

Explaining Land Use Change in a Guangdong County: The Supply Side of the Story*

Yew Chiew Ping[†]

ABSTRACT The conversion of land to non-agricultural use in China has often been attributed to the demand for land arising from urbanization, that is, a growing urban population and the shift from agricultural to industrial activity. With a focus on Sihui 四会, a county in Guangdong, this study explains land use conversion from an alternative perspective: by looking at the supply of agricultural land for conversion and what determines this supply. It gives precedence to the role of the central actors in the process – local officials – and suggests that the extent to which agricultural land is converted for non-agricultural purposes is determined by an array of structural and agential factors, including the fiscal and land resources at the disposal of local officials, the incentive structure and macro-processes which influence their decision.

China saw rapid expansion in the area of land used for human settlements, industrial and mining sites from 1949 to 1996. According to Lin and Ho, this expansion of land for construction had taken place at the expense of agricultural and unused land, among which the loss of cultivated land (*gengdi* 耕地) was most acute. Based on an analysis of the 1996 nationwide land survey results, it was estimated that around 80 per cent of newly acquired land for construction was converted from cultivated land.¹ Much of this converted cultivated land was requisitioned from peasant collectives. Of the 2.26 million hectares of cultivated land converted to non-agricultural use from 1987 to 2001, it was estimated that 70 per cent or 1.58 million hectares was collectively owned land requisitioned by the government.² As of 2007, China's cultivated

* Fieldwork for this study was partly funded by the National University of Singapore's Graduate Research Support Scheme. I am grateful to Lin Kun-Chin for very helpful comments, and Yan Jianhui and Wong Wai Han for research assistance.

[†] East Asian Institute, National University of Singapore. Email: eaiycp@nus.edu.sg

¹ George C. S. Lin and Samuel P. S. Ho, "China's land resources and land-use change: insights from the 1996 land survey," *Land Use Policy*, No. 20 (2003), p. 97.

² "Shui guanxin shidi nongmin de mingyun?" ("Who will care about the fate of landless farmers?"), *Zhongguo jingji shibao* (*China Financial News*), 9 May 2003. One *mu* is equal to 0.067 hectare.

land per capita had fallen to 1.39 *mu* or 0.093 hectare, which is only a third of the world's average.³

Some may contend that the extensive conversion of agricultural land for construction is hardly surprising given China's rapid urbanization since the late 1970s. In under a decade, urban population increased from 215.7 million in 1982 to 314.4 million in 1990, then to nearly 470 million or 37 per cent of the entire population in 2000.⁴ The demands of a growing population have fuelled the taking of agricultural land for urban development such as housing and other infrastructure.⁵

Yet alongside this urban spatial expansion propelled by demographic changes, a different path of urbanization has been observed since the mid-1990s. Instead of being driven by the needs of a larger urban population, city expansion is motivated by land finance (*tudi caizheng* 土地财政), whereby local governments raise revenue and attract investment through land leasing and land development that necessitate the extensive conversion of agricultural land.⁶ Lin, for instance, suggests that land sale or, more precisely, the leasing of land use rights, which constitutes 30 to 70 per cent of local revenue in many Chinese cities, has become a vital source of capital for urban development. "This new 'land-centred urban politics'," he argues, "has been correctly identified by many urban researchers as one of the most important driving-forces operating behind the spectacular expansion of cities, particularly large cities, and the upsurge in city-forming urbanization since the mid 1990s."⁷

In view of these two concomitant processes of urbanization in China, it may be argued that attributing the conversion of agricultural land to the demands of urbanization only tells part of the story. This study centres on the other part: the supply of agricultural land for conversion and what determines this supply. Since local officials are the key decision-makers empowered to manage and regulate the supply of land within the constraints of central policy, how they benefit from land use conversion is important to understanding the supply side of the

3 "Woguo tudi jiadi zhi duoshao?" ("How much do you know about our country's land assets?"), *Zhonghua renmin gongheguo guotu ziyuan bu* (*The Ministry of Land and Resources PRC*), <http://www.mlrf.gov.cn>, 20 November 2007, accessed 12 February 2008.

4 See Shen Jianfa, "Estimating urbanization levels in Chinese provinces in 1982–2000," *International Statistical Review*, Vol. 74, No. 1 (2006), p. 95. The figures are calculated based on the 1982, 1990 and 2000 censuses and have been adjusted to include a non-*hukou* population.

5 See, for instance, Samuel P. S. Ho and George C. S. Lin, "Converting land to nonagricultural use in China's coastal provinces: evidence from Jiangsu," *Modern China*, Vol. 30, No. 1 (2004), pp. 81–112; Tan Minghong, Li Xiubin, Xie Hui and Lu Changhe, "Urban land expansion and arable land loss in China: a case study of Beijing-Tianjin-Hebei region," *Land Use Policy*, Vol. 22, No. 3 (2005), pp. 187–96.

6 Refer to George C. S. Lin, "Reproducing spaces of Chinese urbanization: new city-based and land-centered urban transformation," *Urban Studies*, Vol. 44, No. 9 (2007), pp. 1832–33; Liu Mingxing, Tao Ran, Yuan Fei and Cao Guangzhong, "Instrumental land use investment-driven growth in China," *Journal of the Asia Pacific Economy*, Vol. 13, No. 3 (2008), pp. 313–31. See also Liu Shouying, "Jingti tudi jingying chengshihua de caizheng he jinrong fengxian" ("Be wary of the financial risks in using land deals to promote urbanization"), *Lilun tantao* (*Theory Exploration*), No. 9 (2005), pp. 46–47.

7 Lin, "Reproducing spaces of Chinese urbanization," pp. 1832–33.

story. The central role of local state agents in supplying land is further augmented in the context of China, where the state monopolizes the supply of agricultural land for users who intend to use it for non-agricultural purposes.⁸

The main questions posed by this study are therefore as follows. What affects local governments' decisions in supplying agricultural land for conversion? And in what ways does the supply of agricultural land for conversion serve as an instrument for local officials to fulfil their objectives? This article argues that supplying agricultural land for non-agricultural use is a means through which local officials raise revenue and fulfil other career objectives. Fiscal recentralization since 1994 compels local governments to seek alternative revenue sources, and rural–urban land use conversion is a quick way to generate income. An expert sums up the attractiveness of urban land as an asset for governments and how public improvements boost land prices:

In countries where all urban land is owned by the public sector, land is by far the most valuable asset on the municipal balance sheet ... Urban land values are created in part by public investment. They reflect the capitalized value of access to road networks, water supply, schools and other services made possible by municipal investment. It is economically appropriate therefore for municipalities to capture part of the land-value increment they create through their investment. There are various ways that increases in urban land value can be captured, but the sale of land or land rights has the advantage of producing revenue quickly and being easier to administer.⁹

Besides generating revenue, local officials may use land to incentivize investments and promote industrialization. They may also expand the urban built-up area (*jianchengqu* 建成区) under their territorial jurisdiction and build infrastructure to expedite “urbanization.” Land development fuels GDP growth and conjures up highly visible political accomplishments: mega-scale construction projects labelled aptly as “political achievement projects” or “trophy projects” (*zhengji gongcheng* 政绩工程).¹⁰ In short, supplying agricultural land for non-agricultural purposes effectively allows the government to “kill many birds with one stone.”

Through a case study of a county in Guangdong, this article also looks into how local governments' supply of agricultural land for non-agricultural use is

8 In China's primary land market, the government holds a monopoly over land supply as the rural collectives that own land use rights to agricultural land are barred from entry. Land use rights of collectively owned land must be transferred to the state through land expropriation before conveyance to the land user can take place. There are, of course, illegal means of getting agricultural land directly from rural collectives or peasants through the black market. See Li Yin and Zhang Chengyong, “Tudi ziyuan peizhi zhong de ‘xunzu’ xianxiang jixi” (“An analysis of ‘rent seeking’ in the allocation of land resources”), *Nanfang jingji* (*Southern Economy*), No. 2 (1997), p. 13; Carolyn Cartier, “‘Zone fever,’ the arable land debate, and real estate speculation: China's evolving land use regime and its geographical contradictions,” *Journal of Contemporary China*, Vol. 10, No. 28 (2001), p. 458.

9 George E. Peterson, “Land leasing and land sale as an infrastructure-financing option,” *World Bank Policy Research Working Paper*, No. 4043 (2006), The World Bank, <http://www.worldbank.org>, accessed 12 February 2008, p. 3.

10 China's Ministry of Construction disclosed that around 20% of China's 662 cities and over 20,000 designated towns were culpable of “image engineering projects” (*xingxiang gongcheng*) such as huge squares, wide roads and luxurious office buildings. Xie Jianchao and Gong Chengyu, “Weifa kaifashang he guanyuan weihe wusuo guji” (“Why unlawful developers and officials are fearless”), *Zhongguo jingji shibao* (*China Economic Daily*), 11 April 2007, p. 16.

influenced by local conditions, in particular the fiscal situation and the distribution and/or availability of land resources. The study draws on the empirical evidence gathered during my fieldwork in Sihui 四会, a county-level city in Guangdong province, and Xiamao town 下茆镇 in Sihui. It relies on the analysis of documents and data collected during my visits in 2007 aided by additional information supplied by local informants and secondary research through Chinese journals and the internet. In particular, the locality's land use master plan (*tudi liyong zongti guihua* 土地利用总体规划) offers a quick glance into how land is distributed by usage in Sihui and its township level units over 15 years from 1996 to 2010.¹¹ Under China's land management system, approval for converting land to non-agricultural use, granted annually in batches by the next higher level of government, is tied to the approval for a locality's land use plan. The amount of cultivated land to be conserved and converted has to adhere strictly to that determined in the land use master plan and the annual land use plan at various administrative levels.¹² However, because local governments often disregard or find ways to circumvent the prescribed quotas through illegal land use change, city planning and "quota-buying," the land use quotas listed in the plan are verified against the actual situation where information from fieldwork and research is available.¹³

What follows is a brief introduction of Sihui, its development, fiscal and land resources. The article then looks into how a government-engineered urban sprawl in Sihui's city district has generated revenue for the local coffers. This is followed by an analysis of how agricultural land was supplied at competitive prices for "development zones" beyond the city district to draw investors. The article concludes by addressing the implications of its findings to alternative explanations of land use conversion and the applicability of this study to other localities in China.

Sihui's Geography, Land and Fiscal Resources

A county-level city in Zhaoqing 肇庆 prefecture, Sihui is situated on the north-western fringe of the Pearl River Delta (see Figure 1).¹⁴ The western wing of the Pearl River Delta comprises five prefectural-level cities including Zhaoqing and

- 11 Sihuishu guotu ziyuanju (Sihui city Land Resources Bureau), "Sihuishu tudi liyong zongti guihua tiaozheng shuoming" ("Explanation of adjustments in Sihui city's land use master plan"), April 2005.
- 12 Refer to The Land Administration Law of the People's Republic of China, ch. 3, art. 33; ch. 5, art. 44. Enacted in 1986, the Land Administration Law was revised in 1988 and 1998 and underwent minor amendments more recently on 28 August 2004, at the 11th Meeting of the Standing Committee of the Tenth National People's Congress.
- 13 Refer to Hsing You-tien, "Land and territorial politics in urban China," *The China Quarterly*, No. 187 (2006), p. 588; C. W. Kenneth Keng, "China's land disposition system," *Journal of Contemporary China*, Vol. 5, No. 13 (1996), p. 344.
- 14 Liu Weikeng, "Lingnan shezhi zuizao de liu xian zhiyi – Sihui" ("Sihui – one of the six counties set up the earliest in Lingnan's history"), *Lingnan wenshi (Lingnan Cultural History)*, No. 3 (2006), pp. 12–14. Sihui was administratively reclassified as a county-level city in November 1993. See "Sihui shi fazhan gaikuang" ("The general development of Sihui city"), Sihui government website, <http://www.gdsihui.gov.cn>, accessed 20 June 2007.

Figure 1: **Sihui's Location in Guangdong**



takes up half the total area in the Delta. Although 62 per cent of the population of the Pearl River Delta reside in the western wing, it has registered a slower growth than the eastern wing, producing only 31.6 per cent of the region's GDP in 2002.¹⁵

As of 2005, Sihui had a population of 430,058, of which agricultural population made up around 67 per cent and non-agricultural population 33 per cent. In 2005, net migration in Sihui was 2,404, with an outgoing migrant population of 8,717 and 11,121 incoming migrants. The county's GDP per capita was 12,891 yuan, about half that of Guangdong province but slightly higher than that of the entire Zhaoqing prefecture (see Table 1). Among Zhaoqing's county-level units that still have an agricultural population, Sihui is relatively industrialized. For instance, its GDP per capita was almost double that of neighbouring Guangning 广宁 in 2005; its industrial output was treble that of the latter.¹⁶

Of Sihui's total land area of 121,299 hectares, 89 per cent was agricultural whereas construction land and unused land took up around 8 per cent and 3 per cent respectively with a slight variation from 1996 to 2010.¹⁷ The geographic

15 Gu Chaolin, Shen Jianfa, Wong Kwan-yiu and Zhen Feng, "Regional polarization under the socialist-market system since 1978: a case study of Guangdong province in south China," *Environment and Planning A*, Vol. 33, No. 1 (2001), pp. 97–119.

16 See Wang Ronghua et al. (eds.), *Zhaoqing tongji nianjian 2006 (Zhaoqing Statistical Yearbook 2006)* (Beijing: Zhongguo tushu chubanshe, 2007), pp. 72–74, 89–90, 229–30.

17 Calculated from Appendix.

Table 1: Socio-economic Indicators of Sihui, Zhaoqing and Guangdong (2005 unless stated)

	Sihui	Zhaoqing	Guangdong
Population density (per km ²)	394	247	511
Non-agricultural population (%)	32.6	28	51.7
GDP per capita (yuan)	12,891	12,315	24,434
Composition of GDP by industry (2003)			
Primary	25.6	28	6.8
Secondary	48.5	34.3	47.9
Tertiary	25.9	37.7	45.3

Sources:

Yao Weiliang et al. (eds.), *Sihui nianjian 2004 (Sihui Yearbook 2004)*, p. 232; *Guangdong tongji nianjian 2009 (Guangdong Statistical Yearbook 2009)*, available at <http://www.gdstats.gov.cn/tjnj/c4.htm>, accessed 20 February 2010; Guangdong Provincial Bureau of Statistics (comp.), *Guangdong tongji nianjian 2004 (Guangdong Statistical Yearbook 2004)* (China Statistical Press, 2004), p. 84; *Zhaoqing tongji nianjian 2006 (Zhaoqing Statistical Yearbook 2006)*, p. 90.

landscape of Sihui is dominated by mountainous and hilly terrain. The northern and western regions, including the towns of Luoyuan 罗源, Weizheng 威整, Jianglin 江林, Huangtian 黄田 and Shigou 石狗, are mountainous while the towns in central Sihui – Xiamao, including Longwan 龙湾 which merged with it in 2003, and Longfu 龙甫 – are situated on hilly terrain and the river basin. Only south-eastern Sihui is an alluvial plain through which the River Sui 绥江 runs.

A large part of Sihui's land for construction thus falls within the south-eastern territory, which encompasses the city district spanning Dongcheng 东城, Chengzhong 城中, Zhenshan 贞山 and two other towns Dasha 大沙 and Xinjiang 新江. Together, the region takes up 20.4 per cent of the county's total land area and more than 40 per cent of its total land for construction. This contrasts with the mountainous northern and western regions, which take up half of the county's total land area and half of its agricultural land but less than a third of the total land for construction (see Appendix).

The Appendix shows a breakdown of Sihui's land use distribution by town and region. On paper, the county's land for construction increased modestly by around 700 hectares from 1996 to 2010. The gain is largely from the conversion of unused land which was reduced by around 600 hectares over the same period. Agricultural land declined slightly by 92 hectares. Comparing the regions, south-eastern Sihui registers a loss of agricultural land by 420 hectares and an increase in construction land by 535 hectares. In the central and eastern parts, the area of construction land actually fell by 136 hectares over these years.¹⁸ In the mountainous northern and western regions, which have 50 per cent of the county's total unused land, construction land decreased slightly by less than one hectare whereas agricultural land expanded by 332 hectares, mostly from the conversion of unused land.

¹⁸ The author's research and fieldwork in Xiamao town in this region uncovered countervailing evidence that suggests the area of construction land has been under-reported.

In today's Sihui, only one of the county's eight main development zones – the Wangtian 旺田 industrial zone in Huangtian town – is situated in the northern and western regions, where the mountainous terrain has contributed to lagging industrial development. Developing raw agricultural land on the mountains through the provision of electricity, water, roads and the levelling of sites (*santong yiping* 三通一平) is costly, a difficulty compounded by the county's perennial fiscal deficit. Since 1958, Sihui's expenditure has been greater than its revenue and it has had to rely on upper-level subsidies each year to achieve fiscal balance. From 1952 to 1985 the county received subsidies amounting to 75.34 million yuan from the prefecture and provincial governments,¹⁹ and from 1986 to 1993 it received a total subsidy of 55.1 million yuan.²⁰ After the implementation of the revenue-sharing system in 1994, Sihui's finances remained heavily subsidized by the upper-level governments. The city received tax revenue returns (*shuishou fanhuan* 税收返还) from the central government of around 50 per cent of what it remitted. On top of the tax rebates, it also received varying amounts of subsidy from upper-level governments each year, such as 95.9 million yuan in 2000, and 130.4 million yuan in 2004.²¹

In the past decade, Sihui officials have exploited their limited land resources to build numerous development zones in the less mountainous regions and engineer an urban sprawl in the city district located on flat plain. In the process, they have oversupplied agricultural land for conversion in these relatively accessible areas and converted more agricultural land to non-agricultural uses than allowed by the county's land use plan. The stark contrast between the developed city district of Sihui and the surrounding agricultural land is reflected in the satellite image in Figure 2.

To a certain extent, the government's supply of agricultural land has been driven by increased demand as traditional labour-intensive industries from the developed parts of the Pearl River Delta moved out of the region to make way for new industries from the late 1990s.²² The diffusion and relocation of industries from nearby Foshan 佛山, Guangzhou and Dongguan 东莞 has sparked off the setting up of development zones in Sihui. In 1999, for instance, five industrial zones – in the towns of Dongcheng, Chengzhong, Xinjiang, Longfu and Nanjiang 南江 – were set up to “seize the historic opportunity of the Pearl River Delta's industrial adjustment.”²³ The pace of industrial relocation quickened in 2001 when the Guangdong provincial government encouraged the relocation of some industries in the Pearl River Delta to the less developed eastern,

19 Sihui xian tongjiju (ed.), *Sihui xian 1950-1985 nian tongji nianjian* (*Sihui County Statistical Yearbook 1950-1985*).

20 *Sihui xian zhi* (*History of Sihui County*) (Guangdong: Guangdong renmin chubanshe, 1996).

21 Zhang Timing et al. (eds.), *Sihui nianjian 1998* (*Sihui Yearbook 1998*), p. 121; Yao Weiliang et al. (eds.), *Sihui nianjian 2002* (*Sihui Yearbook 2002*), p. 119; Yao Weiliang et al. (eds.), *Sihui nianjian 2005* (*Sihui Yearbook 2005*), p. 137.

22 Wang Xianqing, “Zhusanjiao chanye zhuan yi: di'erci langchao xia de jueze” (“Industrial relocation in the Pearl River Delta: making a choice under the second wave”), *Zhujiang jingji* (*Pearl River Delta Economy*), No. Z1 (1997), pp. 22–25.

23 Zhang Timing et al. (eds.), *Sihui nianjian 2000* (*Sihui Yearbook 2000*), p. 95.

Figure 2: **Satellite View of Sihui**

Source:

Downloaded on 29 April 2010 from TerraServer.

(colour online)

western and mountainous regions of the province to solve problems including labour shortage and land saturation.²⁴ In 2004, Zhaoqing was selected by the Guangdong government as the destination for foreign capital and the relocation of industries within the Pearl River Delta.²⁵

However, the conversion of agricultural land to accommodate relocating industries fails to account for the large areas of idle land that resulted. Urban sprawl in Sihui's city district has also outpaced the growth of its urban population. In other words, demand for non-agricultural land seems to have fallen short of its supply. The following sections seek an explanation for the incongruity by examining local officials' motivations in supplying and converting agricultural land for non-agricultural uses.

24 Yuefuban document no. 15 (2005), "Guangdongsheng renmin zhengfu bangongting guanyu yinfa Guangdongsheng gongye chanye jiegou tiaozheng shishi fang'an [xiudingban] de tongzhi" ("A notice from the Guangdong provincial people's government office regarding the promulgation of the measures for industrial restructuring in Guangdong [revised version]").

25 Deng Honghua, "Fanzhu sanjiao fazhan zhanlüe zhong de 'Zhaoqing xianxiang'" ("The 'Zhaoqing phenomenon' in the strategic development of the Pan Pearl River Delta"), *Taisheng (Voice of Taiwan)*, No. (2004), pp. 64–65; Liang Ganghua, "Zhusanjiao chanye jiasu xiang zhoubian 'shanzhuang zhuan'yi'" ("Pearl River Delta industries accelerating their transfer to surrounding regions"), *Zhonghua xinwenbao (Chinese News)*, 27 December 2007, p. K01.

Sihui's City District: Government Engineered Urban Sprawl

In China, city building fever, commonly termed *chengshi jingying* 城市经营 or “city building as a business” by Chinese media and experts, is characterized by the inordinate expansion of a city through the extensive requisition of land for property development and infrastructure construction, financed through bank loans, land leasing, or the collection of ad hoc fees from enterprises and society.²⁶ Such city building fever has gripped Sihui since the late 1990s, when there was a sudden expansion in the floor space of buildings constructed, from 224,747 square metres in 1998 to 314,091 square metres in 1999. This increased further to 354,375 square metres in 2001.²⁷ Over the past decade, there were two sharp hikes in government investment in capital construction. From 1998 to 1999, it grew nearly tenfold from 1.09 million yuan to 10.67 million yuan, and it more than doubled from 2001 to 2003, reaching a high of 22.48 million yuan in 2003.²⁸

Urban building, including an expansion of the city district, was part of the Sihui government's ambition to attain a level of urbanization of over 70 per cent by around 2010, financed through bank loans, private investments and subsidies from upper-level government while expropriating and amassing land. In 2004, the government announced ambitious plans to expand the city district to beyond 48 square kilometres in five years, with an urban population and non-agricultural population of over half a million.²⁹

Given that the designated area of construction land in the city district spanning Dongcheng, Chengzhong and Zhenshan is supposed to be 24.75 square kilometres or 2,475 hectares by 2010 as drawn up in Sihui's land use plan, the government's plan means that it will exceed the quota for construction land by 100 per cent or more. Even if all 4.56 square kilometres of unused land in the city district is occupied for expansion from 2000 to 2010, the government will still have to take up another 20 square kilometres of agricultural land to meet its urbanization target. Furthermore, even if city expansion encroaches into the adjacent Xinjiang town, the town has a total quota of only 4.58 square kilometres of construction land and 1.22 square kilometres of unused land from 2000 to 2010 which the government may utilize (see Appendix).

26 Sun Yongzheng, “Chengshi jingying de fengxian” (“The risks of running a city like a business”), *Shidachao (Trends of the Time)*, No. 2 (2003), pp. 36–37; Lin Jiabin, “Dui ‘chengshi jingying’ re de toudi yu sikao” (“Insight and reflection on the ‘urbanization business’ fever”), *Chengshi guihua huikan (Urban Planning Forum)*, No. 1 (2004), pp. 10–13; Terry G. McGee, George C.S. Lin, Andrew M. Marton, Mark Y.L. Wang and Jiaping Wu, *China's Urban Space: Development under Market Socialism* (London: Routledge, 2007), pp. 13–26. For a detailed account of the politics of urban land development, see Hsing You-tien, “Land and territorial politics,” pp. 575–91.

27 Lai Changda et al. (eds.), *Sihui tongji nianjian 1990-2001 (Sihui Statistical Yearbook 1990-2001)*, p. 195.

28 Zhang Timing et al. (eds.), *Sihui nianjian 1999 (Sihui Yearbook 1999)*, p. 256; *Sihui Yearbook 2000*, p. 233; Ren Caifang et al. (eds.), *Zhongguo chengshi tongji nianjian 1997* (Beijing: Zhongguo tongji chubanshe, 1998), p. 65; *Sihui Yearbook 2005*.

29 Zeng Guohuan (Sihui city mayor), “Sihuishi 2004 nian zhengfu gongzuo baogao” (“Sihui city government work report 2004”), speech at the third meeting of Sihui city's 13th People's Congress, 3 March 2004.

Evidence suggests that the urban sprawl in Sihui was not predicated on urbanization in the sense of a shift from agricultural to non-agricultural activity. Since it was reclassified as a county-level city in 1993, growth in Sihui's non-agricultural population had been slow. In 1994 it had a non-agricultural population of 110,500. This grew slightly to 123,009 or 31 per cent of its total population in 2000. By 2005 it was 140,339 or 32.6 per cent of its total population.³⁰ On the other hand, the urban built-up area of Sihui expanded from 19.2 square kilometres in 2000 to 23.7 square kilometres in 2006, growing by 23.4 per cent.³¹ With the enlargement of urban space from 1998 to 2004, population density in the city district of Dongcheng, Chengzhong and Zhenshan had also declined from 1,198 to 750 persons per square kilometre.³² Moreover, the composition of Sihui's GDP by industry has not changed significantly. From 1996 to 2003, the percentage of GDP contributed by the primary industry declined by less than 7 per cent.³³

It may be argued that Sihui's recent urban sprawl was driven by the profit motive, in particular the revenue generated from the real estate industry. Local governments have an incentive to promote the real estate industry because most of the tax revenues related to property development are local taxes.³⁴ Moreover, large sums are raised through land speculation when officials collude with property developers to manipulate prices through hoarding land or properties.³⁵ The numerous fees accompanying land development further enhanced its profitability.³⁶ Although the arbitrary levying and collection of fees is illegal, a substantial part of the government's takings from land has been derived not from direct taxes but from ad hoc fees under various pretexts.³⁷ In 2002, for instance, the Sihui Land Bureau alone collected 5.27 million yuan of administrative fees.³⁸

30 Zhang Timing *et al.* (eds.), *Sihui nianjian 2001 (Sihui Yearbook 2001)*, p. 519; *Zhaoqing tongji nianjian 2006*, p. 89; Ren Caifang *et al.* (eds.), *Zhongguo chengshi tongji nianjian 1995* (Beijing: Zhongguo tongji chubanshe, 1996), p. 47.

31 Wu Sheng, "2006 nian zhengfu gongzuo baogao" ("Government report 2006"), 17 March 2006, Sihui government website, <http://www.gdsihui.gov.cn>, accessed 16 May 2008.

32 *Sihui Yearbook 1999*; *Sihui Yearbook 2005*, p. 261.

33 Zhang Timing *et al.* (eds.), *Sihui nianjian 1998 (Sihui Yearbook 1998)*, p. 212; *Sihui Yearbook 2004*, p. 232.

34 Chen Xiao, "2005 nian: fangjia gongjian nian" ("Year 2005: tackling high housing prices"), *Zhongguo xinwen zhoukan (China News Weekly)*, No. 1–2 (2006), p. 22.

35 Zhang Xiaojing and Sun Tao, "China's current real estate cycle and potential financial risks," *China & World Economy*, Vol. 14, No. 4 (2006), p. 64; Xu Shuangmin and Mo Guangcai, "Fangdichan 're' zhong de difang zhengfu 'jingjiren' xingwei" ("The economic behaviour of local governments in the property fever"), *Changjiang luntan (Changjiang Forum)*, No. 5 (2007), p. 45.

36 See Zhang Hong, "Tudi zhengyong guocheng zhong de difang zhengfu xingwei fenxi" ("An analysis of local governments' behaviour in land expropriation"), *Zhonggong Zhejiang shengwei dangxiao xuebao (CCP's Zhejiang School of Party Committee Journal)*, No. 4 (2007), p. 68, for the miscellaneous fees pertaining to land transactions collected by various government departments.

37 Lin Shumin and Yang Xilian, "Woguo tudi shuishou tizhi gaige de sikao" ("Some thoughts on the reform of China's land tax system"), *Xiangzhen jingji (Town and Township Economy)*, No. 3 (2006), p. 58.

38 Lin Haokun *et al.* (eds.), *Guangdong guotu ziyuan nianjian 2003 (Guangdong Land Resources Yearbook 2003)* (Guangdong: Guangdongsheng ditu chubanshe, 2003), p. 401.

Through city expansion and infrastructure building, the Sihui government benefited from higher land prices and revenues. Its key strategy was to relocate its cluster of government offices to the periphery of the city district to create another “prime district,” a tactic often employed by Chinese governments to push up land and property prices artificially.³⁹ The new government buildings sit on 230,000 square metres of land in the newly constructed Sihui People’s Square, unprecedented in scale in Guangdong and about half the size of Tiananmen Square.⁴⁰ On one side is the 160,000 square metre Sihui International Jade Centre while across the square is the biggest shopping mall in Sihui, the Sihui Times Square, which is built on 60,000 square metres of land. Various high-end residential apartments and bungalows have also been built in the vicinity.⁴¹ Under construction behind the government buildings, for instance, is a 161,831 square metre housing estate equipped with residential, business, education and sports facilities.⁴²

This government engineered, land-centred “urbanization” has created a property boom and driven up the prices of surrounding land and property. From 2004 to 2005, investment in real estate more than doubled in Sihui.⁴³ In 2004, its land conveyance takings were reported to be 93.4 million yuan, equivalent to 98.6 per cent of total revenue from government funds that year. This rose to 113.25 million yuan in 2005.⁴⁴ From 2005 to 2007, newly added residential floor space registered a growth of 75.5 per cent from 158,400 to 278,000 square metres. The price of commercial housing in February 2008 supposedly rose to 2,560 yuan per square metre, more than double that of five years earlier. According to local residents, prices could be as high as 4,200 yuan per square metre or more for top-end residential properties.⁴⁵

Benchmark land prices published by the county government also register significant increases. Although listed prices may not reflect all actual transacted prices because public authorities are known to exchange suppressed land prices

39 See Liu Shan, “Zhengfu kaifashang shi chaodi de hengha erjiang” (“The government and property developers are partners in land speculation”), *Zhonghua gongshang shibao* (*Chinese Industrial and Commercial Times*), 5 June 2006, p. 3.

40 According to a local informant, the Square had taken over what were previously fish ponds and paddy fields.

41 Yu Yang, “Sihui tuxian ‘diwang zhi wang’ qianneng” (“Sihui reveals its potential to be a prime land district”), *Xijiang ribao* (*Xijiang News*), 5 December 2001.

42 “Woshi yipi zhongdian xiangmu jinxing jiancai huodong” (“A number of key projects launched in Sihui”), *Sihui dianshitai* (*Sihui TV Station*), 30 December 2008, available at <http://www.gdsihui.gov.cn>, accessed 14 March 2009.

43 Pu Xinmin *et al.* (eds.), *Guangdong tongji nianjian 2005* (*Guangdong Statistical Yearbook 2005*) (Beijing: Zhongguo tongji chubanshe, 2005), p. 546; *Zhaoqing Statistical Yearbook 2006*, p. 133.

44 Lin Haokun *et al.* (eds.), *Guangdong guotu ziyuan nianjian 2004* (*Guangdong Land Resources Yearbook 2004*) (Guangdong: Guangdongsheng ditu chubanshe, 2004), p. 469; Lin Haokun *et al.* (eds.), *Guangdong guotu ziyuan nianjian 2005* (*Guangdong Land Resources Yearbook 2005*) (Guangdong: Guangdongsheng ditu chubanshe, 2005), p. 317; Lin Haokun *et al.* (eds.), *Guangdong guotu ziyuan nianjian 2006* (*Guangdong Land Resources Yearbook 2006*) (Guangdongsheng ditu chubanshe, 2006), p. 378. See *Zhaoqing Statistical Yearbook 2006*, p. 165 for Sihui’s revenue in 2004 and 2005.

45 *Zhaoqing Statistical Yearbook 2006*, p. 148; “Woshi quannian xinjian zhufang 27.8 wan pingfangmi,” (“2,780,000 square metres of newly constructed residential houses in a year in our city”), available at <http://www.gdsihui.gov.cn>, accessed 15 May 2008. The average annual salary of workers was 16,096 yuan and that of peasants was 4,961 yuan in 2005. See *Sihui Yearbook 2005*.

for favours from private interests, they are nevertheless telling of broader trends and direction.⁴⁶ Within two years from 2005 to 2007, the government listed price of grade one land for commercial use in Sihui's city district had soared sevenfold from 240 yuan per square metre to 1,780 yuan per square metre; that of grade one land for residential use rose more than eightfold from 96 yuan to 840 yuan per square metre; while that of industrial land surged by 13 times from 32 yuan to 420 yuan per square metre. Prices of other grades of land within the city district also saw a close to tenfold increase or even more (see Table 2).⁴⁷ It had been estimated that land prices might rise to between 500,000 and one million yuan per *mu*, which will enable the government to recoup the millions invested into city building in the past years.⁴⁸

Actual prices of land for commercial and residential uses, at least for reported transactions, may also exceed the listed prices. In 2006, for instance, a tract of land of 17,081 square metres on the grounds of a resort hotel close to the Sihui People's Square was sold at 1,089 yuan per square metre through bidding to a Shunde 顺德 property developer.⁴⁹ Other highly lucrative land deals in 2007 include the auctioning of two parcels of land for commercial and residential use totalling 251,108 square metres, which were sold at 41 million and 354 million yuan respectively.⁵⁰ The parcel of land which was auctioned fetched a price of 3,774 yuan per square metre, far higher than the prices listed in Table 2.

Beyond the City District: Development Zone Fever and Idle Land

Alongside the property boom in the city of Sihui was the proliferation of development zones in townships and villages on the fringe of the city district and beyond. If the sale of land in the city district serves as a quick way to create a property boom that generates considerable revenue for local coffers, the supply of low-priced serviced land in less prime areas is an expedient means to attract industries.⁵¹ One

46 See George C. S. Lin and Samuel P. S. Ho, "The state, land system, and land development processes in contemporary China," *Annals of the Association of American Geographers*, Vol. 95, No. 2 (2005), pp. 411–36; Gong Ting, "Corruption and local governance: the double identity of Chinese local governments in market reform," *The Pacific Review*, Vol. 19, No. 1 (2006), p. 90.

47 Sifu document no. 51 (2005); Sifu document no. 12 (2007).

48 "Sihui shidai guangchang shangmaocheng kaiye" ("Sihui Times Square commercial and trade centre opens for business"), *Xijiang ribao* (*Xijiang News*), 11 November 2006.

49 Xie Hui, "Sihui yidi 1860 wanyuan paichu chuang dankuai dipi chao dijia zuigao jilu" ("Land auctioned for 18.6 million yuan, setting a record for highest price above minimum for a single tract of land"), *Nanfang ribao* (*Southern News*), 6 January 2006.

50 "Dongcheng jiedao Taotang cunweihui 'Tangkeng' diduan" ("Land parcel at 'Tangkeng,' Taotang VC, Dongcheng street office"), 11 July 2007; "Sihuishi Dongcheng jiedao Xinchengqu fanghongdi xiaohai-kou zhi shiyou canku diduan" ("Land parcel from the flood control *xiaohai-kou* to the old petroleum warehouse, Xincheng district, Dongcheng street office, Sihui"), 11 July 2007; "Gonggao" ("Public notice"), 6 August 2007; "Gonggao" ("Public notice"), 8 August 2007. All available at Sihui Land Bureau website, <http://www.guotuju.gdsihui.gov.cn>, accessed 21 April 2008.

51 Intense competition for investment among localities in the region triggers "price wars," which prompt local governments to undercut each other to offer the lowest possible land prices and preferential administrative arrangements to attract capital and investors to set up businesses and industries on their territory. Some local governments even offer land at zero cost. For instance, Jiangmen, Zhongshan in Guangdong used a zero land price to attract Foshan enterprises to relocate. Neighbouring

Table 2: **Published Rates of Land Conveyance Fee in Sihui (yuan per square metre)**

Year	Usage	Land Grade					
		Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	
2005	Within city district	Commercial	240.2	158.2	121.2	83.2	53.2
		Housing	96.2	66.2	53.2	48.2	32.2
		Industrial	32.2	23.2	19.2	16.2	–
	Within towns/townships (vary by district)	Commercial	20.2–63.2	15.2–38.2	28.2	–	–
		Housing	18.2–48.2	13.2–32.2	21.2	–	–
		Industrial	14.2–26.2	11.2–19.2	13.2	–	–
	Change of land use	Industrial to housing	63.2	43.2	33.2	30.2	28.2
		Housing to commercial	145.2	93.2	68.2	41.2	26.2
		Industrial to commercial	208.2	134.2	103.2	71.2	53.2
2007	Within city district	Commercial	1780	1430	1050	700	390
		Housing	840	660	470	370	280
		Industrial	420	330	260	190	–

Sources:

Sifu document no. 51 (2005), “Sihui shi tudi churangjin zanxing biao zhun” (“Tentative standard rates of land conveyance fee in Sihui”); Sifu document no. 12 (2007), “Guanyu gongbu shishi xin jizhun diji de tongzhi” (“Notice to announce the implementation of new basic land prices”).

common strategy is to offer cheap agricultural land in the form of a development zone with services and infrastructure for industry.⁵²

Back in 2004, Sihui had already implemented temporary preferential measures to attract investors to the city's then 11 development zones. Fifty-year land use rights were conveyed at no more than 60,000 yuan per *mu* or 90 yuan per square metre of land, inclusive of initial development costs incurred for connecting electricity and water, the construction of roads, and the administrative charges for the land use certificate. Land was also offered for rent at the lowest stipulated price in each industrial zone. There was even a further "discount" for investments exceeding 50 million yuan or projects with a short construction period. Various administrative charges, such as licence fees, the construction enterprise management fee, urban basic infrastructure fee, construction safety supervision fee and quality control fee were also waived.⁵³

In 2007 new measures were drawn up by Sihui's government. Industries and enterprises labelled as "high technology" might pay 50 per cent of the land conveyance fee as an initial sum and the balance by instalments over the next three years.⁵⁴ On top of the waiver of various administrative fees, enterprises that contributed tax amounting to five million yuan or above in a year were entitled to a cash reward of 50,000 yuan. In addition, there was a "progressive award" of 10,000 to 20,000 yuan for every million yuan of tax increment using the sum of tax paid in 2006 as the base amount.⁵⁵

The drive to lure investors through low-priced land was galvanized through enticing cadres with cash rewards, which were incidentally funded by the county's takings from land sales. As from 2007, the Sihui government had allocated 10 per cent of the net income from the conveyance of land in the county and all towns and townships every year as monetary incentives for drawing businesses and investments of above 10 million yuan to the county. The money was paid to a

footnote continued

Guangning county also adopted price cutting measures for investors. Ningfu document no. 98 (2007), "Guanyu yinfa Guangningxian gongye xiangmu touzi youhui banfa de tongzhi" ("A notice on the promulgation of preferential measures for the investment of industrial items in Guangning county"). See also Bu gengdi baohu yu jingji fazhan guanxi diaoyan zu, "Dangqian jingji jianshe zhong de ruogan xinqingkuang yu tudi liyong guanli ji gengdi baohu zhengce diaoyan baogao" ("New circumstances in today's economic construction, land use planning and management, and cultivated land protection policy: a research report"), *Guotu ziyuan tongxun (Land and Resources News)*, No. 12 (2002), pp. 37–43.

- 52 Agricultural land is one of the most valuable resources at the disposition of local officials. Ambiguous land ownership rights, low compensation for dispossessed farmers and the institutionalized political weakness of peasants facilitate the state's taking over of collectively owned agricultural land with relative ease. Cai Yongshun, "Collective ownership cadres' ownership? The non-agricultural use of farmland in China," *The China Quarterly*, No. 175 (2003), pp. 662–80.
- 53 "Sihuishi guli yuanqu gongye fazhan zanzheng banfa" ("Tentative measures to promote industrial zone development in Sihui city").
- 54 "Sihuishi gongye xiangmu touzi youhui banfa" ("Preferential measures for the investment of industrial items in Sihui city").
- 55 Sifu document no.4 (2007), "Yinfa '2007 nian Sihuishi nashui dahu jiangli banfa'" ("Promulgation of 'Measures to reward major tax payers in Sihui city in 2007'").

specialized account managed and dispensed by the county's finance bureau. Individuals were entitled to a lump sum of up to 15,000 yuan while a *danwei* was rewarded with 5,000 yuan for every one million US dollars of foreign capital it secured. An additional 20 per cent monetary reward was given to those who managed to fulfil 60 per cent of the year's investment quota by June, and a further 30 per cent was awarded for the full attainment of the quota by September.⁵⁶ These bonuses varied by sector and the amount of tax or investment contributed by the particular business (see Table 3). Towns and street offices that brought in new enterprises were further rewarded when the tax revenues collected from enterprises exceeded the requirement set by the county government.

The incentive structure had also been replicated at the township level. In 2005 Xiamao town, for instance, meted out additional rewards for the offices and villagers' committees under its supervision: 2 per cent of land proceeds were allotted to each individual who successfully brought in an investor to set up a factory in the town's industrial zone; for attracting an investor to set up a factory in other areas within Xiamao town, individuals would receive a one-off payment amounting to 10 per cent of the town's economic gains (excluding taxes) arising from the investment in that year; individuals who secured investments ranging from below 500,000 yuan to above one million yuan would be awarded a percentage of the government's economic gains, ranging from 4 to 10 per cent. To entice local cadres and officials further, cash rewards were meted out promptly within three days of the receipt of payment for land and other expenses.⁵⁷

The conversion of agricultural land into development zones in Sihui gained pace from the early 2000s, coinciding with the countrywide zone fever.⁵⁸ After the Fuxi 富溪 Industrial Zone was set up in 2001, other towns in Sihui quickly followed suit, setting up Xinjiang, Dongcheng, Chengzhong, Zhenshan, Longfu and Fulong 福龙 industrial zones. Smaller zones also sprung up in other towns and villages.⁵⁹ As of 2002, Sihui city reportedly had 16 development zones with a total area exceeding 20 square kilometres.⁶⁰ This land area had

56 Sifu document no. 5 (2007), "Sihuishi zhaoshang yinzi jiangli zanxing banfa" ("Sihui city's tentative measures for rewarding the attraction of business and investment"); Siban document no. 14 (2007), "Guanyu xiafa 2007 nian xishou waizi gongzuo jiangli banfa de tongzhi" ("Regarding the notice on the measures for rewarding the bringing in of foreign capital in 2007").

57 Xiafu document no. 8 (2005), "Guanyu yinfa Xiamaozhen zhaoshang yinzi jiangli banfa de tongzhi" ("Regarding the notice to promulgate Xiamao town's measures for rewarding the attraction of business and investment").

58 By 2003, there were 6,866 zones in China, with a total planned area of 38,600 sq km, more than double that of the preceding zone fevers in 1992 and 1997. See Zhang Pu and Li Xiaowen, "Fangzhi kaifaqu weifa quandi xinsikao" ("New thoughts on preventing illegal land enclosures by development zones"), *Zhongguo tudi (China Land)*, No. 2 (2007), p. 15; "Guojia fazhan gaigewei quanwei jiedu kaifaqu qingli zhengdun gongzuo" ("The State Development and Reform Committee's authoritative interpretation of the reduction and restructuring of development zones"), *Zhongguo touzi (China Investment)*, No. 5 (2007), p. 20.

59 *Sihui Yearbook 2002*, pp. 117, 198, 203–04, 208, 213, 215–16, 218, 220.

60 Gao Jiao, "Sihui shi gongye yuanqu jianshe de diaocha fenxi" ("A research and analysis on the construction of industrial zones in Sihui city"), *Tongji yu yuce (Statistics and Projection)*, No. 4 (2002), pp. 53–55.

Table 3: **Monetary Rewards for Attracting Businesses and Investment to Sihui**

Category A. Industry

Cash reward based on the amount of value-added tax (VAT) and enterprise income tax contributed by the enterprise to local revenue in the first year:

- 1) A cash reward of 50,000 yuan for a tax contribution of one million yuan and above
- 2) A cash reward of 80,000 yuan for a tax contribution of three million yuan and above
- 3) A cash reward of 150,000 yuan for a tax contribution of five million yuan and above

Category B. Agriculture

Cash reward based on the amount of initial investment by the enterprise:

- 1) A cash reward of 30,000 yuan for an investment of 30 million yuan and above
- 2) A cash reward of 50,000 yuan for an investment of 50 million yuan and above
- 3) A cash reward of 80,000 yuan for an investment of 100 million yuan and above

Category C. Trade and commerce, tourism

Cash reward based on the amount of VAT and enterprise income tax contributed by the enterprise to local revenue in the first year:

- 1) A cash reward of 50,000 yuan for a tax contribution of one million yuan and above
- 2) A cash reward of 80,000 yuan for a tax contribution of three million yuan and above
- 3) A cash reward of 150,000 yuan for a tax contribution of five million yuan and above

Sources:

Sifu document no. 5 (2007), “Sihuishi zhaoshang yinzi jiangli zanxing banfa” (“Sihui city’s tentative measures for rewarding the attraction of business and investment”)

already surpassed the 15.58 square kilometres allocated to industrial and mining sites in 2000 based on Sihui’s land use plan.⁶¹

During the 2003 moratorium on the approval for development zones, Sihui was ordered by the State Council’s office to scrap seven industrial zones in Ximao, Longfu, Longwan, Jianggu, Didou 地豆, Jingkou 迳口 and Dongcheng.⁶² Despite the central government’s measures and regulations to cut down the number of development zones, political leaders in Sihui continued to push openly for the construction of zones and claimed that the city’s progress in this aspect was still “far from meeting the upper level’s standards.”⁶³ As a result, new development zones have continued to spring up in Sihui in the past few years.

Table 4 lists the numerous zones undertaken by different levels of government in Sihui over the years till 2007.⁶⁴ Of those in 2007, the planned area of five of Sihui’s most prominent industrial zones – Fuxi Industrial Zone, Nanjiang Industrial Zone, Longwan Ceramic Industrial Zone, Xinjiang Hi-Tech Scientific Development Zone and Zhaoqing Municipal Asia Metal Recycling and Processing Zone – was 44,950 *mu* or 2,997 hectares, 932 hectares more

61 Sihuishi guotu ziyuanju (Sihui city Land Resources Bureau), “Sihuishi tudi liyong zongti guihua, 1996–2010” (“Sihui city’s land use master plan, 1996–2010”).

62 Guoban faming dian document no. 30 (2003); *Guangdong Land Resources Yearbook* 2004, p. 468.

63 “Shiweishi zhengfu yaoqiu jiakuai yuanqu jianshe” (“Shiwei city government urges the speeding up of development zone construction”), *Zhaoqing nongye xinxi wang* (*Zhaoqing Agricultural News Web*), <http://www.gdzzqagri.gov.cn>, accessed 28 January 2005.

64 Some zones may be defunct.

Table 4: **Development Zones in Sihui till 2007**

Zone	Industry Type	Location	Planned area (mu)
Xinjiang Hi-Tech Scientific Development Zone	Metal processing, electronics, new energy	Dongcheng	12,000
Jingdaxing Paper Products Processing Base	Paper processing	Dongcheng	3,000
Chengzhong Industrial Zone	Leather products	Chengzhong	1,000+
Zhaoqing Municipal Asia Metal Recycling and Processing Zone	Metal recycling and processing	Longfu	5,000
Huijun Ecological Hi-Tech Metal Processing Base	Metal processing	Longfu	1,150+
Fuxi Industrial Zone	Hi-technology, garment, electronics, food processing	Dasha	10,000
France Industries Auxiliary Zone	Garment, household appliances, furniture and stationery	Dasha	3,000
Korea Locomotive Industrial Zone	Locomotive, automobile parts	Dasha	2,000
Mafang Industrial Zone	Chemical industry, metal processing	Dasha	3,000
Gangmei Industrial Zone	Metal products, art and craft	Dasha	600
Renma Industrial Zone	–	Dasha	–
Dabu Industrial Zone	–	Dasha	–
Nanjiang Industrial Zone	Metal manufacturing, electronics, bioengineering, garment production and processing	Dasha	7,950
Longwan Ceramic Industrial Zone	Copper, ceramic construction materials	Xiamao	10,000
Fulong Industrial Zone	Metal electroplating	Xiamao	1,010
Xiamao Industrial Zone	Recycling, aluminium, chemical	Xiamao	500
Loujiao Industrial Zone	Processing	Xiamao	–
Mapo Industrial Zone	Food processing	Xiamao	–
Gaoxin Zone	Electronics, machinery	Xiamao	–
Sihui Household Appliances Zone	Household appliances	Jingkou	10,000
Jingkou Industrial Zone	Medical equipment, electronics	Jingkou	10,000
Guanshan Industrial Zone	Metal processing	Jingkou	3,000
Nanxiang Industrial Zone	–	Jingkou	–
Shiling Industrial Zone	Metal processing, garment	Didou	–
Dongping Industrial Base	–	Didou	–

Sources:

Fieldwork in Sihui, 2007; Sihui government website, <http://www.gdsihui.gov.cn>, accessed on various dates.

than the 2,065 hectares of land designated as stand-alone mining and industrial sites by the year 2010 as indicated in the county's land use plan.⁶⁵ By 2009, the total planned area of Sihui's eight major industrial zones, mostly located in the central region down to the south-eastern tip, has ballooned to 269.62 square

65 Sihuishhi guotu ziyuanju, "Sihuishhi tudi liyong zongti guihua tiaozheng shuoming."

kilometres or 26,962 hectares, exceeding the land area allocated to stand-alone mining and industrial sites by a staggering ten times and more than double the quota of construction land for the entire county.⁶⁶

The existence of vast expanses of idle land, however, contravenes the claim that the development zones were created as a response to industrialization needs. Since development zones are usually financed through land-secured bank loans,⁶⁷ the enormous price difference between set-up costs and generated revenues is such a potent motivation for land requisition that it has become commonplace for local governments to expropriate farmland in anticipation of future demand.⁶⁸ This, coupled with an attractive cash stimulus for cadres, contributed to the proliferation of over-ambitious, ill-planned or ill-executed development zones, which in turn led to large areas of idle land, including land that is levelled but yet to be developed and land that is developed but underutilized.⁶⁹ Large areas lie idle often because the size of the developed area exceeds demand and there is inadequate investment. Some fail to draw investors because of their poor location. In other cases, investors who obtain land at low cost do not have sufficient financial power to develop the industrial zone. Lapses in the supervision and management of development zones after land is conveyed are also contributing factors as some governments are more interested in selling than developing land.⁷⁰

66 See Sihui government website, “Gongye yuanqu” (“Industrial zones”), <http://www.gdsihui.gov.cn/ zsy/z/gyyq/>, accessed 20 April 2010.

67 In the initial stage, government organizations, usually termed development zone management committee (*kaifaqu guanweihui*) will use bank loans to expropriate land at low cost, or obtain land free of charge through state allocation. These management committees were authorized by local governments and were responsible for the requisition, conveyance, planning and approval of land use. The selected piece of land is then contracted to developers, usually companies funded and set up by local governments. These companies are mainly responsible for the initial development and infrastructure construction on the land. After building the basic infrastructure, the land will then be conveyed to investors. See Lu Xinhai, “Kaifaqu tudi ziyuan de liyong yu guanli” (“Land management and land use in development zones”), *Zhongguo tudi kexue (China Land Science)*, Vol. 18 No. 2 (2004), p. 42; Han Runxian, “Kaifaqu yongdi tezheng ji zhengce jianyi yanjiu” (“A study of the characteristics of development zone land usage and policy suggestions”), *Huabei guotu ziyuan (Huabei Land Resources)*, No.4 (2007), pp. 15–17.

68 Yu Jianxing and Yang Shengyi, “Chenghishua jincheng jiasu beijing xia de zhengfu yuzheng tudi xingwei” (“Governments’ land requisition behaviour against the backdrop of accelerating urbanization”), *Shehui kexue (Social Science)*, No. 11 (2003), pp. 63–69; Du Wei and Huang Shanming, “Nongdi chanquan zhuanhuan guocheng zhong de jiacha xianxiang: chengyin, xingzhi yu duice tanxi” (“Price difference in the transfer of agricultural land ownership: an examination of the causes, nature and countermeasures”), *Xihua shifan daxue xuebao (Journal of Xihua Normal University)*, No. 4 (2005), pp. 23–26.

69 More specifically, according to the “Measures to manage idle land,” land for construction qualifies as idle if the land user fails to start construction work on the lawfully obtained land within a stipulated time frame, or when the actual area under construction is less than one-third of the entire area to be constructed, or when the sum of investment is less than 25% of the total sum and has halted construction continuously for one year without approval. See Guotu ziyuanbu ling document no. 5 (1999), “Xianzhi tudi chuzhi banfa” (“Measures to manage idle land”), art. 2.

70 He Shujin and Su Guangquan, “Kaifaqu xianzhi tudi chengyin jizhi jileixing huafen” (“The casual mechanism and types of idle land in development zones”), *Ziyuan kexue (Resources Science)*, Vol. 23, No. 5 (2001), pp. 17–19; Zhu Linxing, “Tudi xianzhi wenti de yanzhongxing, chengyin ji qi chuzhi” (“The severity and causes of the idle land problem and countermeasures”), *Tansuo yu zhengming (Exploration and Argument)*, No. 11 (2006), pp. 9–10.

In Sihui, the total area of idle land was 163.6 hectares or 2,454.4 *mu* in 1997.⁷¹ In 2000, under the regulations and guidelines in newly promulgated government documents such as the “Temporary Regulations on the Handling of Sihui City’s Idle Land,” Sihui Land Bureau dealt with 108 cases of idle land. Construction on 242 *mu* of land was expedited and put into use; the land use rights of 1,045 *mu* of land were retracted; 2,216 *mu* of idle land were assigned to other usage and the deadline for construction on 34 *mu* of land was extended.⁷² Yet in 2007, Sihui still had 22 cases or 1,120.67 *mu* of idle land. The culprits who left large areas of undeveloped land for the longest period were mainly manufacturing and metal processing plants located in development zones.⁷³ In addition, 3,000 *mu* of land in the Longwan Ceramic Industrial Zone located in Xiamao, which was found to be acquired illegally – the town authorities had “rented” land from villagers instead of going through proper requisition (*yizu daizheng* 以租代征) – was in limbo. According to a town official, part of this tract of land was converted back into cultivated land for the cultivation of corn but most was still lying idle as the construction of factories had halted and investments were rescinded.⁷⁴

Conclusion

In explaining what drives land use conversion in China, part of the story is that urbanization in the sense of a shift from agricultural to industrial activity is accountable for the expansion of Chinese cities at the expense of rural land. This article tells the other part of the story. It argues that China’s urbanization is also a spatial expansion that may proceed independent of the demands of urban population growth or a sectoral shift. The engineers of this land-centred urban sprawl are the local states.

In Sihui, government officials had supplied agricultural land for two distinct purposes. In the prime city district which rests on flat terrain, local officials spurred an urban sprawl to capitalize on higher land and property prices; on the fringe of the city district and beyond, numerous development zones were conveyed or illegally leased to industries at competitive prices to promote industrialization. The scarcity of flat, developable land in Sihui and the high costs of developing land in the mountainous areas contributed to an oversupply of agricultural land for conversion in the south-eastern region, exceeding the quota set in the county’s land use plan.

71 Yuan Zheng *et al.* (eds.), *Guangdong dizheng dichan nianjian 1998 (Yearbook of Guangdong Land Governance and Land Resources 1998)* (Guangdong: Guangdongsheng ditu chubanshe, 1998), p. 286.

72 Jiang Donghai *et al.* (eds.), *Guangdong guotu ziyuan nianjian 2001 (Guangdong Land Resources Yearbook 2001)* (Guangdong: Guangdongsheng ditu chubanshe, 2002), p. 267.

73 Ou Xing, “Sihui panhua shangqian mu xianzhi tudi” (“Sihui revitalizes over one thousand *mu* of idle land”), *Xijiang ribao (Xinjiang Daily)*, 8 June 2007, <http://www.zq.net.cn>, accessed 11 June 2008; “Gonggao” (“Announcement”), *Sihuishhi guotu ziyuanju (Sihui Land Bureau)*, <http://www.guotuju.gdsihui.gov.cn>, 6 June 2007, accessed 11 June 2008.

74 Interview with town official in Xiamao, October 2007.

The hypothesis that land use conversion is driven by the demands of urbanization or industrialization, tested against the case of Sihui, is inadequate in two senses: first, growth in the county's urban population and industrial GDP had been outpaced by the expansion in urban space; and secondly, the supply of development zones had not been met by a corresponding demand, resulting in a considerable amount of idle land. Based on the findings of this study, therefore, a model to explain land use change has to take into consideration not just the demands of urbanization but also the government's motivations in supplying land, and how these interact with local conditions such as geography and the locality's fiscal capacity. The interplay of these variables gives rise to different land use patterns and trends.

One point to bear in mind when applying this explanatory model to other localities is that the relative impact of these variables on land use conversion differs from place to place. In the case of Sihui, the demands of urbanization appear to have played a less significant role in driving land use change than the government's motivations in supplying land. However, given Sihui's proximity to the more developed areas of the Pearl River Delta, the forces of urbanization would presumably have exerted a greater influence on the supply of agricultural land than for more rural areas in inland China. In contrast, it may be conjectured that the conversion of agricultural land in counties located within the prosperous eastern Pearl River Delta is driven by the demands of urbanization to a greater extent than in Sihui's case.

To further test the explanatory power of this proposed model, Sihui may be compared to other counties in Zhaoqing such as Guangning, Fengkai 封开 and Huaiji 怀集 that share similar characteristics in their development, level of urbanization, geography and fiscal situation.⁷⁵ If, for instance, the local government's supply of agricultural land for conversion differs substantially from one county to another, the study may then probe into the local incentive structures and motivations that drive officials to supply agricultural land to ascertain if these are the key determinants. Such a comparative study will contribute to a better understanding of the forces that drive the conversion of agricultural land in China.

75 As with Sihui, Guangning also offered land at low cost and tax returns to attract investments. Ningfu document no. 98 (2007), "Guanyu yinfa Guangningxian gongye xiangmu touzi youhui banfa de tongzhi" ("A notice on the promulgation of preferential measures for the investment of industrial items in Guangning county").

Appendix: **Sihui Land Use Distribution by Town and Region (hectares)**

		Agricultural land		Construction land			Unused land		Total
			Arable land		Residential, industrial, mining	Roads	Water conservancy		
Total	1996	107,988.13	23,637.77	9,419.69	6,647.08	1,292.81	1,479.80	3,891.29	12,1299.1
	2000	107,862.39	23,590.36	9,567.97	6,766.1	1,320.18	1,481.69	3,868.75	12,1299.1
	2010	107,896.11	23,467.01	10,120.67	7,158.35	1,492.46	1,469.86	3,282.33	12,1299.1
1996–2010		−92.02	−170.76	+700.98	+511.27	+199.650	−9.94	−608.96	0
South-eastern Sihui									
Dasha	1996	6,722.29 (6.23%)	2,217.01	1,564.65 (16.61%)	1,099.65	212.63	252.37	396.45 (10.19%)	8,683.39 (7.16%)
	2000	6,702.89 (6.21%)	2,235.03	1,585.12 (16.57%)	1,119.19	213.53	252.4	395.38 (10.22%)	8,683.39 (7.16%)
	2010	6,645.66 (6.16%)	2,210.74	1,700.24 (16.8%)	1,199.74	245.2	255.3	337.49 (10.28%)	8,683.39 (7.16%)
Xinjiang	1996	3,323.23 (3.08%)	904.01	440.80 (4.68%)	327.38	55.09	58.33	120.68 (3.1%)	3,884.71 (3.2%)
	2000	3,304.65 (3.06%)	896.00	458.05 (4.79%)	341.07	58.65	58.33	122.01 (3.15%)	3,884.71 (3.2%)
	2010	3,244.43 (3.01%)	886.80	495.13 (4.89%)	375.15	61.65	58.33	103.97 (3.17%)	3,884.71 (3.2%)
Zhenshan	1996	2,884.3 (2.67%)	918.94	430.96 (4.58%)	286.72	66.55	77.69	171.56 (4.41%)	3,486.82 (2.87%)
	2000	2,853.10 (2.65%)	889.23	463.08 (4.84%)	319.02	66.37	77.69	170.64 (4.41%)	3,486.82 (2.87%)
	2010	2,814.42 (2.61%)	892.00	536.13 (5.3%)	369.31	89.13	77.69	145.41 (4.43%)	3,486.82 (2.87%)
Chengzhong	1996	3,513.54 (3.25%)	829.99	760.51 (8.07%)	616.66	72.74	71.11	156.87 (4.03%)	4,430.92 (3.65%)

	2000	3,511.43 (3.26%)	817.59	696.77 (7.28%)	547.48	79.97	69.32	157.76 (4.08%)	4,365.96 (3.6%)
	2010	3,341.37 (3.1%)	798.00	890.15 (8.8%)	705.46	115.67	69.02	134.44 (4.1%)	4,365.96 (3.6%)
Dongcheng	1996	3,206.38 (2.97%)	990.01	937.68 (9.95%)	772.08	71.11	94.49	127.82 (3.28%)	4,271.88 (3.52%)
	2000	3,209.90 (2.98%)	964.58	999.37 (10.44%)	832.06	71.03	96.28	127.57 (3.3%)	4,336.84 (3.58%)
	2010	3,183.57 (2.95%)	950.00	1,048.54 (10.36%)	875.33	79.53	93.68	104.73 (3.19%)	4,336.84 (3.58%)
Total	1996	19,649.74 (18.2%)	5,859.96	4,134.60 (43.89%)	3,102.49	478.12	553.99	973.38 (25.01%)	24,757.72 (20.41%)
	2000	19,581.97 (18.15%)	5,802.43	4,202.39 (43.92%)	3,158.82	489.55	554.02	973.36 (25.16%)	24,757.72 (20.41%)
	2010	19,229.45 (17.82%)	5,737.54	4,670.19 (46.15%)	3,524.99	591.18	554.02	826.04 (25.17%)	24,757.72 (20.41%)
1996–2010		−420.29	−122.42	+535.59	+422.50	+113.06	+0.03	−147.34	0
Central and eastern Sihui*									
Total	1996	28,477.30 (26.37%)	6,290.08	1,839.22 (19.53%)	1,199.24	248.22	391.76	718.77 (18.47%)	31,035.29 (25.59%)
	2000	28,486.76 (26.41%)	6,321.09	1,856.71 (19.41%)	1,204.63	260.33	391.75	691.82 (17.88%)	31,035.29 (25.59%)
	2010	28,742.47 (26.64%)	6,298.05	1,702.70 (16.82%)	1,037.12	273.83	391.75	590.12 (17.98%)	31,035.29 (25.59%)
1996–2010		+265.17	+7.97	−136.52	−162.12	+25.61	−0.01	−128.65	0
Northern and western Sihui [#]									
Total	1996	55,893.20 (51.76%)	9,415.05	2,881.98 (30.6%)	2,042.66	339.68	499.64	1,940.25 (49.86%)	60,715.43 (50.05%)

Continued

Appendix: **Continued**

		Agricultural land	Arable land	Construction land	Residential, industrial, mining	Roads	Water conservancy	Unused land	Total
	2000	55,853.30 (51.78%)	9,406.48	2,902.23 (30.33%)	2,049.30	345.51	507.42	1,959.90 (50.66%)	60,715.43 (50.05%)
	2010	56,225.48 (52.11%)	9,419.50	2,881.11 (28.47%)	1,966.24	407.45	507.42	1,640.88 (49.99%)	60,715.43 (50.05%)
1996–2010		+332.28	+4.45	−0.87	−76.42	+67.77	+7.78	−299.37	0
Others									
Dawang	1996	3,967.89 (3.67%)	2,072.68	563.89 (5.99%)	302.69	226.79	34.41	258.89 (6.65%)	4,790.67 (3.95%)
Huaqiao	2000	3,940.36 (3.65%)	2,060.36	606.64 (6.34%)	353.35	224.79	28.50	243.67 (6.3%)	4,790.67 (3.95%)
Farm	2010	3,698.71 (3.43%)	2,011.92	866.67 (8.56%)	630.00	220.00	16.67	225.29 (6.86%)	4,790.67 (3.95%)
1996–2010		−269.18	−60.76	+302.78	+327.31	−6.79	−17.74	−33.60	0

Notes:

Figures in parentheses indicate the area of a land type in each town/region as a percentage of the same land type in the entire county.

* Includes Xiamao, Longfu, Jingkou, Jiguangtang Farm and Danan Forest.

Includes Dengcun, Didou, Huangtian, Jianggu, Jianglin, Luoyuan, Shigou and Weizheng.

Source:

Sihuishi guotu ziyuanju (Sihui City Land Resources Bureau), “Sihuishi tudi liyong zongti guihua tiaozheng shuoming” (“Explanation of adjustments in Sihui city’s land use master plan”), April 2005.