CHINESE GEOGRAPHICAL SCIENCE Volume 8, Number 1, pp. 12–24, 1998 Science Press, Beijing, China

THE LAND RESOURCE AND LANDUSE OF HONG KONG^①

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ABSTRACT: The urban development is a decisive factor for the landuse of the territory of Hong Kong, as a realm of a world city. A speed-up change of the landuse structure of Hong Kong and some contradictions in the landuse have been revealed after a brief mentioning of the characteristics of the limited land resources of Hong Kong. Hong Kong consists of peninsula and islands dominated by hilly terrain in south subtropical zone, 84% of the total area is slope, unfavorable for urban and agricultural development, only 16% is small plains. The land is barren and water resource is very limited. Urban landuse is taken as the dominant factor. Due to the expansion of the scale of the urban development, and the limitation of the land resource, there is a high degree of the urban land utilization, but the proportions of commercial and industrial landuse are not high, only 1.3% of the total developed land is used for commerce, 6.0% for manufacture industries, the road and railway lands amount to 14. 6%. The great efforts were made in reclamation and construction of reservoirs in order to add land and water resources. The arable lands were reduced heavily and the farmlands were wasted seriously. The author proposed some view points on the present and future landuse in Hong Kong as follows: 1) the urban landuse remains as a guiding factor in the landuse of the whole territory of Hong Kong; 2) one of the problems is the fondness for the reconstruction of the old city, loosening up on the new town development; 3) the reclamation is not only very costly, but also causing some negative effects on the eco-environment; 4) the problem of the protection of the farmlands against wasting should be seriously; 5) the development and the landuse for the construction in Hong Kong should be considered with the relationship with the inland, especially Guangdong Province; 6) fully use the convenient condition of the territorial linkage of the city with the mainland, further to bring the role of the Shenzhen Special Economic Zone into fully play for solving the landuse problems in the development of Hong Kong.

KEY WORDS: Hong Kong, landuse, reclamation, land resource

Hong Kong locates at the east side of the mouth of the Zhujiang (Pearl) River, beyond the

① The author is very grateful to Dr. David K.Y. Chu and Dr. Roger Chan for their comments and to Professor Gu Chaolin and Mr. Hu Tianxin for their helps in data collection.

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Shenzhen River at a latitude between $22^{\circ}09' - 22^{\circ}37'$ N and at a longitude between $113^{\circ}50'$ and $114^{\circ}30'$ E with a width of 44 km from north to south and a length of 66 km from east to west (Wu *et al.*, 1990). The total land area of the Special Administration Region of China is 1095 km²(1997). It is important to learn the land resource and the features of its utilization for holding the direction of the urban development after its repatriation, assuring its prosperity and the social stability, better bring its roles into play and linking up the construction at the mainland side.

I. THE CHARACTERISTICS OF LAND RESOURCES

The land is a terminal of the South China hilly terrain in the South China Sea. The hills and mountain ranges are rising and falling over almost the whole area. Eighty-four percent of the total area consist of slopes, unfavorable for urban and agricultural development. Only 16% of the remaining parts are of small plains (Wu et al., 1990). The mountain ranges of huaxi-ashi pattern spread over the whole land area. The main trend of the ranges keeps a direction of NE-SW. The highlands are dispersed widely. The commanding height in Hong Kong Island is with an altitude of 554 m at Victoria Peak. The highest peak in Kowloon and New Territories is Tai Mo Shan with 958 m. The Lantau Peak is 934 m high in the largest island of the Hong Kong Special Administration Region. There formed a large peninsula and 238 islands with zig zagged coast lines due to the complicity of the terrain and the repeatedly crustal movement (elevating and subsiding) (Wu et al., 1990). The area of the peninsula is 802 km², consisting of 73.4% of the total and the remaining 290 km² are the amount of the all areas of the islands, accounting for 26.6% of the total.

The annual precipitation is about 2 300 mm. But the groundwater is not plentiful; and there is lack of a large river bringing a great amount of water (the longest one is the Shenzhen River at the boundary with a length about 20 km). Therefore, the local fresh water resources could not meet the needs of the growing city with 6.3 million population.

The land boundary has a length only 26 km. The zigzagged coat lines of the territory are 870 km long. Among them more than 70% of the total length are of rocky steep slopes, and other 30% are of muddy beaches. The variety of the coasts including bays, inlets, channels, peninsula, capes and islands creates favorable conditions for marine transportation and fishery. The Victoria Harbour between Hong Kong Island and Kowloon Peninsula is one of the three best natural deep water harbours in the world (the others are in San Francisco and in Rio de Janeiro). Victoria Harbour locates in the middle of the west rim of the Pacific Ocean, backing on the mainland of China and connecting the richly endowed Zhujiang River Delta. The superior location of the harbour exerts a tremendous influence on the development of the ports and the economy of Hong Kong. Meanwhile mud beaches have been developed at some hidden sections of the coasts, where tide is weak and deposition holds a dominant position. Mangroves are growing under the specific conditions of the mud beaches of Hau Hoi Wan in the northwest cor-

ner of the territory.

The area of Hong Kong Island is 76 km². The Island is the initial growth place of the metropolis. The major range on the precipitous rocky island runs from east to west. Along the north coast of the island is a long narrow plain. There formed many busy commercial districts, such as Sheung Wan, Central District, Wan Chai, Causeway Bay etc. There are very few plains which could be developed for urban construction in Aberdeen and Wong Chuk Hang at the south side of the island. The largest island in the Special Administration Region is Lantau Island, to the west from Hong Kong Island. The former has a double size of the later. There are the mountains higher and more steep than that in Hong Kong Island, but much fewer plains. Only some small valleys locate by the ends of streams such as Mui Wo, Shek Pik, Tung Chung, etc.

II. THE FEATURES OF THE LANDUSE

1. Taking the Urban Landuse as the Dominant Factor

The share of the arable lands account for only 1/3 of the urban built-up lands. The wood-lands, grass and scrub dominantly cover the suburbs (Fig. 1).

Hong Kong is poor in natural resources, but has fine natural harbours and advantageous geographical location, backing on the motherland and being a trade hub in the Far East. The landuse of Hong Kong, as a world city, should submit to the necessity of the urban development.

The urban development is mainly taking place along the both sides of Victoria Harbour at the north coastal plain of Hong Kong Island, at Kowloon Peninsula and the south coastal areas of New Territories in the vicinity of the Peninsula. Until the end of the 1960s the construction of the city had sprawled in the urban fringes. Afterwards the new town development had started in the places of Kwun Tong, Tsuen Wan and Tuen Mun along the south coast of New Territories, and then it extended to Sha Tin, Yuen Long, Tai Po, Fan Ling and Sheung Shui, now it is taking place in remote places like Tseung Kwan O, Tin Shui Wai, Tung Chung and Tai Ho. The opening of a tunnel crossing Lion Rock at the north side of Kowloon in 1969, then the completion of the construction and electrification of the double track railway, the construction of light tracks and new ring road etc., all these have made the contacts between the downtown and the suburbs easier. So that the new towns like Sha Tin, etc. have grown faster. By the end of 1995 the urban built-up areas had covered 229. 3 km², accounting for 21.0% of the total land area of Hong Kong (Table 1). The arable lands including paddy field and other cultivable lands, vegetable gardens and orchards, amount to 78.62 km², which consist of 7.2% of the total area. The arable lands are mainly concentrated in the Northwestern New Territories such as Yuen-long Plain, Castle Valley (Tuen Mun) and Shek-kong Plain, etc.

Among the non-built-up lands the lands under grass, scrub and wood consist of 67.9% of

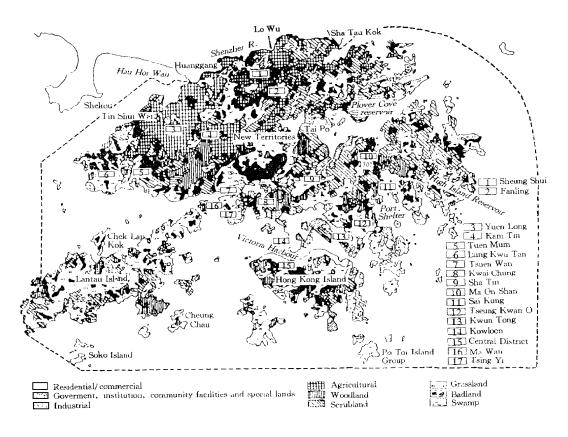


Fig. 1 The landuse map of Hong Kong (Chen, 1996)

the total area of Hong Kong. That reflects the land feature of the dominance of hilly topography. According to the Hong Kong's Territorial Development Strategy the important places with high ecological values (such as the internationally recognized Maipo Marshes near Hau Hoi Wan), the ecologically sensitive places (such as the places in the southern Lantau Island and the southeastern New Territories), the places with nice landscapes, the very unique one is the upland landscape of Saikung Peninsula stretching into the Port Shelter) and many other country parks etc.

2. Highly Intensified Urban Landuse, Low Proportions for Industrial and Commercial Utilization, More Share of the Land for Transportation and Communication

Due to the expansion of the scale of the urban development, and the limitation of the land resource, there is a high degree of the urban land utilization in Hong Kong. It is one of the metropolis with highest building density in the world. The built-up high-rise buildings are usually used for multiple utilization in the different floors such as for commerce, office work and residence. The multistory factory buildings with separate floors are leased to different firms en-

gaging in different industries.

Table 1 The structure of the land use of Hong Kong (%)

Class	1980	1995	Change during the 15 years
Developed lands	15. 7	21.0	+ 5.3
Woodlands	20. 7	20. 2	- 0.5
Grass and scrubs	49. 9	47. 5	- 2.4
Badlands	4. 3	4. 0	- 0.3
Swamp and mangrove	#	0. 1	#
Paddy fields	#	#	#
Vegetable gardens	3.0	1. 5	- 1.5
Other arable lands	0.7	0. 6	- 0.1
Fallow and wasted farmland	4. 0	3. 6	- 0.4
Fish ponds	1. 7	1. 5	- 0.2
$Thetotal(km^2)$	1061	1092	+ 31.0

[#] the percentages are less than 0.05%.

Source: The Planning Department, Hong Kong Government (1992, 1996).

The proportions of both the commercial and industrial landuses are not high in the well-known commercial and industrial metropolis. Only 1.3% of the total developed lands are used for commerce, and 6.0% for manufacture industries. The road and railway lands amount to 14.6% of the total developed lands. It ranks second only after the residential areas (including the all residential houses, public rental housing estates and temporary housing areas) (Table 2), which consist of 33.7% of the total (The Planning Development Hong Kong Government 1992, 1996).

Table 2 The structure of the developed urban lands of Hong Kong (1991)

Categories	Areas	The proportion from	R emarks	
	(km^2)	the total ($\%$)		
Commercial	2	1.3		
Residential	41	27. 2	Including all residential areas, except public rental housing estates and temporary housing areas.	
Public rental housing	9	5. 9		
Industrial	9	6. 0	Including warehouse and storage.	
Open space	14	9. 3		
Government, institution and community facilities	16	10. 6		
Vacant development land	37	24. 5	Including land with construction in progress.	
Roads/ railw ays	22	14. 6	Including flyovers and railway lands.	
Temporary housing	1	0.6		
T he total	151	100.0		

Source: The Planning Department, Hong Kong Government (1992, 1996).

Although Hong Kong is known as a "shopping paradise", but the commercial lands do not make up a big proportion of the urban landuse, because the distribution of the markets is highly concentrated and the street pedlars are much more than that in western cities (Simmons *et al.*, 1992).

Industrial lands mainly took place in Kwun Tong, Tsuen Wan (including Tsing Yi Island nearby, where are ship building and the auxiliary industries for ocean shipping), Tuen Mun, New Kowloon, Sha Tin and Tai Po. In Aberdeen can see some industrial concentration as well. Some odd pieces of industrial lands are distributed in other islands, such as the thermal power plant and mills producing building materials in Lamma Island, fishing-ship building, freezer manufacturing and aquatic products processing in Cheung Chau and pleasure boat manufacturing in Lantau Island etc. Hereafter some new industrial development will take place in Kowloon further, in some places of West Kowloon, Lung Kwu Tan near Tuen Mun, Tseung Kwan O and Ma On Shan and so on of New Territories, in Tai Ho and as so near the new airport (Chek Lap Kok) and new sea-port (Lantau Port).

The feature of the urban development is of a concentric pattern: the urban core is the Hong Kong-Kowloon central business district with Victoria Harbour in the middle; the traditional commercial areas, the lands of government offices and social institutions with some mixed industrial plots have formed the first zone (zone in transition); the outward are the residential areas forming the second and third zones. At hill-side of Hong Kong Island and Kowloon Tong are the residential areas for the rich people where they get more refreshed air and light, in contrast to that are crowded and simple houses, even sheds along the hill-foot. There has remained a feature of the formal colonial city. At last, in the fourth zone are the settlements for the commuting low-income residents.

In the coming future the outward transportation hubs of the city will develop westwards. The new airport at Chek Lap Kok (with a ultimate annual capacity of 87 million person-times) under construction will replace the Kai Tak Airport completely. The Lantau Port will function as a major port for the container-shipping instead of Kwai Chung Port. In the West New Territories the North Lantau Expressway and Airport Railway in the South and the Western Corridor Railways and Highways in the North all will be built up soon to meet the new development situation both for its own domestic needs and for the development of the broader region in the mainland. Tin Shui Wai, a new terminal of the Western Corridor Railways and Highways, will have a ferry service to Shekou, Shenzhen across Hau Hoi Wan. So that two growth axes along the new main lines of transportation will be formed: one is old urban centre (from both sides of North Hong Kong Coast and West Kowloon Coast) – North Lantau Coast – Chek Lap Kok Airport, and the other is old urban centre – Western Corridor (via West Kowloon – Kam Tin – Yuen Long – Tin Shui Wai/ Lo Wu/Tuen Mun). The development of the joined section of the two lines. Kwai Chung – Tsing Yi/Tsuen Wan, will be enhanced.

Table 3 shows the planned figures of the areas and the population of the metropolitan area and the new towns by the year of 2011.

Table 3 The planned figures of the areas and the population of the metropolitan area and the new towns (the year 2011)

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Town	Area (km²)	Population (× 1000)	R emarks
M etropolitan area	207. 5	4 200	Including Hong Kong Island, Kowloon, New Kowloon
Tsuen Wan	24. 4	710	
Sha T in	20. 0	620	
Tuen Mun	18. 5	480	
Tai Po	11.5	275	
Yuen Long	11.7	205	
Fanling- Sheung Shui	7. 4	220	
Tseung Kwan O	10.8	445	
Tin Shui Wai	4. 5	140	The ultimate population size will reach to 200 000- 260 000
North Lantau Island	7. 6	200	The main development is in Tung Chung and Tai Ho. The ultimate population size will reach to 260 000
T he T ot al	323. 9	7495	The ultimate population will about 7.6 million

Source: The Planning Department, Hong Kong Government (1992, 1996).

The Great Efforts Made in Reclamation and Construction of Reservoirs for Adding Land and Water Resources.

3.1 Reclamation(Luo, 1994)

Hong Kong is short of land for urban development. The lands, aside of Victoria Harbour in Hong Kong Island and Kowloon Peninsula as the original growth places of the city, have very few gentle areas with the slopes of less than 20%. The overwhelming majority of the terrain with the slopes of 20% – 33.3%, even 50%. Therefore, the urban development and the transportation constructions have taken the land plots by reclamation even since the first year of the urban development (January 1841 at Possession Point). This is exactly what the reclamation engineering has guaranteed the development and the prosperity of Hong Kong for the last one and half centuries.

There are physical conditions for the reclamation in Hong Kong: firstly, the coasts are of hilly drowned valley, winding and zigzagging, and the capes forming some natural protective screens helpful for reclamation; secondly, the tide range in Victoria Harbour is not high and the depths of the water near the shore are usually less than 10 m and in some places the islands are helpful to reclamation, resisting the tides; thirdly, the geological structure of Hong Kong is dominated by volcanic rocks, which is easy to be weathered and exploited.

The reclamation engineering and the sales of the plots are monopolized by the Hong Kong

Government. Since 1851 the legislation has prohibited private occupation on coastal plots and make interests from that. The profits from the sales are usually 3 times of the costs. The profits make up the major parts (about 45%) of the financial resources for the government.

The reclamation planning has started since 1855 to meet the needs of the continuing urban development. The scale of reclamation at the early years was rather small. The reclaimed area was 6.4 ha annually on an average during the period of 105 years before the World War II. Since the 1950s there was happening a speed-up urban development with enlarging scales of the construction. The reclamation engineering has conducted on the basis of the whole territorial planning. The engineering projects have become enlarging gradually. The average annual scale of the reclaimed area was 418 ha and totaled to 31 km², consisting of almost a half of the total newly increased built-up areas (62.7 km²) during the last 15 years (1980–1995). During the time of one and half centuries the accumulative total of the reclaimed areas until 1994 was 55 km², consisting 1/5 of the urban built-up areas and 5.3% of the total land areas of Hong Kong.

Mainly the reclamation takes place in the central urban areas (Fig. 2). The existing long and narrow northern coastal plain in Hong Kong Island with a length of 17 km and a width of 200–1000 m mainly has been formed by reclamation. For example, the lands of the most busy districts in the island along Queen's Road, Des Voeux Road and Connaught Road in order from south to north were obtained by reclamation. The major reclaimed areas in Kowloon and New Territories are distributed at Kwun Tong, Kwai Chung, Tsuen Wan and Tsing Yi, Tuen Mun, the Shing Mun River Valley, Tai Po and Tseung Kwan O etc.

The new Chek Lap Kok Airport at the island (the area of the island will be enlarged from 3.02 km² to 12.5 km², equal to 4.3 times that of the Kai Tak Airport) and the Lantau Port, both are under construction, and the related transport and urban development are also mainly relying on reclamation. According to the needs of both economic and urban development, the reclamation will go on under the condition of possibilities. As the government has estimated, the population will increase to 7.11 million at the beginning of the next century, and the ultimate accommodation capacity is 9.5 million. Therefore, 44 km² new lands are needed.

It is necessary to mention that, the hillside fields have to be under development in the meantime of the reclamation on a large scale. The development of the hillside and peak fields in the Hong Kong Island had reached to a certain scale up to the beginning of the 20th century. The hillside fields behind Kwun Tong and Tsuen Wan in the southern part of the New Territory have been gradually developed, building residential houses. Therefore, a unique landscape of the port city with the features of a mountain city has been shaped up. The citizens, living in the downtown areas can easily get to the recreational places by "one step" to the sea or "one step" to the mountains.

3.2 To build reservoirs

The water consumption in Hong Kong is mainly relying on the supply from the mainland. The volume of the supplied water from the mainland consists 2/3 of the consumed water here.

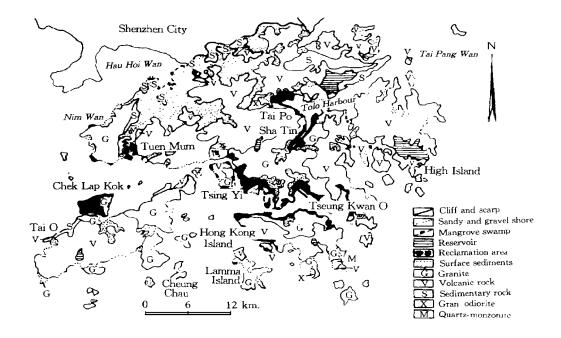


Fig. 2 The map of the reclamation areas in Hong Kong (Luo, 1994)

Relying on the collection of the rainfalls, the local water supply consists 1/3 of the consumption. For raising the degree of the self-sufficiency of water supply , the first Pok Fu Lam Reservoir (with a capacity of 231 000 m³) was built up in 1877. When the population had become over 3 million at the beginning of the 1960s, a programme of large scale construction of reservoirs has been carrying out. Up to now 18 reservoirs have been completed with a total capacity of 586 million m³. The total catchment area of the reservoirs is more than 370 km², consisting of 1/3 of the total land of Hong Kong. There are two largest reservoirs at Plover Cove (near Tolo Channel) and at High Island, completed in the 1970s, with a capacity over 200 millions m³ each. These two reservoirs are "the reservoirs in sea", building dams to close bays, pumping out the seawater, cleaning and deepening the seabeds, and then to collect and store the rainfalls there. The reservoirs with a capacity over 1 000 – 2 000 m³ each are at Shek Pik (in Lantau Island), Tai Lam Chung and Shung Mun (in New Territories). The areas under the reservoirs amount to 26 km², consisting of 2.4% of the total land area of Hong Kong.

4. The Arable Lands Reduced Heavily; the Farmlands Wasted Seriously

Due to the restriction of the topographic conditions, there are not much arable lands in Hong Kong. The area of the arable lands is only 67 km² (Chiu *et al.*, 1985). Under the situation of fast economic growth and urban expansion the arable lands has been reduced sharply. During the years of 1980–1995 the area has reduced by 20 km², being 1/4 of the existing total

arable area. The sectorial the spatial structures of the agriculture have changed greatly.

Before the World War II, the sectorial structure of the traditional agriculture of Hong Kong was similar to that in South China. Grain production dominated in the agriculture, horticulture, producing vegetables, fruits, flowers and plants, was in subordinate status. In the postwar period, especially during the last 30 years, the sectorial structure of the agriculture has had tremendous changes along with the industrial, commercial and urban development. For instance, the area of paddy fields made up more than 70% of the total area of the farmlands in 1954, but it has been almost disappeared completely up to now. A structure of the suburban agriculture, mainly for supplying fresh foods to the local dwellers, has been formed with the dominant production of vegetables, meats, fishes (including that for display), flowers and plants. At present time, the degrees of self-sufficiency of the agricultural products in Hong Kong are as follows: vegetables—35%, edible mushrooms—70%, poultries—39%, pigs—17%, freshwater fishes—12% and sea fishes—88%.

The vegetable gardens are mainly concentrating in Tai Po and Yuen Long. Some of them are distributing in Sha Tin, Tsuen Wan, Lantau Island, Lamma Island, Han Hau, Sai Kung, Ha Tsuen and even at some corners in New Kowloon and Hong Kong Island. The orchards are more scattered. Poultry raising has become industrialized, intensive farming. Almost the whole process is undergoing indoor. The enterprises are mainly distributed on the hillside around the Yuen Long Valley. Milk-cow breeding had been shifted to Shenzhen.

Although the government is encouraging to invest in agricultural landuse for keeping cultivated lands and fish ponds in recent years, but the farmlands have been wasted in a big amount, so the scale of the agriculture has been shrinking dramatically. Now the area of the wasted land is a half of the existing farmland approximately (1995).

Fish ponds have increased considerably since the second half of the 1960s. They are mainly distributed in Yuen Long region with the concentration at Wang Chau, Nam San Wai and Tin Shui Wai, where the low-lying land near Hau Hoi Wan can be dug for fish ponds. Other fish ponds are gathered in San Tin, Sha Tau Kok, Sha Tin, Sai Kung, etc. Since the 1980s a raising base of cultured fishes for display has been founded at Sheung Shui near Shenzhen. Now adays the fish ponds totally occupy 16 km² of the land, approximately 1/4 of the total farmlands.

The seawater aquiculture (raising crabs, oysters and fishes) has initiated since the beginning of the 1970s. The aquiculture fields are widely spreading over in every calm bay. Eight fishing regions with 28 seawater aquiculture districts have formed. The aquiculture fields are mostly distributed in the North West New Territories along Hau Hoi Wan and along the eastern coast of the New Territories at Sha Tau Kok, Kat O, Sham Wan, Rocky Harbour, Tai Tau Chau, Ma Nam Wat, Kai Lung Wan and Zong Long.

The number of the fishermen, engaging in fishing in sea or ocean, has reduced from 50 000- odd to 20 000 since the end of the World War II. But the catch volume had increased 9.8 times from 1950 to 1987, thanks to the modern catch equipments. The majority of the fish

ports are located at Aberdeen, Shau Kei Wan, Tai Po, Castle Peak Bay, Cheung Chau, Tai O, Sai Kung, Sha Tau Kok, etc.

III. SOME POINTS OF VIEW ON THE PRESENT AND FUTURE LANDUSE IN HONG KONG

- (1) The urban landuse remains as a guiding factor in the landuse of the whole territory of Hong Kong. It is due to the territory of Hong Kong has been a highly urbanized area, the city has become a world city with global economic effects. Since the middle of 1997 China has resumed to perform the sovereignty over Hong Kong, and promised to ensure its economic prosperity and social stability under the condition of high degree of autonomy, keeping the social regime unchanged for a long period of a half century. For maintaining and developing the economy and the functions of Hong Kong, it is necessary to guarantee the landuse for the urban development.
- (2) One of the problems in the urban development is the fondness for the reconstruction of the old city, loosening up on the new town development. It is a reflection of the lopsided consideration of the British Hong Kong government on the current economic interests in the urban construction. Since the issue of the Sine-British Joint Declaration on Hong Kong in 1984 and fixing the date of the repatriation of the city to China in 1997, the British Hong Kong Government has returned back to put focal point on the development of the old city for getting more income as possible from the development of the land (a half of the profits from the sales of the plots have to be turned over to the government). According to the Joint Declaration the quota of the land area for sales by the government during the transition period is no more than 50 ha annually. But the actual situation is beyond the quota in the recent years: 120. 7 ha in 1991, 159. 3 ha in 1992 (Yan, 1996). To sell the reclaimed plots along the both sides of Victoria Harbour in the old city can get much more profits than to develop new lands in new towns (Wu et al., 1990). So they do in line with the immediate interests. However it makes the heavy crowding even worse in the over developed old city.
- (3) The reclamation is not only very costly, but also causing some negative effects on the eco-environment. Therefore the Way of Solving the Problem of the Urban Landuse Shortage Will Not be Endless. The massive reclamation results in greater unbalance in the natural ecology. The soil erosion, landslide and subsidence cause the damage of houses, installations and facilities, silting-up the sea ports, narrowing the channels, surging the waves, which are all influencing the safety of navigation. As a results the damage of mangrove beach and polluting the sea (both water and bed load) are happening. Up to now the area of Victoria Harbour has shrunk off by 1/3 (more than 20 km²) of the original size. The width of the 9-km-long Harbour has been reduced from 1 700–3 700 m to 700–1 200 m. So the former broad maritime space looks like a section of a river. It is pity, that Hong Kong has lost the landscape of a seaport city (Luo, 1994).

- (4) The problem of the protection of the farmlands against wasting should be taken seriously. Despite the urban landuse is a dominant factor in the landuse of the whole territory of Hong Kong and the agriculture is a weak sector in the local economy, making low income comparatively, the agrarian economy should be developed and the limited, increasingly shrinking farmlands should be protected conscientiously. That should be done for the following reasons: first, Hongkong nese keep high food consumption level (here is one of the places, consuming most fruits and protein in the world) and fastidious about the freshness, and the numerous tourists demand a large quantity of fresh foods too; second, a large agrarian green area will play an important role in improving the urban ecological environment. There will be a great potential for enlarging the scale of the agricultural production, the local natural conditions such as light, heat, moisture and soil and agricultural resources if are fully utilized. For this purpose the measures for actively developing recreational farming could be deliberated. This kind of farming is adaptable to the modern urban dwellers. They like to engage in gardening in the suburbs. To attract the urban dwellers to farm is a feasible way for reducing the wasted lands. At the same time we convince that, after 1997, the Central Government will pay more attertion to the development of the agriculture in Hong Kong. The state and the local governments of the provinces and municipalities will help to do so with labours and technical competence.
- (5) The Development and the landuse for the construction in Hong Kong should be considered with the relationship with the inland, especially with Guangdong Province. With the increasing of the economic linkages of Hong Kong with the inland (especially the major parts of the manufacture industries and the suburb agriculture of Hong Kong have been transferred to Guangdong and other parts of the inland), the trends of the revising the economic structures in the inland, particularly in Guangdong should be considered, when constructing or extending the industrial and office buildings, airport, sea-ports, railroads, highways etc. in Hong Kong. The scale and speed of the development of the different landuses in the city should accord with the economic circumstances in the inland.
- (6) Fully use the convenient condition of the territorial linkage of the city with the country's mainland, further to bring the role of the Shenzhen Special Economic Zone into full play for solving the landuse problems in the development of Hong Kong. It is necessary to deepen the reform of the system in Shenzhen for accelerating the conformation of it self to the mechanism of the functions of Hong Kong, and finally to integrate the economy of the two cities. Not only the infrastructure like transport and communication, but also the urban functions of the two cities should be adjusted. The urban landuses of the two cities could be organized supplementally each other in favour of Hong Kong to break down the limitation of the land shortage (The City Planning Group, Shenzhen Municipal Government, 1996).

Since the practising the policies of reform and opening to the outside world for almost 20 years, the compatriots from Hong Kong have increasingly invested in industries, bought properties, resided and gone vacationing in Shenzhen. The area of Shenzhen (2020 km²), being approximately a double size of that of Hong Kong, has more latent capacity for further develop-

ment. Therefore, the city is not only a "window" or an experimental place of the country for opening up to outside of the world, but also could be a first tentative socialist part of "Hong Kong".

REFERENCES

- Chen Zhengqing (chief editor), 1996. The Atlas of Hong Kong. Chengdu: Chengdu Cartographical Publishing House. (in Chinese)
- Chiu Tze-Nang, C. L. So, 1985. The Geography of Hong Kong. Guangzhou: Guangdong Science and Techniques Publish House. (in Chinese)
- Luo Zhangren, 1994. An analysis of the reclamation in Hong Kong. In: The Economy in the Pearl River Delta, 25-32. (in Chinese)
- Simmons J., Chan, K. W., 1992. The Retail Structure of Hong Kong, A Working Paper of CUPEM, University of Hong Kong.
- The Planning Department, Hong Kong Government, 1992, 1996. The Basic Data for the Urban Planning of Hong Kong, Hong Kong.
- The City Planning Group, Shenzhen Municipal Government, 1996. To link up the urban infrastructure of Shenzhen and Hong Kong, create further prosperities in the both cities. Chinese and Foreign Real Estate Times, (16): 23-24. (in Chinese)
- Wu Yuwen, Zheng Tianxiang et al., 1990. The Economic Geography of the Hong Kong and Macau Regions. Beijing: Xinhua Publish House. (in Chinese)
- Yan Jianhong, 1996. The landuse managerial system in Hong Kong. Chinese and Foreign Real Estate Times, (20):35. (in Chinese)