

24th IUSSP General Population Conference, 18-24 August, 2001 Salvador-Bahia, Brazil

S42 Urbanisation: The Challenge of New Forms of Urban Growth

**The transformation of townships into towns and their roles in China's
urbanization: evidence from Fujian Province**

(Draft copy)

Yu Zhu*

Demography Program, RSSH, The Australian National University

/Institute of Geography, Fujian Normal University

Current address (before March 2002):

Institute of Geography

Fujian Normal University

Fuzhou, Fujian Province

P. R. China

E-mail: zhu300@coombs.anu.edu.au

* The author is grateful to the Wellcome Trust for providing him with the fellowship to fund this research (Reference number 055950), to the IUSSP for financial support for him to attend the conference, and to the Provincial Census Office of Fujian Province in China for providing him with the preliminary results of the 2000 census. He would also like to acknowledge with gratitude the helpful comments of Prof. Gavin Jones.

1. Introduction

In many parts of the developing world, rural-urban migration and the growth of existing cities have dominated the urbanization process. On the one hand, rapid population growth causes serious population pressure on arable land and deteriorating employment prospect in the agricultural sector; rural development is constrained by the lack of investment and infrastructure and offers little opportunity for surplus rural labor. On the other hand, existing cities, especially one or a few large existing cities are dominant in economic activities (United Nations 1998b:22; Pernia 1998:107), pulling many rural residents to migrate to them. The predominance of existing cities in the urbanization process is further enhanced in many cases by the rapid natural population growth of existing cities themselves, and continuously sprawling expansion of their areas, leading to the emergence of an increasing number of mega-cities in developing countries (United Nations 1980:7; 1993:2-8; 1998a:20-28; Rondinelli 1983:28-32; Brockerhoff and Brennan 1998:77-82). Thus, the creation of new urban places in rural areas has become a negligible part of the urbanization process, and marginalized in urbanization studies.

China's experience before the reform era was not fundamentally different from what is described above. Although the government strictly controlled rural-urban migration through the stringent household registration system, it was the growth of existing large and medium-sized cities that shaped the urbanization pattern during that period (Ma and Lin 1993). Rural areas were virtually excluded from the industrialization and urbanization process at that time (Chen and Han 1993:1).

However, since the 1980s, significant changes have taken place in the role of rural areas in China's urbanization process. A new pattern of *in situ* urbanization has emerged in the Chinese countryside. This new urbanization pattern has been mainly achieved through the transformation of rural settlements into urban or quasi-urban ones through the growth of manufacturing and other non-agricultural activities in the form of township and village enterprises (TVEs). It has not only transformed many rural areas and created many new urban centers, but also prevented many potential migrants from entering existing cities,

especially large ones. Such experience is not only in sharp contrast with that of many developing countries, but also at odds with the relevant conventional theories, which assume a rigid rural-urban dichotomy in the urbanization process and a polarization process at the early stage of urbanization (Friedman 1996; McGee 1991).

The emergence and development of *in situ* urbanization in China brings about many new issues for urbanization studies. First, until very recently China's official urban statistical criteria, which were designed to reflect the urbanization process under the planned economic system, have been inadequate to reflect the above transformation of rural settlements. Therefore although *in situ* urbanization has contributed significantly to urban growth and urbanization in China, the real extent of the contribution has never been determined, and very often it is simply ignored. Secondly, as the conventional conceptualization of urbanization is often based on the simple rural-urban dichotomy and focused on rural-urban migration and the growth of existing cities, the large scale *in situ* transformation of rural settlements into urban ones in China is a relatively under-researched phenomenon and not well captured by conventional theories and statistics. Therefore, the process and mechanism of the *in situ* rural-urban transformation are still not well understood, and a new conceptual framework and corresponding statistical criteria, which can reflect new ways of rural settlement evolution and urban settlement formation, are needed so that the contribution of *in situ* urbanization can be measured and its mechanism can be better understood. This will contribute significantly to our understanding of the urbanization process not only in China, but also in many parts of the developing world.

This paper tries to address the above issues by examining the transformation of rural townships into towns, the most important form of *in situ* urbanization in China, in its Fujian Province. Located in southeast China and directly facing Taiwan, Fujian Province is one of the trial bases of China's reform and open-door policies and has been at the forefront of social and economic development in China. One of the major characteristics of its development in the last 20 years has been the spontaneous development of township and village enterprises in the rural areas, and the transformation of rural settlements into urban

or quasi-urban ones driven by the spontaneous rural development. The two major cities in the province have been relatively small compared to those in many other provinces in China and had weak economic bases when rural development in Fujian just started, therefore have not played important roles in the *in situ* rural-urban transformation. Thus Fujian Province provides a good case through which the roles and mechanism of the transformation from townships into towns in China's urbanization can be explored.

2. Some issues regarding China's urban definitions and statistics

Before starting the discussion on the above issues, China's complicated and confusing urban definitions and statistics need to be addressed.

2.1 The official definition of towns and its limitations

Towns and townships are both at the lowest level of China's administrative hierarchy. A township is composed of many villages. When it meets certain conditions, it can be reclassified as a town, the smallest independent urban unit in China, and enter the lowest echelon of China's urban system¹. Normally the reclassification will be accompanied by the establishment of resident's committees, most of which are located in the town center and composed of people with non-agricultural household registration status. At the same time the other parts of the territory (namely villages) and their populations of the township will also be placed under the jurisdiction of the town regardless of their residential and economic status. Thus a town is a transitional urban settlement form where both rural and urban settlements coexist in its administrative area. In fact, apart from some towns serving as county-government seats, most towns in China are still treated as rural areas under China's urban planning system, although a major change will soon be introduced in this regard.

According to the latest official town definition in China (China, State Council 1984a), the

¹ 'Town' and 'township' are actually not good translations for the corresponding Chinese terms for the relevant urban and rural administrative units, as 'town' and 'township' have very similar meanings in English. However since they have already been widely used, I will also use them in this article.

most important criterion for a township to be designated as a town is the size of the non-agricultural population in the township government seat, which is the town center in most cases. Townships with a total population of less than 20,000 can be designated as towns if the non-agricultural population in the township government seat is more than 2,000; townships with a total population of more than 20,000 can be designated as towns if the non-agricultural population in the township government seat is more than 10 percent of the total township population.

The above official town definition has become increasingly problematic in China since the 1980s. First, the classification of either the agricultural population or the non-agricultural population is based on China's household registration system, under which only a limited number of people, most of them living in urban areas, can have the non-agricultural household registration status and enjoy certain State benefits. The classification in such a sense has lost much of its meaning since the reform era because more and more people in the rural areas are non-agricultural by occupation but do not have non-agricultural household registration status. Besides, the government has also greatly reduced or even cancelled many benefits provided to those people with non-agricultural household registration status. Second, the definition implicitly treats the government seat of the town as the town proper. This not only raises the issue as to how the scope of the government seat itself should be defined, but often underestimates the town population, as many towns have been built-up well beyond the government seats in the recent years. Furthermore, the definition does not pay attention to the changes in the economic and employment structures and the increase in urban elements in the rural areas, which have been tremendous in China since the 1980s and thus need to be taken into consideration in urbanization studies. Obviously, to reflect the new situation in urban growth and urbanization in Fujian, the discussion in this paper has to go beyond the limitation of the official urban definition.

2.2 China's official urban statistics and their limitations

The problem in China's official town definition is further complicated by China's urban statistics. There are two commonly used urban population statistics in China, which cover

very different populations of towns in their administrative areas:

1. Total population of cities and towns (TPCT). This refers to the population in the whole administrative areas of designated cities and towns. In the case of town statistics it is the total population of towns (TPT). It includes not only the population in the town proper, but also the population of the surrounding villages, which are under the administration of the town government.

2. Non-agricultural population of cities and towns (NAPCT). This refers to the part of the total population of cities and towns that is non-agricultural by household registration. In the case of towns it is called non-agricultural population of towns (NAPT)².

Until the early 1980s when China adopted reform and open-door policies, TPT was generally regarded as a reasonable representation of the size of the town population in China and internationally comparable (Chan 1994:252; Zhu 1998: 269). Meanwhile, population figures used in China's town planning were mostly based on NAPT, because it was considered to represent fully urbanized people in TPT. However, since the early 1980s, especially 1984, TPT and NAPT have gradually lost their credibility in representing China's town population. The most important reason for this is that in 1984, China's State Council relaxed the criteria for the designation of town status, and adopted the policies of 'abolishing townships and establishing towns' (*chexiang jianzhen*) and 'town administering village' (*zhengguancun*) whereby townships were abolished and their territories and population were placed under the jurisdiction of towns (China, State Council 1984a; Ma and Cui 1987:384-385; Lee 1989). Since TPT includes all residents in the administrative areas of towns, it obviously overestimates the real size of truly urbanized people in the towns. By contrast, the NAPT underestimates the real size of urbanized people in the towns because it does not cover the *de facto* non-agricultural population in

² In the 1990 census and the 1995 one percent population sample survey two criteria on urban population, which are also referred to as "the first criterion" and "the second criterion", were used (Population Census Office of Fujian Province 1992:1506-1507). The town population based on the first criterion was the same as the total population of towns mentioned above; however the town population based on the second criterion included only the population of residents' committees of towns, which is very similar to the non-agricultural population of towns as mentioned above.

the towns, which has increased rapidly since the early 1980s. The dilemma of TPT and NAPT lies in the fact that both of them now fail to capture the socio-economic changes in the rural areas, which have proceeded with little need of the State authorization and financial support, but brought real urban elements to the rural areas, since the 1980s.

Because of increasing awareness of the above problems with China's urban definitions and statistics, new urban criteria were adopted in the 2000 census. In the following analysis urban statistics from the 2000 census will be referred to as *the population of cities and the population of towns* to distinguish them from TPC and TPT. According to the new criteria the population of towns refers only to the population of towns proper, which are defined as the seats of all town governments and the areas of residents' committees, and the areas of villages, the seats of whose villager's committees have been extended by the build-up areas of the town government seats. This definition delimits the scope of town proper, and the statistics based on it are much more reasonable than TPT and NAPT in representing the size of the urbanized population in the towns because they are based on the *de facto* population in the built-up areas of towns, which is a result of real urban development. The urban statistics based on the criteria of 2000 census, together with some other statistics reflecting structural and functional changes in the rural areas, will be used to reflect the substantive rural-urban transformation in Fujian in this article.

3. The transformation of rural townships into towns in Fujian Province: administrative fiat or real urban growth?

With the background knowledge about China's urban definitions and statistics, this section starts to assess the contribution of township-town transformation to China's urbanization process, taking Fujian as the case study. This is certainly not an easy task. On the one hand, China's urban definitions and statistics have been so confusing and volatile since the 1980s that the urbanization trend reflected in the conventional data (especially the total population of cities and towns) has once been depicted as 'statistical artifact' or 'administrative fiat' (Goldstein 1990), and the administrative reclassification of townships into towns has been much responsible for this situation, as will be shown later; on the other

hand, the substantive processes behind the data have been neglected and poorly understood. I will try to make the assessment from three different perspectives: the ‘artificial urban growth’ brought about by administrative and definitional changes reflected in the conventional urban statistics in China; the increase in urban elements in the rural areas; and the ‘real urban growth’ evidenced by the 2000 census data.

3.1 The ‘artificial urban growth’ in the township-town transformation in Fujian measured by TPT

As I examined elsewhere, due to its dependency on State sponsorship, town development in Fujian Province as well in China as a whole had been suppressed and migration to the towns had been strictly restricted for a long time before the reform era. In 1956 there were 225 towns in Fujian Province, but this number was cut to only 98 in 1966 (Zhu 1998:274). In 1980 when China just adopted reform and open-door policies, the number of towns in Fujian was only 68 (Li et al. 1988:746).

However since the late 1970s, towns have acquired new important roles in China’s development. As various reform and open-door policies have been implemented, an increasing number of farmers have been released from the agricultural sector and gained more and more freedom to migrate to and work in urban areas. Fearing large-scale rural-urban migration and its potential pressure on large cities, the Chinese government needed to find outlets for these surplus laborers, and promoting small town development and rural industrialization has been the major response of the Chinese government to this challenge. Small towns were regarded as reservoirs of rural surplus labor and focal points of rural industrialization, and the Chinese government took two measures to facilitate their development: one was the State Council decision in 1984 to lower the criteria for the designation of town status, and adopt the policies of ‘abolishing townships and establishing towns’ and ‘town administering village’ mentioned earlier; the other was that the State Council decided to allow farmers and their dependents to move to designated towns (excluding county-level government seats) for permanent settlement, provided they met certain conditions so that they didn’t add financial burden to the State (China, State Council

1984b).

These measures greatly promoted the development of towns in Fujian Province. In 1985 the number of towns reached 209 in Fujian Province, and then further increased to 258 in 1990. In the early 1990s, especially in 1992 and 1993, town development in Fujian was further promoted by the provincial and local governments, whose officials thought that urban status was important to local economic development. They made more efforts to convert townships into towns, even though some of them were not up to the new criteria for the designation of official town status³ This caused another major increase of towns in Fujian Province, bringing the number of towns to 581 in 1995 (Zhu 1998:271-275). Only since 1995 has the increase in the number of towns leveled off. The above increase in the number of towns brought about a great transition in the rural-urban composition of administrative units in Fujian Province: In 1982 census there were 870 townships (at that time there were still called communes) and only 125 towns; but in 2000 census there were only 409 townships, which were greatly outnumbered by towns, whose number reached 605 (Population Census Office of Fujian Province 1984:1; data provided by Population Census Office of Fujian Province, May 2001).

Not surprisingly, the rapid increase in the number of towns, and the complete conversion of the administrative areas of the townships into towns, have lead to a tremendous increase in the size of the total population of towns (TPT). In the 1982 census, the total population of towns (TPT) was only 2,221,178, accounting for 8.6 per cent of the total population (calculated according to Population Census Office of Fujian Province 1984:15); but in 2000 census the total population of towns (TPT) amounted to 21,491,107, nearly ten times that of the original figure, accounting for 63 per cent of the total population of Fujian Province (calculated according to data provided by Population Census Office of Fujian

³ The provincial and local governments have been eager to designate cities and towns mainly because of the following considerations: (a) An official urban place is better-known. This will help attract investment and get more attention from the superior government; (b) More autonomy will be given to urban places in decision making, such as approving foreign investment projects; (c) It will be more legitimate for the governments of urban places to promote non-agricultural sectors in the local economy and pay less attention to the agricultural development; (d) There are some financial benefits such as being entitled to collect more 'urban maintenance and construction tax' and getting more funding for urban infrastructure construction (Zhu 1998:272).

Province, May 2001)⁴. In other words, more than 60 per cent of the total population of Fujian Province is under town administration. These figures reflect the important position of towns in Fujian's administrative hierarchy and the importance the Chinese government attaches to their development; however, as urban statistics they grossly exaggerate the real town population and their proportion of the total population in Fujian.

3.2 The latent processes behind the official urban statistics: the increase in urban elements in the countryside

The preceding section shows the great magnitude of the transformation of townships into towns initiated and facilitated by the government through administrative measures, which is visible in the official urban statistics. However, there have been some more important, albeit latent processes behind the administrative changes, which have accompanied the above administrative changes and made a great contribution to the increase in urban characteristics in Fujian's rural areas. These processes are also important in assessing the role of township-town transformation in Fujian's urbanization.

3.2.1 The development of TVEs and functional changes in the countryside

The most important latent process has been the fast development of township and village enterprises. As mentioned earlier, promoting the development of small towns and rural industrialization has been a major government strategy to deal with the problem of rural surplus labor. While the development of small towns has been facilitated by the changes in urban definition and migration policies, as mentioned earlier, rural industrialization has been largely achieved by the development of township and village enterprises in China⁵. In China as a whole, the total number of TVE employees was 28.3million in 1978, but this figure increased to 130.5 million in 1997. In Fujian, TVE development has been even faster.

⁴ The total population of towns under the administration of cities is included in the TPT for both the 1982 and 2000 censuses.

⁵ Foreign funded enterprises are another force promoting rural industrialization in China. However if they are located in the rural areas, they are often TVEs as well. Foreign funded enterprises without TVE connections play smaller roles than TVEs in China's rural industrialization.

In 1978 there were only 870,824 TVE employees, but in 1999 this figure increased by 5 times, amounting to 5,296,867.

It's not hard to imagine that such a large-scale TVE development has had great impact on the transformation of rural settlements in Fujian Province. However a more complete and deeper understanding of such impact can be obtained by examining two important characteristics of TVEs.

The first important characteristic of TVEs is that they are predominantly non-agricultural, especially manufacturing enterprises. As can be seen from Table 1, only a small fraction of TVEs and their employees are engaged in agricultural activities. The largest industry for TVEs is manufacturing, followed by the industry of wholesale, retail sales and trade. This is completely different from the traditional image of rural areas, which are identified with agricultural activities.

	TVEs		TVE employees	
	Number	% of total	Number	% of total
Agriculture	11,874	1.50	188,700	3.56
Manufacturing	243,878	30.85	3,111,347	58.74
Construction	37,496	4.74	529,031	9.99
Tansport	141,149	17.86	336,708	6.36
wholesale, retail sales and trade	237,673	30.07	689,994	13.03
Tourism and catering trades	92,710	11.73	326,815	6.17
Other	25,736	3.26	114,272	2.16
Total	790,516	100.00	5,296,867	100.00

Source: calculated according to 1999 statistics of TVE management bureau of Fujian Province.

The second important characteristic of TVEs is that they are small, and mostly township- or village-based, as the term literally means. As can be calculated from Table 1, the average number of employees for each TVE in Fujian in 1999 was only 6.7. In fact, many TVEs in Fujian are households or joint-household enterprises, as I have examined elsewhere⁶. Table

⁶ For more detailed discussion on the characteristics and development of TVEs see Zhu 2000: 414-422.

2 shows the distribution of 50,178 TVEs covered in the 1996 agricultural survey. These TVEs should meet the conditions of having at least 8 employees or other criteria to be covered in the survey, and therefore have bigger size than the TVEs not covered in the survey. However even among these enterprises, nearly 80 per cent of them and 70 per cent of their employees were found to be located in the villages. It can be inferred from Table 2 that those TVEs not covered by the survey are mostly located in the villages, as the table shows the trend that the smaller the enterprises, the more likely they are located in the villages.

Location	Enterprises		Employees		Average number of employees
	Number	% of total	Number	% of total	
Large and medium-sized cities	615	1.23	32,156	2.17	52
Seats of county governments	2,035	4.06	64,987	4.38	32
Industrial and mining areas	168	0.33	5,710	0.38	34
Seats of township or town governments	8,176	16.29	365,198	24.62	45
Villages	39,184	78.09	1,015,172	68.44	26
Total	50,178	100	1,483,223	100	30

a: only include those having at least 8 employees or meeting certain other conditions.

Source: 1996 Agricultural Survey of Fujian Province.

One obvious effect of the fast development of TVEs with the above characteristics on the transformation of rural settlements in Fujian Province is the great changes in the employment structure of rural areas. As can be seen from Table 3, in 1984 agricultural employment still accounted for 83 per cent of the total employment in Fujian's rural areas; but in the 1996 agricultural survey, this proportion has dropped to 61.8 per cent of the employment; in plain rural areas, non-agricultural activities were very close to overtake agricultural activities in the employment structure. In fact, in many coastal areas, non-agricultural activities have already been dominant in the areas officially defined as rural, as I noted elsewhere (Zhu 2000). Since 'an increase in the number of people engaged

in non-agricultural activities' is considered to be an important component of urbanization (United Nations 1993:2-1), the above-mentioned changes in the employment structure of Fujian's rural areas certainly increased their urban characteristics.

	Primary sector	Secondary sector	Tertiary sector
1984 ^a	82.83	9.27	7.90
1996, all rural areas ^b	61.78	20.26	17.96
1996, plain rural areas ^b	52.94	24.57	22.49

Sources: a: Statistical Bureau of Fujian Province 1985:74-75;
b: 1996 Agricultural Survey of Fujian Province.

However, it is also important to note that since most TVEs are township- or village-based, the above structural changes have not been accompanied by spatial concentration of people and enterprises. Rather, the fast development of TVEs has brought the industrial and other non-agricultural activities, which are considered to be the most important urban functions, down to the bottom hierarchy of the rural settlements. Thus urban elements have been increasing in many settlements in Fujian; however they are not increasing in a concentrated way, and therefore are not easily recognizable and often ignored.

3.2.2 The increasing universality of urban facilities in rural areas

The second latent process is that while TVE development has brought urban economic functions to the rural areas, many urban or urban-like facilities have also permeated rural areas in Fujian Province. As can be seen from Table 4, most villages in Fujian Province have access to public electricity, postal services, public roads suitable for motor vehicles, TV communications, primary school, primary health care clinics, and telephones, although the coverage of telephones in the villages is still relatively low. At the township-level, more urban facilities can be found. In Fujian Province, 93 per cent of towns and townships have cultural centers, 97 per cent have secondary schools, and 98 per cent have hospitals, according to the 1996 Agricultural Survey. The universality of the above facilities at the

bottom hierarchy of the rural settlement system is further enhanced by modern transport and communication facilities, such as highways, IDD telephone and fax services, and even the Internet, which connect many rural settlements closely with major urban centers not only in the province, but in other part of China, as I have demonstrated elsewhere (Zhu 1999:162-165). This aspect of rural transformation has also been identified by Jones (1997) in other part of East and Southeast Asia, and he regards them as one respect in which conventional data understate levels of urbanization already achieved in those regions. If these urban elements are also taken into account in Fujian Province, then the rural-urban transformation in the officially defined rural areas of Fujian Province is even more profound than already realized.

**Table 4 Urban facilities in Fujian's villages, 1996
agricultural survey**

	Total number of villages	Number of villages with the facilities	
		Number	% of total
Access to public electricity	15,087	15,066	99.86
Access to postal services	15,087	14,572	96.59
Access to public roads suitable for motor vehicles	15,087	14,424	95.61
Access to telephone	15,087	10,845	71.88
Access to TV communications	15,087	14,417	95.56
Primary school	15,087	13,895 ^a	92.10
Primary health care clinic	15,087	16,897 ^b	112.00

a: number of primary schools in the rural areas.

b: number of clinics in the rural areas.

Source: 1996 Agricultural Survey of Fujian Province.

3.2.3 High population densities and improved transport and communication conditions: two enabling factors for the latent processes

The above analysis should not lead to the conclusion that the township-town transformation in Fujian does not require any spatial concentration. As will be seen later, there has been a process of spatial concentration in the towns at a certain stage of the transformation, although in an unconventional manner. At the same time, it should be noted that the above latent processes have been occurring under the conditions of high population densities and convenient transport and communication facilities. It is these conditions that enable the above unconventional, dispersed development patterns.

The comparison between Fujian Province and some developed countries in the past can illustrate this point. Let us look at the role of high population density first. Fujian Province has a total area of 121,400 km², and its population density was 286 persons per km² in the 2000 census. The 27 coastal counties and municipalities, which constitute the area with most developed TVEs in the province and whose number of TVE employees accounting for 66 per cent of the provincial total, have a total area of 29,266 km² and an average population density of as high as 663 persons per km². This area size is similar to that of Belgium (29,456 km²) or Holland (32,538 km²) at the end of the 19th century (Weber 1968: 182), but as Table 5 shows, the population density of Fujian's coastal area is several times higher than those of Belgium and Holland at that time⁷.

⁷ Even today the population densities in many developed countries are still lower than that of Fujian. For example, the population densities of Germany, Italy and France were 222, 189, and 103 in 1990 respectively (Heilig 1997: 151), compared to 248 of Fujian Province.

Table 5 Population density of Fujian Province in the 2000 census and some developed countries at the end of the 19th century (persons per km²)

Saxony	234
Belgium	206
England and Wales	192
Netherlands	139
Italy	107
Japan	107
Germany	92
France	73
United States	8
Fujian Province	286
Coastal area of Fujian Province	663

Source: Weber 1968:147; population densities in Fujian are calculated according to data provided by Population Census Office of Fujian Province, May 2000.

As a consequence of high population density in the rural areas, rural settlements with the population size and density of an urban or semi-urban place are not unusual in Fujian's coastal area. In the above 27 coastal counties and municipalities, nearly 50 per cent of their towns and townships have population densities higher than 800 persons per km² (calculated according to data provided by Civil Affairs Department of Fujian Province; April 2000). This compares to the average population density of 1000 people per km² of the urbanized areas in USA in 1990 (U. S. Bureau of the Census 1990, cited in Zhou and Shi 1995:295). In fact, rural population agglomeration in the coastal area of Fujian Province is so evident that many villages have connected to each other and become joined, forming bigger incorporated villages (Chen and Huang 1991:43). Thus, although many settlements in these areas are still regarded as rural, in a way they have already achieved urbanization in terms of population concentration, and what they need to complete the urbanization process is to transform their functions from rural to urban. As mentioned earlier, the fast development of TVEs served just this purpose.

Improved transport and communication facilities are further factors enabling the latent processes of rural-urban transformation in Fujian. In the period when developed countries were urbanized, and even in the middle of the twentieth century when many cities developed in developing countries, widespread motor transport was still not available, and dense settlement near the center was required so that people could walk to work and goods could flow easily between manufacturers, wholesalers and retailers, causing huge concentrations of persons in small areas (Hackenberg 1980:404; Speare et al. 1988:193). However, the township-town transformation in Fujian has been occurring under very different transport and communication conditions. Here relatively cheap transport such as motorcycles, buses and trucks has increased rapidly and become commonplace since the late 1978. In Jinjiang, the most famous municipality in Fujian for TVE development, the number of motor vehicles increased from less than 700 in 1978 to 93,707 in 1999, including 4,990 buses, 9,803 trucks, and 75,572 motorcycles (Statistical Bureau of Jinjiang Municipality 2000:181). The increasing availability and affordability of motor vehicles, together with the increasing accessibility of rural settlements to these transport means and internal and external road networks mentioned earlier, greatly facilitate the circulation of commodities and people and increase the accessibility of rural areas to external resources and markets, making it more feasible for non-agricultural activities to be located in rural areas. The use of modern communication services in business activities, especially IDD telephone and fax services, further enhances the above decentralizing trends. These are also important reasons why the scope of industrialization in the form of TVE development can be easily extended into the rural settlements in Fujian, as mentioned earlier.

To summarize, when the Chinese government converted rural townships into towns through administrative measures, other parallel, albeit latent processes were also going on to bring substantive urban functions and elements to rural settlements. These processes have been facilitated by the conditions of high population densities and good transport and communication facilities, which make spatial concentration in the form of migration less important than suggested by the conventional theories and the past experience of developed countries. This kind of transformation may not be counted as real urban growth, however it does bring substantive urban elements to the rural settlements. If this is taken

into account, the real extent of rural-urban transition in Fujian would be much more profound than the conventional data would suggest.

3.3 The ‘real urban growth’ in the township-town transformation and its role in Fujian’s urbanization: evidence from the 2000 census

So far we have examined the ‘artificial urban growth’ represented by the TPT and the substantive increase in urban elements brought by the development of TVEs and the penetration of urban facilities in the rural areas, which are not regarded as real urban growth by conventional urban criteria. These are not the complete pictures of township-town transformation in Fujian. After the initial stage of dispersed development, TVEs in Fujian as well as in many other parts of China have started a new round of more concentrated development (Fan 1998; Zhu 2000). One important aspect of the new development has been the emergence of industrial zones. These industrial zones are usually part of the built-up areas of towns and thus have contributed to the development of new urban centers. The inflow of foreign investment in the rural areas since the late 1980s, which is often connected with TVEs and mostly concentrated in major development and industrial zones, has further enhanced the above trend. In terms of urban facilities, TVE development and foreign investment have also promoted the development of public facilities, infrastructure, and service sectors in the town centers, and the revenues from TVEs and other enterprises have been the major source of funds financing these developments. Therefore, while the latent processes behind and conditions conducive to Fujian’s township-town transformation examined in the previous section have brought urban functions and elements down to the bottom hierarchy of rural settlements, they have also led to spatially more concentrated physical changes, although in a delayed and more decentralized way than conventionally conceived. This kind of spatial concentration has made a real contribution to urban growth and urbanization in conventional sense, and it is the major task of this section to try to assess this kind of ‘real contribution’ of township-town transformation to Fujian’s urban growth by conventional criteria.

Fortunately, the new criteria for the urban population adopted in the 2000 census

mentioned earlier make the assessment possible. Because these criteria are not only based on the existing official urban definitions, but also take into account the population of the physically urbanized areas in the cities and towns, they are in line with the common conception of what is urban and what is the urban population, and the populations based on them should be regarded as 'real urban' by conventional standard.

Table 6 provides some data on Fujian's urbanization from the 2000 and 1982 censuses. The data for the 1982 census have been adjusted because the urban criteria used in the 1982 and 2000 censuses are not exactly the same, with the former including too many agricultural people for the cities with a population of 200,000 to 500,000 and 500,000 to 1 million, especially the former, according to my analysis on the data for individual cities⁸. This is caused by the fact that those medium-sized cities included far-flung suburban areas. A consensus has been reached by most students of urbanization in China that within the really urbanized area of a city, the agricultural population of the suburban area of the city should not be more than 30 per cent of the total population of the city (Zhou and Shi 1995). The 1982 census data have been adjusted according to this principle and the adjusted data listed in Tables 6 and 7 should be comparable with the 2000 census data.

⁸ The original data for the populations of cities and the population of towns (with the populations of the suburban areas of the cities or the agricultural population of towns in the parentheses) are: Fuzhou 1,129,251 (341,926); Xiamen 510,656 (180,321); other medium-sized cities 1,671,341 (1,019,556); towns 2,168,874 (651,000) (Population Census Office of Fujian Province 1984:41; Statistical Bureau of Fujian Province 1991: 41, 43).

Table 6 Urban populations and their decomposition, 1982 and 2000

		censuses		Increase	Rate of
		2000 census	1982 census	between the	increase
				two	between two
				censuses	censuses
Total population	Number	34,100,663	25,872,917	8,227,746	31.80
The population of cities and towns	Number	14,171,718	4,704,574	9,467,144	201.23
	% of total population	41.56	18.18	23.38	
The population of towns*	Number	6,351,279	2,168,874	4,182,405	192.84
	% of the population of cities and towns	44.82	46.10	-1.28	
The population of cities	Number	7,820,439	2,535,700	5,284,739	208.41
	% of the population of cities and towns	55.18	53.90	1.28	
The population of cities existed in 1982 census	Number	5,189,807	2,535,700	2,654,107	104.67
	% of the population of cities and towns	36.62	53.90	-17.28	
The population of newly designated cities after 1982	Number	2,630,632	0	2,630,632	
	% of the population of cities and towns	18.56	0	18.56	

Sources: Population Census Office of Fujian Province 1984: 15; preliminary tabulations of the 2000 census of Fujian province.

* This does not include the population of towns that were treated as part of cities and whose populations were included in the population of cities in the relevant census.

Some important insights into Fujian's urban population dynamics in general, the growth of towns and their population in particular, and their roles in Fujian's urbanization and urban population dynamics, can be obtained by analyzing this table, especially by decomposing the total urban population and its growth into the two components of cities and towns.

First, Table 6 presents a general picture of Fujian's urbanization between the two censuses. It can be seen from the table that Fujian's urban population and its proportion of the total population increased from 4.7 million and 18.2 per cent to 14.17 million and 41.6 per cent. This represents an average annual increase of 6.3 per cent of the urban population and of 1.3 percentage point of its proportion of the total population, a very significant growth

indeed.

Second, during the period between the two censuses, the population of towns increased 192.8 per cent. This growth has been in turn mainly caused by the emergence of new towns rather than by the growth of existing towns, which is confirmed indirectly by the fact that the average population size of the towns in Fujian for the 2000 census was 10,498 people, smaller than that of the towns for the 1982 census (18,225 people).

Third, while the population of cities increased by 208.4 per cent, faster than the population of towns, it is important to note that the population of the newly designated cities after the 1982 census has been a result of the growth of towns and the transformation of their populations into city populations during the period between the two censuses. If these populations are separated from the population of cities and added to the contribution of towns, then 63.4 per cent of the total urban population of the 2000 census in Fujian is a direct or indirect result of town development. In contrast, the population of cities that already existed before the 1982 census accounted for only 36.6 per cent of the total urban population in the 2000 censuses. This is a significant decrease from the 53.9 per cent share of their populations in the total population. Clearly, in the urban growth and urbanization during the period between the two censuses, the emergence of new towns or the growth of existing towns have played bigger roles than the expansion of cities already existed before the 1982 censuses.

The dominance of towns in Fujian's urban growth and urbanization can be demonstrated in a more direct way. It can be calculated from Table 6 that the increase in the town population is a major source of urban growth in Fujian between the two censuses. This is evidenced by the fact that the increase in the population of towns accounts for 44.2 per cent of the increase in the population of cities and towns, and the increase in the population of newly designated cities, which were transformed from towns, accounted for 27.8 per cent of the total population. These two sources account for 72 per cent of the increase in urban population growth in Fujian in the period between the two censuses, showing the dominant role of town related urban growth.

Fourth, the above role of towns in the urbanization process has important spatial implications for both the urban system of the province as a whole and the internal spatial structure of individual municipalities in Fujian, especially the newly established ones. For the urban system, the emergence of new towns and the graduation of many small towns into the rank of small cities caused the increase in both the share of the population of towns and cities smaller than 100,000 and the share of the population of small cities with a population of 100,000-200,000. If small cities and towns are combined together, the proportion of their populations of the population of cities and towns increased for from 52.4 per cent to 55 per cent during the period between the two censuses, overshadowing other larger cities in the urban system (Table 7). It is noteworthy that although million-plus cities also increased rapidly between the two censuses, the proportion of their population in the urban system decreased. Clearly, Fujian's urban growth and urbanization between the two censuses have not led to the increase in urban primacy, a common phenomenon in many other developing regions.

	2000 census		1982 census	
	Number	% of total	Number	% of total
Cities with a population of 1 million or more	3, 334, 923	23. 53	1, 129, 251	24. 00
Cities with a population of 5,000,000-1 million	608, 016	4. 29	0	0. 00
Cities with a population of 200,000-500,000	2, 430, 717	17. 15	1, 104, 458	23. 48
Cities with a population of 100,000-200,000	1, 204, 334	8. 50	301, 991	6. 42
Cities with a population of less than 100,000 and towns	6, 593, 728	46. 53	2, 168, 874	46. 10
The population of cities and towns	14, 171, 718	100	4, 704, 574	100

Sources: Population Census Office of Fujian Province 1984: 15; preliminary tabulations of the 2000 census of Fujian Province.

For individual municipalities, an important characteristic of their internal structure is that they are usually composed of one central city and many towns around it, which is different

from conventionally conceived cities. The central city and the towns are functionally interrelated, operating like a polycentric urban area. For example, in Jinjiang municipality, a place of 649 km², there are a city area with a population of 132,237, and 14 towns with the total population of towns of 347,591 and an average population of 24,828 for each town. Almost all newly designated municipalities in Fujian have a similar pattern of internal spatial structure. Such a spatial structure bears some similarities to the polycentric urban form appearing in developed countries, however under very different socio-economic conditions, thus requiring new planning framework and ideas.

Fifth, an important change in the composition of the urban population between the two censuses is the growth of the floating population, which is defined as people residing in a township-level place different from where they have their household registration. In the 1982 census, China was still in the very initial stage of loosening control on migration, and ‘the floating population’ was very much a negligible part of the urban population⁹ However in Fujian’s 2000 census, among the people living in the towns, 18.7 per cent of them were those who had lived for half a year or more in a township-level place other than where they had their household registration. In Jinjiang, the best-known example of TVE development in Fujian, the floating population had grown so big that it was half the size of the local population. Compared to the initial stage of TVE development and *in situ* urbanization where local people and labor force played a major role, as I demonstrated elsewhere (Zhu 2000), this is a noticeable change. It suggests that the *in situ* township-town transformation may not be purely *in situ*; after a certain time of development, the *in situ* urbanized places may become new growth centers and attract migrants. However, this is still different from the conventional patterns of urban growth where existing cities, especially large cities, rather than newly emerged cities, are the major destination of migrants.

⁹ Detailed data on the floating population dis-aggregated for cities and towns in the 1982 census are not available. However, one may get some idea about the floating population at that time from the following fact: the proportion of those people who had left the county-level places where they had their household registration for one year or more in Fuzhou was only 1.9 per cent, which was the highest in Fujian Province.

By now we have answered the question raised at the heading of this section: the township-town transformation in Fujian has not been only administrative fiat. Rather, it not only has brought about many urban or urban like changes in the rural settlements, but more importantly, has been the main contributor to urban growth in Fujian. Even by conventional standards, the township-town transformation has profound implications for Fujian's urbanization process. Given the dominant role of towns in Fujian's urbanization and the wide spread distribution of towns, it is clear that such transformation have important roles in diverting the potentially highly concentrated urban population growth into many new urban or quasi-urban centers, and bringing widespread regional development to a large rural population. This is the essence of *in situ* urbanization, a new form of urban growth that is different from the conventional urbanization patterns.

4. Implications of the township-town transformation for monitoring and understanding urban population dynamics

The analysis in section 3 has important implications for monitoring and understanding urban population dynamics in many developing regions.

First, the dominant roles of *in situ* townships-towns transformation in Fujian's urbanization process suggest that monitoring the evolution of rural settlements is increasingly important in understanding urban growth and urbanization, especially in densely populated areas. As this form of urban growth and urbanization mainly results from the evolution of rural settlements themselves and occurs beyond the well-defined urban areas, it makes the traditional conceptual and statistical framework focusing on rural-urban migration and the growth of existing cities increasingly inadequate, and requires that more attention be paid to reclassification of rural settlements and the emergence of new urban or quasi-urban centers. Fujian's experience shows further that in monitoring and understanding urban population dynamics resulting from rural-urban reclassification, one needs to be cautious in using official urban administrative boundaries, and should conduct careful analysis based on indicators reflecting increase in substantive urban characteristics at a low level of the residential hierarchy. The share of non-agricultural employment, population density,

and urban or urban-like facilities are among the most important ones of such indicators. In Indonesian, a score system covering all the above three dimensions is used in identifying new urban units (Firman 1992). This seems to be a right way to go and could be taken as reference in other countries in designing more sophisticated criteria to monitor and understand rural-urban settlement changes.

Second, as shown in Fujian's township-town transformation, unlike the urbanization process characterized by rural-urban migration, urbanization resulting from rural settlement transition is a more widespread and gradual process in which urban functions and elements accumulate in many rural settlements before some of them reach the officially defined urban standard. This makes it necessary to monitor the increase in urban characteristics in rural settlements on a widespread geographical basis. This is important not only for predicting and identifying new urban settlements resulting from the evolution of rural settlements, but also for the planning of rural settlements with urban functions and characteristics but not yet up to the urban standard¹⁰. The size of the population of this kind of rural settlements should not be under-estimated. If we take the size of the population involved in the process of TVE development as a proxy for the functional changes in Fujian's rural settlements, and multiply the number of TVE employees in Fujian Province in 1999 by 1.9, the ratio of the number of TVE employees and their dependents to the number of TVE employees¹¹, then we can estimate that the total population involved in the rural-urban transitional process is about 10 million, accounting for 30 per cent of the total population of Fujian Province in that year. Such a large population certainly deserves more attention.

In China, the need of monitoring rural-urban changes in widespread rural settlements not only has been realized by academics (Zhu 1999:196-198), but also is being promoted by

¹⁰ Market towns, which are local centers but are not designated by the government, and 'central villages', each of which is a local center for several villages but smaller than the town center, are good examples of such transitional rural settlements

¹¹ It is assumed that this ratio is slightly lower than the ratio of the total population of Fujian Province to its working population, which was 2.0 according to the 1995 1 per cent population sample survey. This assumption is based on the fact that in the areas with well-developed TVEs, more women participate in the economic activities.

urban planners. In the last 20 years Chinese urban planners have increasingly realized that TVE and small town development have made the dualistic urban planning framework out-of-date, and started to explore a new framework treating rural and urban as integral parts of regional development. As a result of the new thinking, China's *Urban Planning Act* will soon be revised as Urban and Rural Planning Act (Correspondents of the Journal 2000:6-7). This kind of change in the field of urban planning is a vivid indication of the blurring of the rural-urban dichotomy in real life, and makes it even more necessary to adopt non-dichotomous approaches in monitoring urban growth and urbanization by taking into consideration functional changes and urban characteristics in the traditionally defined rural settlements.

5. Conclusions

This paper addresses the important topic of *in situ* urbanization, a neglected but important area in urbanization studies, through examining the transformation of rural townships into towns in Fujian Province of China. Based on the preliminary results of the 2000 census and other surveys and statistics, the paper assesses the contribution of township-town transformation to China's urban growth and urbanization from different perspectives. It is found that while the township-town transformation has been achieved through administrative measures on the surface, some parallel, albeit latent processes bringing substantive urban elements to the rural settlements have played even bigger roles in the transformation. Meanwhile, the analysis confirms that the transformation has indeed led to the fast increase in the real urban population of towns, dominating urban growth and urbanization since the 1980s. Therefore, China's township-town transformation has not been purely 'administrative fiat' or 'statistical artifact'. Rather it reflects the increasingly important roles of *in situ* rural-urban transformation in today's urbanization process of densely populated developing regions, and represents new ways of urban growth and urbanization. As this new ways of urban growth and urbanization involves not only the emergence and development of real urban centers, but also functional changes and the increase in urban characteristics in officially defined rural settlements, the paper suggests that new ways of conceptualizing, monitoring, and measuring settlement changes, which

can cover the whole continuum of rural-urban transition, are needed in today's urbanization studies.

References

- Brockerhoff, M. and E. Brennan, 1998. 'The poverty of cities in developing regions', *Population and Development Review* 24(1):75-114.
- Chan, K. W., 1994. 'Urbanization and rural-urban migration in China since 1982', *Modern China* 20(3):243-81.
- Chen, J. Y. and J. Han, 1993. *Zhongguo Nongcun Gongyehua Daolu (China's Path to Industrialization)*. Beijing: China Social Science Publishing House.
- Chen, J. Y. and G. M. Huang (eds), 1991. *Fujiansheng Jingji Dili (The Economic Geography of Fujian Province)*. Beijing: Xinhua Publishing House.
- China, State Council, 1984a. 'Circular of the State Council approving the report of the Ministry of Civil Affairs concerning the adjustment of the criteria for establishing towns' (in Chinese), *Guowuyuan Gongbao (Bulletin of the State Council)*, No.30:1012-4.
- China, State Council, 1984b. 'Circular from the State Council concerning the question of peasants entering towns for settlement' (in Chinese), *Guowuyuan Gongbao (Bulletin of the State Council)*, No.26: 919-20.
- Correspondents of the Journal, 2000. 'Planning information' (in Chinese), *Chengshi Guihua (Urban Planning Review)* 24 (10):6-7.
- Fan, J., 1998. 'A case study on the role of rural industrial development in the process of urbanization in China' (in Chinese), *Dili Kexue (Scientia Geographica Sinica)*18 (2):99-105.
- Firman, T, 1992. 'The spatial pattern of urban population growth in Java, 1980-1990', *Bulletin of Indonesian Economic Studies* 28(2):95-109.
- Friedmann, J., 1966. *Regional Development Policy: A Case Study of Venezuela*. Cambridge MA: MIT Press.
- Goldstein, S., 1990. 'Urbanization in China, 1982-1987: effects of migration and reclassification', *Population and Development Review* 16(4):673-701.
- Hackenberg, R. A., 1980. 'New patterns of urbanization in Southeast Asia: an assessment', *Population and Development Review* 6(3):391-419.

- Heilig, G., 1997. 'Anthropogenic factor in land-use change in China', *Population and Development Review* 23(1):139-68.
- Jones, G. W., 1997. 'The thoroughgoing urbanisation of East and Southeast Asia', *Asia Pacific Viewpoint* 38(3):237-49.
- Lee, Y. S. F., 1989. 'Small towns and China's urbanization level', *China Quarterly* 120:771-86.
- Li, Q. X., J. A. Chen, and M. Yu, 1988. *Fujian Xiaochengzhen (Small Towns in Fujian)*. Fuzhou: Fujian Cartographic Publishing House.
- Ma, L. J. C. and G. H. Cui, 1987. 'Administrative changes and urban population in China', *Annals of the Association of American Geographers* 77(3):373-95.
- Ma, L. J. C. and C. S. Lin, 1993. 'Development of towns in China: a case study of Guangdong Province', *Population and Development Review* 19(3):583-606.
- McGee, T. G., 1991. 'The emergence of Desakota regions in Asia: expanding a hypothesis', in N. Ginsburg, B. Koppel and T. G. McGee (eds), *The Extended Metropolis: Settlement Transition in Asia*, pp. 3-25. Honolulu: University of Hawaii Press.
- Pernia, E. M., 1998. 'Population distribution in Asia', in United Nations, Department for Economic and Social Affairs, Population Division (ed.), *Population Distribution and Urbanization – Proceedings of the United Nations Expert Group Meeting on Population Distribution and Migration, Santa Cruz, Bolivia, 18-22 January 1993*, pp. 102-116. ST/SER.R/133. New York.
- Population Census Office of Fujian Province, 1984. *Fujiansheng Disanci Renkou Pucha Ziliao Huibian (Tabulation on the 1982 Population Census of Fujian Province)*. Fuzhou.
- Population Census Office of Fujian Province, 1992. *Fujiansheng 1990 Renkou Pucha Ziliao (Dianzi Jisuanji Huizong) (Tabulation on the 1990 Population Census of Fujian Province (Computer Tabulation))*. Beijing: China Statistical Publishing House.
- Rondinelli, D. A., 1983. *Secondary Cities in Developing Countries: Policies for Diffusing Urbanization*. Beverly Hills: Sage.
- Speare, A., P. K. C. Liu, and C. L. Tsay, 1988. *Urbanization and Development: The Rural-Urban Transition in Taiwan*. Boulder: Westview Press.
- Statistical Bureau of Fujian Province, 1985. *Fujian Tongji Nianjian (1984) (Fujian Statistical Yearbook (1984))*. Fuzhou: Fujian People's press.

- Statistical Bureau of Fujian Province, 1991. *Fujian Tongji Nianjian (1991) (Fujian Statistical Yearbook (1991))*. Beijing: China Statistical Publishing House.
- Statistical Bureau of Jinjiang Municipality, 2000. *Jinjiangshi guomin jingji tongji ziliao (1999) (The statistical material on the national economy in Jinjiang Municipality (1999))*. Jinjiang.
- United Nations, 1980. *Patterns of Urban and Rural Population Growth*. New York.
- United Nations, 1993. *State of Urbanization in Asia and Pacific*. New York.
- United Nations, Department for Economic and Social Affairs, Population Division, 1998a. *World Urbanization Prospects: The 1996 Revision*. ST/ESA/SER.A/170. New York.
- United Nations, Department for Economic and Social Affairs, Population Division (ed.), 1998b. *Population Distribution and Urbanization – Proceedings of the United Nations Expert Group Meeting on Population Distribution and Migration, Santa Cruz, Bolivia, 18-22 January 1993*. ST/SER.R/133. New York.
- Weber, A. F., 1968. *The Growth of Cities in the Nineteenth Century*, third printing. Ithaca, NY: Cornell University Press.
- Zhou, Y. X. and Y. L. Shi, 1995. 'Towards establishing the concept of physical urban area in China' (in Chinese), *Dili Xuebao (Acta Geographica Sinica)* 50(4):289-301.
- Zhu, Y., 1998. 'Formal' and 'informal urbanization' in China: Trends in Fujian Province', *Third World Planning Review* 20(3):267-284.
- Zhu, Y., 1999. *New Paths to Urbanization in China: Seeking More Balanced patterns*. New York: Nova Science Publishers.
- Zhu, Y., 2000. 'In situ urbanization in rural China: Case studies from Fujian Province', *Development and Change* 31(2):413-434.