term behavior in the course of settlement becomes more evident. But in the long run, if they stay in self-constructed building, they tend to consider their “host city” a “home”.

Living Conditions

Migrants living in friends’ or relatives’ house are common at their early stage of arrival. According to the survey, the majority of migrants (74.4%) live with their friends and relatives, among them, 41.2% are due to earlier arrangement and 27.5% are due to financial considerations, etc.

In most cities of China, the floor area per capita is around 8 m². However, being a vulnerable group, 12% of the migrants are living at less than 2m² floor areas per person, 23.3% at less than 4 m², 14.7% at less than 6 m² and 19.7% at 6-8 m².

Also, most of the migrants do not live at quarters with full basic facilities (basic facilities: water, electricity, private kitchen and toilet). It is found that 56.2% and 23.3% of the interviewees were living in one and two rooms respectively, which means with no private facilities at all. Only 40.4% of them have private kitchens and toilets while others are still

using the public ones or have none at all.

Distribution of Migrants

Because of the land-use system and the long-standing organizational administrative system, urban villages are never under tight control. Lots allocated to farmers in the past became places where migrants stay; this is especially so when these urban villages are near to cities. The number of migrants living in urban village equals to that of local residents. For those villages close to big cities, rent is also higher which is around 8-10 *Yuan/m²*. Migrants living in these villages are usually clerks, workers living with their families, people working in the service sector and judging from the rather high percentage of people which are individual employers, some of them engage in all kinds of small businesses. For villages located halfway between town-and-country, rent is at an average of 6-8 *Yuan/m²*. Migrants in these villages are mostly those running small factories or working as "surrogate farmers".

As mentioned, most of the enterprises, particularly those "three-capital" and joint ventures one in the Pearl River Delta region, provide dormitories for their workers. As the dormitories are built side-by-side with the factory plants, the workers are confined to a small territory with virtually no supporting facilities: for example, the lack of eating-out and leisure facilities in order to maintain an efficient management of enterprise.

City Landscape and Conditions of Urban Villages

For migrants living in cities, they stay either at civic homes or at sheds built amid high buildings, workstations or undeveloped areas. Viewing from the angle of city landscape, the former matches the city landscape whereas the latter forms a marked contrast to the modern high buildings.

The density of settlements of "urban villages" especially at places in the cities, form a striking contrast to other parts of the city. In the "urban villages", 70% of the areas are built

with two to six-storey buildings. Buildings are so close together that people can shake-hand with tenants from the near-by units. Infrastructure is not well developed. Problems like insufficient water supply and drainage, poor water quality and road pavements, etc., all result in bad ventilation, traffic congestion and lack of sunlight in the villages. With the poor living environment, it is not difficult to understand why urban villages are considered seedbeds of social evils.

As settlements in urban villages are temporary and leased out in an informal way, it is never an easy task for the government to have *hukou* registration. Due to this reason, influence on the social and urban development like dual-structure, segregated communities and social confrontation are found. It is sometimes criticized that these problems root from insufficient housing allocated to the low-income group.

6. Bottom-up Self-help Housing of Migrants

Intersectional Analysis

To analyze the housing consumption behavior of migrants, the intersectional analysis is adopted. The findings are as follows:

- Most of the migrants living in the top three types of shelters (rental housing, collective dormitory and spontaneous living) are male at the age of 19-30, with an average monthly income of 300 to 800 *Yuan* and little savings.
- People staying at rental housing and collective dormitories usually have higher education level, usually working in the secondary sector, and have stayed in the city for a longer time (1-3 years in average) and came from towns and cities.
- For tenants of rental housing, most of them are from Hunan, Guangdong, Jiangxi and Sichuan.
- For tenants of collective dormitories, they are from different provinces. For those

leading spontaneous lives, many of them are from Hunan and Sichuan provinces and are working in the tertiary sector.

From Table 5, it is found that migrants tend to stay in shared housing and spontaneous living at their early stage of arrival, thus these two types of housing are considered as temporary shelter for them. At a later stage, which is also considered as the stage of transition, migrants tend to live in rental housing and collective dormitory. And in the long run, as they full adapted to their “host” city, they would move to self-purchased housing and self-constructed housing.

Table 5 The Living Trend of migrants

Characteristics of Tenants	Type of Shelter	Shared Housing	Spontaneous Living	Collective dormitory	Private Housing	Self-constructed Housing
<i>Education Background</i>						
Low (primary or below)		✓	✓			
High (secondary or higher)				✓	✓	✓
<i>Time stayed in the city</i>						
< 1 year		✓	✓			
1-2 years					✓	
> 3 years				✓		✓
<i>Sectors</i>						
Primary (agriculture)						✓
Secondary				✓		
Tertiary					✓	✓
<i>Savings</i>						
< 10,000 Yuan		✓				
> 30,000 Yuan				✓	✓	✓
<i>Origins</i>						
From Guangdong province		✓			✓	✓
From places near to Guangdong province like Hunan, Guangxi, Guizhou.		✓	✓			
From places far away from Guangdong like Jiangxi, Henan.				✓	✓	✓

Source: Compiled from the survey conducted in late 1999 early 2000.

Basic Framework of the Solution for Shelter Problems

Under the bottom-up self-help housing approach, migrants living in rental housing, collective dormitory, self-purchased housing, self-constructed housing will finally shift and live in self-help housing. The basic framework of the solution for shelter problems are outlined below:

(1) In the short run, a pilot scheme on self-help housing can be introduced, which may result in two outcomes: either to shorten the time of migrants moving to shelter which they will stay permanently, or to increase the number of migrants going back to their place of origins- the countryside.

(2) There are two types of self-help housing, namely individual self-help housing and organizational self-help housing. As the income level of migrants is crucial in deciding the type of shelter they lived, organizational self-help housing seems to be a better choice. The self-help housing organization can either be a local or foreign, district or societal enterprise.

(3) The self-help housing approach is applicable to all places in China, which should first be applied to city centre, then periphery, and metropolitan areas. During the trial of self-help housing, it is found that some migrants were better off in terms of their quality of life and income. And some feel easier to adapt to city lives, too. At the end, it is found that self-help housing led to few outcomes, that are some migrants are forced to move back to their place of origins, some to countryside and some to metropolitan area by purchasing houses.

From the above intersectional analysis, it is found that educated migrants at the age of 19 or above, whom had stayed in the city for more than a year and had 10,000 *Yuan* or above in savings, which is a sign of efficient productivity as only people with high productivity could earn income, and therefore a high amount of saving, made them able to afford self-help housing. The cities shall attract these people to stay. People with high savings

in all other countryside areas, villages and towns with good economic development, are therefore being attracted to live and work in the cities with such provision. Therefore, it allows a bottom-up approach of such development.

It is only with the help of government do self-help housing be able to carry out in China. This may be done through the Built-Operation-Transfer (BOT) mechanism and the introduction of “inner” transaction cost. By doing so, land development cost will be lower and housing development will be able to operate according to commercial principles. Adopting “increment development” with international assistance and flexible planning principles, the major source of finance for the development of self-help housing should be from the locals and the local government. Also, the self-help housing market should be operated which functions as a “housing filter” and link with other real estate markets. Given the strict control on organization structure, the respective law and education on self-help housing, self-help housing in China will finally develop under the bottom-up approach.

7. Bottom-up Urbanization and Shelter Development

Bottom-up Urbanization

Bottom-up urbanization is defined as the process is initiated and financed by the bottom level that is farmers, local community and local government. Viewed territorially, the bottom level refers to the population living in towns and villages at countryside and those from the economic-developed regions. Similar to the above bottom-up urbanization, another kind of urbanization was found twenty years ago during the period of open-door policy. At that time, surplus workforce from countryside (that is the people from the bottom level) moved to cities, initiate and finances the urbanization process in cities, rather than in countryside (Chan and Yao, 1999).

Impacts on Rural and Urban Development

Urban-rural Economic Development

The survey shows that it usually takes a few years (e.g. 3-5 years) for migrants to settle. During their adaptation period, the migrants' shelters have a long-lasting influence on the rural and urban development.

Migrants working in their place of migration usually earn a higher level of income, for example, the average savings for a migrant is 425.07 *Yuan* per month. It is found that the savings of 62% migrants exceed the monthly income of national farmers, and 46.6% of the migrants' annual family income exceeds that of the national level.

As mentioned, due to adaptation problems, some migrants will move back to countryside and this usually happens to migrants who live in cities for less than 5 years. While this group of migrant's moves back, they bring with them advance technologies and the "city culture", which will have positive effects on the economic and social development of countryside. But, an effective system fostering a continuous development of countryside doesn't exist. Thus, it is necessary for the state to encourage self-help housing and promote self-help education such that more migrants can adapt to urban living and understand the consequence of work force movement. By doing so, the economy of countryside will develop continuously.

Urban development has brought about more city construction projects, leading to labour shortage in several fields, including the informal sector. Because of education level and other constraints, most migrants prefer to work in the informal sector, which is made up of small-size private companies characterized by their flexibility, low technology and labour-intensive working environment. This greatly supports the growth of the urban informal sector.

In the long run, the self-help education program will improve the cultural background and social sense of migrants. Migrants will gradually move from informal to formal sector. Comparing with situation at present, the development of self-help housing will

have a positive effect on the formal sector of urban areas.

Urban Development and Allocation of Shelter

Developing self-help housing does not only boost the informal sector, it may also affect the land-use allocation of city since population agglomeration and industrial concentration always goes hand-in-hand. To ensure a regular spatial expansion, it is necessary to have a site with all the land-uses planned and development not solely operated under commercial principles.

Through the collaboration of different groups during the self-help process, the relationship between family members, self-help groups as well as that with society will be enhanced. This will then strengthen the spatial connectivity of different land-uses.

Shelter Development and Urban Society

The unplanned migrants' shelter has led to scattered urban space. Neighbourhood diversion has brought about a series of social problems.

The self-help housing model can change the situation by bringing in unity and fully utilize the resources of primary groups during the self-help process. Eventually, the self-help process will lead to the development of 'migrants culture', as some of the long term migrants would be heavily involved in the "migrants' affairs" of their own province in the "host" city, and to help the new migrants to adopt the new "mainstream" culture of their "host" city.

Migrants will enrich their knowledge on different aspects through the self-help process, which would then allow them to get a better job, enhance their social consciousness and improve their income. Like self-help housing, it will enhance their interaction and knowledge with other cities. So, at the end, migrants and city will conform to each other, and

social conflicts stemming from misunderstanding will be reduced, which permits migrants to adapt to city lives easier.

Bottom-Up Urbanization and Shelter Development

The bottom-up urbanization process is made possible via three major aspects: The spatial expansion of urban areas, the changes in economic structure in the cities and the emergence of urbanized migrants.

The first step towards the whole bottom-up urbanization is the construction of self-help housing. The first issue that it encounters is how this policy shall be funded, it could be funded by both internal and external force: The internal force can be from trustworthy (i.e. with good financial background and records) loans from formal and informal organizations, such as newly emerged “Housing Banks”¹ and work unit’s Housing Central Funds², and from the savings of the migrants themselves. The external force is the funding from international Non-Government Organizations (NGOs) and other international aid agencies like the World Bank. The construction scheme shall be a national policy, with full approval from the central government, while full, centralized command and support are unnecessary. In addition to the provision of funds, various self-help education programmes on construction methods and other “urban” skills are to be taken off in the cities.

The provision of funds and education in the construction of self-help housing scheme shall result in the spatial movement of work force and the development of migrants’ settlement, which would lead to the three major processes mentioned above in the bottom-up

¹ Housing Bank is a recently emerged, local and community housing service unit, which serves to facilitate local people to exchange, buy, sell and rent their own houses within the community. Some time it involves lending money to those not immediately having money for the transaction. These Housing Bank exists usually in the old, low cost residential area, such as work units housing that was privatized.

² In current China, particularly in state sector, all employees are required to hand in a certain percentage of their wage to a Central Housing Fund, which, in turn, can be borrowed by individual employee to finance their down payment or mortgage for housing purchase.

urbanization process.

The spatial movement of work force means the free, easier and more affordable movement of labour from rural areas to cities. But it is not a one way track from the “rural” areas to the “urban” areas, as some will return to the rural areas, and the skills they learnt in cities would be useful and be able to contribute to the economic development in the rural areas, as urban technologies and the “urban way of life” flowing to rural areas. These economic and social developments in the rural areas will narrow the “gap of development” among the rural and urban areas. The development of industries shall concentrate on the rural areas, because firms take advantages on the cheaper and more skillful, labour available in the rural areas. Such industries shall attract more people back to the “rural areas”, results in the population congregation and industrial agglomeration in the rural areas. Therefore, the process will transform the rural areas to become “urban” areas, resulting in the spatial expansion of urban areas.

The spatial movement of workforce could also strengthen the formal and informal economic sector of the cities. It is because the migrants would take the jobs (such as street cleaning) which the inhabitants in the cities would not take. But as some of the migrants eventually decided to stay in their “host” city, and after the working experiences they have gained, will enter to the formal sector in the city as well, which results in the gradual transfer of migrants’ occupation. The increase in the availability of a cheap and efficient labour force, shall allow the strengthening of both the formal and the informal sector in the economy of the city, and it will result in the economic structural change of urban areas.

The development of migrants’ settlement, where the migrants came to their “host” city earlier would be able to help those who recently arrived, by transferring “survival” skills in the cities, and also the ones who recently arrived will be able to “cure” their “homesickness”

of the ones who arrived earlier by bringing back goods and informing them news of their place of origin, it will enhance the adaptability between all the migrants, and enrich migrants' knowledge on the "urban" way of life and job skills to all migrants. It shall raise the cultural consciousness of migrants as a "constructive" group in the urban society, which shall contribute greatly to their adopted city. The development of migrants' settlement shall be a "breeding ground" for "urbanized migrants"—Migrants who are very well aware of the "urban mentality" and "urban technologies", and could introduce these ideas and skills if they decided to return to the "rural" areas.

The "skills exchange and education" between the "new" and the "old" migrants in the migrants' settlement will also lead to the gradual transfer of migrants' occupation, as the "new" migrants will, like their predecessor, be employed or being self-employed in the informal sector, when they first arrived at their "new home", and eventually, most of them will work in the formal sector later. This will lead to the strengthening of both the formal and informal economic sector in the urban areas, therefore leading to the development of migrants' settlements will lead to the economic structural change of the urban areas.

The construction of self-help housing would lead to the process of bottom-up urbanization, where this form of urbanization process started from the implementation of a national policy on self-help housing. Therefore, a "no-pain" urbanization process will arise, where the central government delegates its power to the local authorities and organizations (including foreign aid agencies) without the need for the implementation of population control policies from the central government. We further identified the conflicting roles played by different stakeholders in our survey that we now turn to discuss.

9. Conflict of Interest of Different Stakeholders

This study revealed a wide range of interest conflicts among different parties: the central

government, municipal governments, villagers and migrants, as well as the governments of the origins and the destinations of the migrants. General speaking, the national or central government has adopted an ambiguous attitude toward the issues and problems of rural migrants in the cities. In addition to some basic administrative policies, such as the registration system of temporary population in cities and the gradually relaxing *hukou* system, the national/central government has usually adopted Deng Xiaoping's philosophy of "crossing the river by touching the pebbles" (test by trying or learning by doing), and has not adopted to a clear-cut policy on the issue of settling rural migrants in cities. It leaves tremendous rooms for the municipal and local governments to manipulate or to work out their policies. In this connection, interest and policy conflicts have been severely created between municipal and local/district governments, and particularly between the municipal government of the destination of the migrants, the villagers and the migrants.

Normally, with the paramount economic interest (profiteering) in mind, local/district governments, villagers and migrants are in the same line/front – they collaborated, cooperated, and even practicing acts of bribery and corruption, in order to achieve the common goal for the realization of economic prosperity. Under such practice, they appeared to be all better off – the district governments (as well as officials) saw their income surged from taxing the villagers and migrants and from various payments in kind (including money and 'gifts' from bribery) handed in to them, while villagers gained from the renting the their flats to migrants who, in turn, obtained the low cost accommodation they need most, and, above all, a piece of territory of their own to survive and to prosper.

However, due to its informal and illegitimate characteristics, this symbiotic local/district scene of prosperity usually associated with the negative images and illegal activities, i.e. "dirty", "messy", "shanty", "public disorder", "prostitution", "crime", and even "seedbed of organized crime" etc. Understandably, these bad images and activities have not only made

the citizen uncomfortable, but also imposed tremendous challenges to the officials in the municipal authorities, who are often too vain and concerned about their 'good' images. Thus, as a result, confrontation is unavoidable. But, normally the local/district government and villagers though have vested interests, have no power to oppose, and therefore, they have to obey to the municipal government. Consequently, a true confrontation shall arise between the municipal and migrants.

The extreme case of the conflicts between the migrants and the municipal governments of their destinations took place in Beijing in November 1995. An armed conflict and shooting between the migrants and the municipal public security forces in the Dahongmen District in Beijing erupted. The District, situated in the northern suburb of Beijing, is one of the largest settlements for rural-urban migrants in Beijing. Since 1983, temporary rural-urban migrants have been gathered there, particularly those from the Zhejiang province (hence nicknamed 'Zhejiang Village'). By 1995, it had gathered 37,800 temporary residents who live there for more than one-year, and about 100,000 short-term residents. This conflict and bloodshed had led to a city-wide forced deportation of the temporary residents/rural-urban migrants and a thorough and large-scale demolishing and cleansing of the clustering settlements by the Beijing municipal authorities, under the slogan of "maintaining law and order and combating crime".

The treatment of migrants from the Beijing municipal government is somehow draconian and inhumane. The Beijing municipal government has subsequently launched several times of large-scale deportations of migrant workers. After each deportation, the same migrants will return, bringing along their relatives with them, and as the scale of deportation gone larger and larger each time, the number of relatives that the migrant workers bring along with them doubled on each occasion of returning. This signifies the prevalence of the market forces that has increasingly be out of control by any "planned" or "administrative"

mechanism in current China. It also shows the power of the coalition or the alliance among the villagers, the migrants, and district/local government against the wishes of the municipal governments (Ma and Biao, 1998).

Compared to Beijing's stringent attitude towards migrants' settlements, the Guangzhou's government attitude on them is slightly lenient. As mentioned above, the Guangzhou municipal government intends to pull down all villages-in-city and construct 'proper' real estate development for accommodating the 'mainstream' citizens reside in Guangzhou (with a Guangzhou 'hukou') in the land formerly occupied by the informal and illegal settlements. Unlike the counterparts in Beijing, the migrants reside in Guangzhou are not being deported, but their settlement would be demolished. By doing so, it seems that the upgrade the villagers' housing, as well as their social status, through the conversion of them to be legitimate citizens of Guangzhou with official urban hukou. But the former prosperous economy of the villages-in-city, the migrants' valuable housing, the format of their community, the tax and the income generated by the 'community economy' would be also wipe out and vanished.

10. Conclusion

Judging from the outlook of the many migrant quarters we had studied, (i.e. the dirtiness, the overcrowding environment and the concentration of relatively "poorer" persons) the "low income migrants housing" in Guangzhou looks like the "urban slums" commonly seen in developing countries, and that it should be "cleaned up". It may also seems that the Chinese government should implement the "top-down" approach, that is through the direct intervention by the central government on controlling the size of cities, and controlling the development of the "migrants housing", in order to maintain an "appropriate" growth (at least in the central government's point of view) of urban development in China.

But if we take a look at the “bottom-up” solution of self-finance, self-education and keep an “open mind” attitude on the migrants. We could see that the migrants should become migrants with “urban” spirit, which would bring the “urban way of life” back to their “home” village or town. The migrants would encourage the spatial development, provide different kinds of goods and service, especially jobs related to the “informal sector” that the original inhabitants of the city are unwilling to work on, and therefore, they provide an efficient and relatively cheap labour force to the “host” city, especially those living in dormitories. At the same time, it signifies the huge “loss” of labour and resources in their place of origin, and resulting in the transformation of labour and “resources reallocation” between those areas).

The provision of self-help housing by the local authorities to the migrants shall heavily attract migrants who would prefer to stay in the cities, and those who do not really want to leave the city. This, maybe be benefited the “host” city, as only people with high productivity, and therefore high savings, will be able to purchase the self-help housing.

The provision of self-help education would be able to build a sense of responsibility among the migrants, to build him to be an “urbanized and “civilized” migrants, they will bring this attitude back to their place of origin.

The paper provides theoretical and actual solutions for the government and housing related agencies to reconsider the “top-down” policy orientation in curbing the growth of “lower-income migrants’ housing”. They should be willing and able to execute a “bottom-up” approach, where the implementation of solutions are initiated from the bottom, through, local community, local governments and the migration process itself, in the formation of constructive and sensible policy options for the urbanization process in China. Through the allowance from the central government for the development of “low-income migrants’ housing” nationwide and permitting local governments to be responsible and the provision for such housing, it shall result in the shortening of distance of understanding and difference

in skills of the people between the rural villages and the urban areas in China, and therefore beneficial for the overall urban development in China.

We believe the China's existing practice of "villages-in-city" would be a preferred and practical model for the development of low-cost migrants' housing, in which the construction of low-cost housing is on a self-help basis built by villagers and rent by the migrants. It is because through the combination of forces between the villagers, the migrants and the district governments in the provision for housing for migrants, without the intervention from municipal governments, it will bring a feasible and mutually beneficial development of low-cost housing for migrants, and contributes to the economic and social development of the city. We shall conclude that this practice could be the success model that would fit well in the Chinese context, and it could provide a good example for other developing countries as well.

References

- Berry, B.J.L. (1973) *The Human Consequences of Urbanization*, The MacMillan Press Ltd.: London.
- Blitzer, S., Davila, J., Hardoy, J.E., and Satterthwaite, D. (1988) *Outside the Large Cities: Annotated Bibliography and Guide to the Literature on Small and Intermediate Urban Centres in the Third World*, IIED (International Institute for Environment and Development), London.
- Burgess, R. (1977) *Self-help Housing: a New Imperialist Strategy: a Critique of the Turner School*, *Antipode*, 9, pp.50-59.
- Burgess, R. (1984) *The Limits of Self-help Housing Programs*, in Korte, B. A. & Mathey, K.: *Development of Low-income Neighbourhoods in the Third World*, Damstadt, Archimed-Verlag.
- Cai, F. (1990) *Dualism Economics and Transform of Labour Force in China*. China Peoples' University Press.
- Chan, R.C.K. (1995) "The Urban Migrants - the Challenge to Public Policy", in Wong, L. and MacPherson, S. (eds.) *Social Change and Social Policy in Contemporary China*, Avebury: Aldershot Brookfield, pp.66-187.

- Chan, R.C.K. and Yao Shimou (1999) "Urbanization and sustainable metropolitan development in China: Patterns, problems and prospects" *GeoJournal*, Vol. 49, pp. 269-277.
- Chan, R.C.K. ,Y M Yao and Simon X B Zhao (2003) "Self-help housing strategy for temporary population in Guangzhou, China", *Habitat International*, Vol. 27, pp.19-35.
- Chenery, H. and Syrquin, M. (1975) *Patterns of Development, 1950-70*, Oxford University Press: London.
- Cui G. H. and Ma, R. (1999) "The Development and Mechanism of bottom-up Urbanization", *Geography Periodical*,2.
- Fei, H.T. (1985) "China's Road to Rural Industrialization", *Beijing Review*, Vol. 28. No.14, pp.24-26.
- Fei, H.T. (1986) *Small Towns in China: Functions, Problems and Prospects*, Beijing, New World Press.
- Ginsburg, N., Koppel, B. and Mcgee, T.G. (eds) (1991) *The Extended Metropolis: Settlement Transition in Asia*, University of Hawaii Press: Honolulu.
- Gould, W.T.S. (1992) Urban Development and the World Bank? *Third World Planning Review*, Vol. 14. No. 2, pp. III-VI.
- Gu S. Z. (1991) *Research on Non-agriculture and Urbanization*, Zhejiang People's Press.
- Gu S. Z. (1994) *Population Flow and Urbanization in Present Age in China: A Century Social and Economic Project* Wuhan University Press.
- Gugler, J. (1988) (ed.) *The Urbanization of the Third World*, Oxford University Press, New York.
- Hardoy, J.E. and Satterthwaite, D. (eds.) (1986) *Small and Intermediate Urban Centres: Their Roles in National and Regional Development in the Third World*, Hodder and Stoughton, London.
- Herrick, B. (1971) "Urbanization and Urban Migration in Latin America: An Economist's View," *Latin American Urban Research*, Vol. II, Sage Publications, Beverly Hills, pp.71-81.
- Huang C. (1998) "Character, Role and Tendency of Rural Labour Force Transform in Nineties", *Population Research*,
- Kirkby, R.J.R. (1985), *Urbanization in China: Town and Country in a Developing Economy 1949-2000 AD*, New York: Columbia University Press.
- Kirkby, R. and Zhao, X.B. (1999) "Sectoral and structural considerations in China's rural development", *Tijdschrift Voor Economische En Sociale Geografie (Journal of Economic and Social Geography)*, Vol.90: 3, pp.272-284.
- Kuznets, S. (1973) "Modern Economic Growth: Findings and Reflections", *The American Economic Review* Vol. 63, No.3.
- Lewis, W. A. (1955), *The Theory of Economic Growth*. London: George Allen & Unwin.
- Ma, Laurence, J.C. and Biao Xiang (1998) "Native Place Migration and the Emergence of Peasant Enclaves in Beijing", *China Quarterly*, Vol.155, pp.546-581.
- Ma, L.J.C. and Noble, A.G. (1991) "Chinese Cities: A Research Agenda", *Urban Geography*,
- Mathey, K. (1992) *Beyond Self-help Housing*. Murchen: Profil verlag; London: Mansell.
- McGee, T. G. (1967), *The Southeast Asian city: a social geography of the primate cities of Southeast Asia*. London: G. Bell and Sons, Ltd.
- McGee, T. G. (1989) *Urbanisasi or Kotadesasi? Evolving Patterns of Urbanization in Asia*, in Costa (eds.) *Urbanization in Asia: Spatial Dimensions and Policy Issues*, Honolulu: University of Hawaii Press
- McGee, T. G. (1991) "The Emergence of Desakota Regions in Asia: Expanding a Hypothesis", in Ginsburg, N., Koppel, B. and McGee, T.G. (eds.) (1991) *The Extended Metropolis: Settlement Transition in Asia*, Honolulu: University of Hawaii Press

- Payne, G.K. (1989), *Informal Housing and Land Subdivision in Third World Cities: A Review of Literature*, Oxford, CENDEP.
- Pugh, C. (1997) "The Changing Roles of Self-help in Housing Using and Urban Policy, 1950-1996: Experience in Developing Countries", *Third World Planning Review*, Vol.19, No.1
- Renaud, B. (1981) *National Urbanization in Developing Countries*, Oxford University Press, World Bank.
- Rondinelli, D.A. (1980) "Balanced Urbanisation, Regional Integration and Development Planning in Asia?" *Ekistics*, Vol.284, pp.331-339
- Sen, S. (1992) "Housing NPOs, the State and the Poor: The Case of India", *Third World Planning Review*, Vol. 14, No.2, pp.149-166
- Sit, V.F.S. (ed.) (1985) *Chinese cities: the growth of the metropolis since 1949*. Hong Kong: Oxford University Press.
- Tait, J. (1997) *From Self-help Housing to Sustainable Shelter: Capitalist Development and Urban Planning in Lusaka, Zambia*. Brookfield, USA.
- Tian J. P., Xu X. Q. and Zhao X. B. (1999) "Development of Self-help housing Theory", *Planning and Observation*,
- Turner, J.F.C. (1963) "Minimal Government Aided Shelter", *Architectural Design*, pp. 379-80.
- Turner, J.F.C. & Fichter, R. (1972) *Freedom to build: Dweller Control of the Housing Process*. New York: Macmillan.
- Turner, J. F. C. (1976) *Housing by People: Towards Autonomy in Building Environments*. London: Marion Boyars.
- Turner, J.F.C. (1982) "Issues in Self-help and Self-managed Housing", in Ward, P.M.: *Self-help Housing: A Critique*, Mansell Publishing Ltd., Alexandrine Press, Oxford.
- UNCHS (United Nations Centre for Human Settlements) (1985), *The Role of Small and Intermediate Settlements in National Development*, UNCHS, Nairobi.
- Ward, P. M. (1982) *Self-help Housing: a Critique*. Alexandrine Press, Oxford.
- Wang C. (1995) *Social Flow and Social Re-form: "Zhejiang Village" Research*, Zhejiang People Press, China.
- Wei J. (1995) *Rural People Flow in China since Reform and Opening*, in Yi D. and Shao Q. *State and Management of People Flow in China*, China People Press, Beijing.
- Wang, C.G. (1995a) *Social Mobility and Restructuring - A Case Study of Beijing's Zhejiang Village*, Hanzhou: Zhejiang Remin Chubanshe (Zhejiang People's Press).
- Wang, C.G. (1995b) "Communities of Provincials in the Large Cities: Conflicts and Integration", *China Perspectives*, Vol. Nov./Dec.:2, pp.15-21
- Wong K.K. and Zhao X.B. (1999a) "The influence of bureaucratic behavior on land apportionment in China", *Environment and Planning C*, Vol. 17:2, pp113-126
- Wong, K.K. and Zhao, X.B. (1999b) "The Shrinking Farmland in the Pearl River Delta Region of China: The Institutional Factor", in Li, S.M. and Tang, W.S. (Eds.) *China's Regions, Polity and Economy: A Study of Spatial Transformation in the Post-Reform Era*, Hong Kong: The Chinese University Press.
- Xiang B. (1993) "There is a 'Zhejiang Village in Beijing': Initial Research of a Spontaneous Urbanization Crowds in Social Transform", *Urban Economic of Society and Social Investigation*, pp.3-5.
- Xang B. (1993) "Beijing has a Zhejiang Village - A Study on Spontaneous Social Transition of Urbanization", *Shehui Xue Yu Shehui Diaocha (Sociology and Social Survey)*, Vol. 3, pp. 68-74; Vol. 4, pp. 48-54, and Vol.5, pp. 51-54
- Xu Jiang and Yeh, A.G. O. (2003) "City profile: Guangzhou", *Cities*, Vol. 20, No.5, pp.361-374.
- Xu X. Q. (1987) *Development of Small city-town in China*, Zhongshan University Press, Guangzhou, China.

- Xu X. Q. & Li Y. (1988) "Initial Research of Non-native-born labour force and Urban Development A case study of Guangzhou", *Urban Problems*,
- Yeh, A.G.O. and X.Li (1997) "An Integrated Remote Sensing and GIS Approach in the Monitoring and Evaluation of Rapid Urban Growth for Sustainable Development in the pearl River Delta, China", *International Planning Studies*, Vol.2, No.2, pp.195-222.
- Yeh, A.G.O. and X. Li (1999) "Economic Development and Agricultural Land Loss in the Pearl River Delta, China", *Habitat International*, Vol.23, No.3, pp.373-390.
- Yeung, Y.M. and Hu, X.W. (1991) (eds.) *Chinese Coastal Cities: Catalysts for Modernization*, Honolulu, University of Hawaii Press.
- Zhao, X.B. and Wan, Z. (1995) "The Paths of Small Town Development in China: A Case Study in Dongguan, Guangdong", *Chinese Social Science Quarterly*, Vol. 11, No.2 pp.5-23.
- Zhao, X.B. and Zhang, L. (1995) "Urban Performance and the Control of Urban Size in China", *Urban Studies*, Vol. 32, Nos.4-5, pp.813-845.
- Zhu B. (1996) *From Li Tu Bu Li Xiang*, Eastern China Normal University Press, China.

Map 1:

THE DISTRIBUTION OF 'VILLAGES IN CITIES' IN GUANGZHOU



