Mianyang: The Legacy of State Socialism and Local Construction

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The current effort to interpret China's remarkable growth rates of the last three decades tends to concentrate almost exclusively on the post-Mao era for an explanation of reform and its consequences. However, the thirty years' history of state socialism under Mao, though much neglected, to a considerable extent underlies current rapid economic growth (Naughton, 2010; Zhao, 2010; Nolan, 2004; Chen and Goodman, 2012). The developmental trajectory of Mianyang, a city-level economy located in the Southwest Province of Sichuan, well exemplifies how China's past experiences of socialist construction—particularly the 'Third Front Construction Project'—has bequeathed useful legacies for its current growth and much likely future development too.

Equally important, the Mianyang case provides an opportunity to assess from a local perspective the Central Government's two large-scale schemes to develop China's vast West (namely 'The Third Front Construction Project' in the 1960s and the 'Open Up the West' Campaign in the 2000s) and their actual impact on the local economy. The seminal research of Naughton on the 'Third Front Construction' described it as a costly and inefficient centrally-directed programme of development that negatively affected China's economic development back then and left behind problems for the future (Naughton, 1988). However, a close examination of Mianyang's situation suggests that while this could well be the case at the macro level, considering the profound social, economical and historical differences across the country, the legacy of the 'Third Front Construction' might not necessarily be so negative at the local level. Likewise, although impacts and consequences of the 'Open

Up the West' project remains unclear from a central perspective, it would seem to have clearer and more positive consequences when considering a local economy such as Mianyang (Goodman, 2004).

Sichuan's Profile and Development under the Chinese Communist Party (CCP)

Sichuan Province has long been known as China's 'heavenly kingdom' (tianfuzhiguo) because of its good climate, fertile soil and advanced agricultural technologies. The Chengdu Basin in the centre of the province is protected by the surrounding mountains from many wars in the past and thus had been an asylum for escape in ancient times. Nowadays, Sichuan's significance in China's development is undeniable, not least because of its large population, vast area and agricultural production. By the end of 2009, Sichuan had a population of 81.85 million, ranking it fourth largest among China's provinces (Statistic Yearbook of China, 2010). The province's land area is 485,000 km², ranking it fifth largest among China's provinces (Xin, 2004). In the year of 2009, Sichuan's grain output was 3,194.6 tons, ranking it fourth and rice output was 1,520.2 tons ranking it sixth among China's provinces (Statistic Yearbook of China, 2010). Sichuan is also exceptional in that it is the home province of Deng Xiaoping, the chief proponent of China's reform. Deng left his home county of Guang'an at the age of sixteen. Though he subsequently spent most of his life in other provinces and even overseas, he retained a strong Sichuan accent and frequently made reference to his Sichuan nativity. Because of his close attachment to Sichuan, Deng was so concerned with its development that he had inspected the province many times after he assumed a leadership position in the Central Government. In 1982, he even took the visiting president of the Democratic People's Republic of Korea (DPRK), Kim Il Sung, with him to Sichuan. His

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¹ For example, Deng said, 'I'm from Sichuan' in 1952 on an inspection trip in the province. In 1987, when meeting a delegation from Yugoslavia, Deng said 'Sichuan is my home place' (Li, 2004; Hu, 1995; Goodman, 1994).

statement to the leaders of Guang'an County in 1986, 'You must construct Guang'an well', still remains the motto of that county (Tan and Chen, 1999).

Deng Xiaoping had praised Sichuan as 'the home of reform' (Li, 2004). In the late 1970s, with Deng Xiaoping obtaining the de facto administrative power of the country and Zhao Ziyang appointed as First Party Secretary of Sichuan, the province started its policy experimentation, including those with decentralization (Bramall, 1999). In 1977, Jinyu Commune of Guanghan County was the first at this time to adopt a system of group contracting.² As a result of the initial success in Guanghan, the system spread widely and was approved by the Third Plenum of the 11th Central Committee of the Communist Party of China. Guanghan was also the first 'structural reform experimental county' in the nation, because of its pioneering practice in restructuring communes (Shue, 1984). In 1980, Xiangyang Commune of the county was officially nominated as a township and the commune government thus became the first township government of China (Li, 2004). By the end of 1982, every people's commune in Guanghan had been reorganized and redesignated as a township, which made it prominent in China's process of reform and opening. Similarly for urban China, in the mid-1980s Sichuan was the first province to experiment with converting state firms into joint stock corporations (McNally, 2004).

Sichuan's development, and particularly its industrialisation, has been shaped dramatically by China's two major Western Region development strategies: the 'Third Front Construction Project' (1965-1975) and the 'Open Up The West'

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² The reform of decentralization in Sichuan in the late 1970's was similar to that in Xiaogang Village, Fengyang County, Anhui Province, as both were initiated by poor farmers and later obtained support from the local governments (at the county level first and then the provincial level). Eventually both were endorsed by the Central Government. However, Anhui Provincial Government acted more actively by making a series of regulations to promote the Xiaogang model across the province. It seemed that for this reason, the experiment in Anhui Province received more publicity. Moreover, although both were about contracting collective land to farmers, in Sichuan the practice was contracting land to small groups of farmers and in Anhui the practice was contracting land to households of farmers.

Campaign, starting in 1999 (Naughton, 1988; Goodman, 2004). At the same time, the province's industrial development can be dated back even further to the early 1950s. Since 1952, the Central Government of China has been setting plans of national development every five years. Facing a near collapsed economy as a result of decades of warfare, the newly established government in its First Five Year Plan (1952-1957) emphasized revitalising national industrial development, especially that of heavy industry (Solinger, 1977). Given that at the time the country's only industries were all located in the eastern coastal area, the Central Government committed to change the unbalanced regional distribution of industry, despite playing to the strengths of the reviving economy during the early 1950s. From 1952 to 1957, a great majority of the newly built industrial projects, including the 156 projects constructed with the help of the Union of Soviet Socialist Republics (USSR), were located in the less-developed central and western provinces of Sichuan, Yunnan, Xinjiang, Shaanxi, and Gansu (Chen, 2011). A railway network was built to connect the major West China cities, and that network still remains an important part of the transportation system now after half a century (Zou, 2002). In the case of Sichuan, a railway connecting its major cities of Chengdu and Chongqing, as well as several industrial projects constructed within the province added considerably to the performance of its economy. ³ Despite this, Sichuan remained largely an agrarian province, with agriculture as the priority of its economy until the early 1960s (Goodman, 1986).

The Central Government's first large-scale scheme to develop the West was the 'Third Front Construction Project', which lasted twelve years and involved 13 provinces in the Southwest and Northwest of China, from 1964 to 1975. The notion of 'first', 'second' and 'third' fronts was developed by the Central Government in the

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³ Chongqing City remained under the jurisdiction of Sichuan Province until 1998, when it was established as China's fourth municipality directly under the Central Government.

1960s and referred to China's politico-military situation in the wider region. The 'first' front referred to the coastal and border areas of China. The 'third' front referred to the underdeveloped rear areas of Southwest and Northwest China, which includes Sichuan, Guizhou, Yunnan, Shaanxi, Gansu, Ningxia, and Qinghai, and the areas between the 'first' and 'third' fronts are the 'second' front. In the early 1960s, the once friendly relationship between the People's Republic of China (PRC) and the USSR went sour, which led to armed conflicts on China's northern border. In 1962, the Chinese and Indian militaries exchanged fire on the western border of the PRC. Later, the United States became engaged in the Vietnam War, which was taken as threatening China's Southeast border. Moreover, there was also the fear that the Kuomintang forces in Taiwan might launch an attack on the mainland, especially the coastal cities (Naughton, 1988). Understandably, border turbulence caused strong or even over- reaction on the part of the PRC Government, especially as they lacked diplomatic communications with other countries and were shunned by the Western world. The threatened PRC Government felt they might face multiple wars and thus started to reconsider its national defence system.

In 1964, the Central Government decided to shift the focus of its work in economic development from improving the living standard of the people to improving its national defence abilities. To prepare protection in the event of war, the Second and Third Fronts were chosen as the location for the development of the national defence industry. The important factories, universities and research institutions, and government departments on the First Front would be moved to the Second and Third Fronts. All new projects would be dispersed and located in hidden terrains in the mountains, away from the front line of conflict with the outside world. With the Third Front being the rear area of the country, most of the new or moved projects and

institutions were located there and the new strategy of the Central Government was thus known as 'The Third Front Construction Project'. The idea at that time was that should war break out and China's Northeastern and Eastern industrial bases be destroyed, the Third Front—with Sichuan being its focus—would maintain the country's industrial production and sustain it throughout any war (Ning, 2000).

In the 'Third Front Construction Project', China invested some 205 billion RMB in the thirteen provinces of the Western Region: more than the total GDP of the whole country in the years 1953 to 1963 (Hu, 2007). Answering the call to 'Send Excellent Personnel and Excellent Equipments to the Third Front' millions of factory workers, cadres, intellectuals, as well as army soldiers and officers left their hometowns to work in the mountains of the West, which included the country's future leaders Hu Jintao (currently President of the PRC, working in Gansu from 1968 to 1981) and Wen Jiabao (currently Premier of the PRC, working in Gansu from 1968 to 1982). Although it could be argued that the construction of the Third Front helped to decrease the imbalance of economic development between East and West China, as Naughton's article suggests, the cost was extraordinarily high and distorted further industrial development across the PRC for many years afterwards (Naughton, 1988).

Sichuan became Southwest China's industrial base during and throughout the Third Front period. It was selected to be a focus of China's Third Front Construction Project for several reasons. Firstly, Sichuan borders seven other provinces and thus is a major link connecting the vast Western area. Secondly, Sichuan is located in China's outback. Its complex geographic conditions make it an ideal place for fortifying. Thirdly, the large population in Sichuan provided a sufficient labour force for construction. Fourthly, Sichuan's rich natural resources and fertile land provided sound foundations for discrete industrial development. And lastly, the industrial

projects constructed in Sichuan during the First Five Year Plan had equipped it with a reasonable industrial foundation.

From 1965 to 1975, the Central Government invested more than 30 billion RMB in Sichuan, approximately half of the country's total investment in the province in the years 1950 to 1985 (Available at:

http://www.phoer.net/history/dangdai/dangdai_03.htm (1999). Accessed 17/11/2011). According to the strategy of the Central Government, during the years of the 'Third Front Construction Project', there were to be 300 medium- and large-scale factories from the national defence industry, steel industry, metallurgy industry, power industry, machine industry and chemical industry established within this single province (Ding, 2003; Luo and Zhang, 2000). The construction of industrial projects led to the emergence and prosperity of medium-sized cities such as Mianyang (Ning, 2000). By 2000, more than 40 per cent of the province's fixed capital originated during the Third Front Construction Project (Available at:

http://www.bashu.net/history/dangdai/dangdai 03.htm (1999). Accessed 17/11/2011). Another benefit Sichuan received from the 'Third Front Construction Project' was the improvement of its transportation. As a province surrounded by mountains, Sichuan had long been known for its poor communications with the rest of China: 'it is more difficult to get to Sichuan than to enter heaven'. During the 'Third Front Construction Project', two railways were built (Chengdu-Kunming and Chongqing-Xiangfan), which, together with two other railways built in the First Five Year Plan, established a transportation system that connected Sichuan with the rest of the country (Naughton, 1988).

⁴ Tang Dynasty poet Li Bai wrote this as part of his work 'The road to Sichuan is difficult' in *Shu Dao Nan*.

The 'Third Front Construction Project' also promoted the development of science and technology in Sichuan. The single province of Sichuan saw the development of China's major nuclear power base, a satellite launch centre, national-level research centres and laboratories, as well as many colleges and universities, with the most advanced technology at that time as well as some of China's top scientists and technicians (Ning, 2000).

Despite all the benefits the 'Third Front Construction Project' brought to the west of China, it also had inevitable negative effects on both the area's and the country's economic development (Naughton, 1988). Firstly, the scale of the 'Third Front Construction' and the nature of terrain in which it was carried out made it a very expensive project. It reduced the Central Government's investmental capacity in the rest of the country. Secondly, the enterprises established under the rash project were poorly planned and designed, which led to operational inefficiency. Moreover, given China's economic situation and development level at the time, it was simply beyond the country's capacity to complete the overall project. As a result, in the late 1970s, having increased its communications and improved its relationship with the Western countries, the PRC Government started to seek to shift its industrial focus (Li, 2002). In 1980, Deng Xiaoping brought forward a new strategy of national development: to have the eastern costal area opened first, and to develop the central and western areas at a later stage with the new technology and investment that integration with the global economy would bring (Li, 2003).

The next three decades saw development centre on the eastern seaboard. As a result, there has been increasing inequality between the rich coastal provinces and the inland provinces (Wang and Hu, 1999). In order to address this problem, the Central Government started its second West Development Scheme in 1999—the campaign to

'Open Up the West'. In the new context, the redefined West of China refers to the provincial jurisdictions of Shaanxi, Gansu, Qinghai, Ningxia, Xinjiang, Inner Mongolia, Guangxi, Sichuan, Chongqing, Yunnan and Guizhou (Goodman, 2004). In 2001, three autonomous prefectures of three provinces were included into the scheme: the Xiangxi Tujia-Miao Autonomous Prefecture of Hunan Province, the Enshi Tujia-Miao Autonomous Prefecture of Hubei Province, and the Yanbian Korean Autonomous Prefecture of Jilin Province, despite their location elsewhere in the country) (Heike, 2004). The economic objectives of the campaign to 'Open Up the West' are to accelerate the area's infrastructure construction, adjust its industrial structure, to improve its eco-environment and to rejuvenate the country through science and technology (Ning, 2000). Unlike the 'Third Front Construction Project', the campaign to 'Open Up the West' does not have such a strong theme of state- and central planning. Instead, the idea is that central and local governments will create a favourable environment for the area's development and encourage capital (especially non-governmental investment), technology and personnel to move into the West, driven by market demand (Goodman, 2002).

In this new scheme, Sichuan has become a focus again, not least because 'it is the west's largest provincial level jurisdiction in terms of both population and the size of its economy' (Goodman, 2004, 332). What is more, as a multi-ethnic province, especially in its western mountain areas, Sichuan plays a role since the major goal of 'Open Up the West' is to 'accelerate the development of China's ethnic minority areas' (State Ethnic Affairs Commission of the People's Republic of China, 2010).

Among all the provincial-level jurisdictions Sichuan has the largest Yi Nationality

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⁵ Autonomous areas are territorial administrative units with substantial national minority populations. ⁶ It is noteworthy that Sichuan in the 'Open Up the West' Campaign differs from that in the Third Front Construction. Chongqing's establishment as a municipality in 1998 has changed Sichuan in terms of population, land area and socio-economic resources.

population, the second largest Tibetan population and the only Qiang Nationality population. Also, located in the upper reaches of the Yangtze River, it is necessarily significant in any consideration of the environmental protection of the vast Yangtze River Drainage Area. Predictably, as the campaign to 'Open Up the West' progresses, Sichuan's development will be further promoted and the province will play a higher profile role in the economy of the Western Region and the whole of China.

Mianyang: Showcase for the Legacy of the Past

Mianyang City in Sichuan Province is a showcase for how the experiences of the state socialist past can promote or even form present and future socio-economic development. Mianyang is located 91 km to the north of Sichuan's provincial capital Chengdu. A highway built in 1998 links Mianyang and Chengdu with a one-hour drive. Being a stop on the Baoji-Chengdu Railway (a major railroad that connects Central and Southwest China) and the junction where several intra-provincial highways meet, Mianyang is a transport hub in Northwest Sichuan. Under its jurisdiction, there are seven counties or county level cities and two districts. At the establishment of the PRC, Mianyang had an urban area of only 1 km² and a population of 2.86 million. At that time, the whole city had no industry except for a firepower plant (Cui, 1985). After half a century, Mianyang has grown into a city with a total area of about 20,000 km² and a population of 4.96 million (end of 2009) (Sichuan Province Bureau of Statistics, 2010). It is now regarded as the 'Second Capital of Sichuan Province', with its economy ranking no. 2 among all city-level cities in Sichuan, second only to the provincial capital Chengdu (see Table 1). During the last four decades, Mianyang has played a central role in Sichuan's economy and in 2009 it contributed 5.8 per cent to the province's GDP.

Table 1. Mianyang GDP 2001-09

Year	Sichuan GDP (100 million RMB)	Mianyang GDP (100 million RMB)	Mianyang GDP ranking in Sichuan	Mianyang percentage of Sichuan GDP
2001	4421.76	330.09	2	7.5
2002	4875.12	369.71	2	7.6
2003	5456.32	396.58	2	7.3
2004	6556.01	454.94	2	6.9
2005	7385.11	482.52	2	6.5
2006	8637.81	560.84	2	6.5
2007	10505.30	673.50	2	6.4
2008	12506.25	743.16	2	5.9
2009	14151.28	820.17	2	5.8

Source: Sichuan Province Bureau of Statistics, 2010, China Statistics Press, Beijing.

The development of Mianyang cannot be separated from the Third Front

Construction Project. With Sichuan being the centre of the country's Third Front

Construction at that time, Mianyang was the focus of Sichuan's development.

Mianyang has the steep Longmen Mountains to its northwest and the mountainous

part of the Sichuan Basin to its south. Its location was ideal to meet the requirement of

Third Front Construction to have new projects built in sheltered mountainous areas.

Moreover, Mianyang had a national railway line (Chengdu to Beijing) and a national
highway (from Chengdu to Xi'an) running through it, while local roadwork connected
all of its subordinate counties and half of the townships. Mianyang's geographic
features and convenient transportation system made it an ideal place to locate parts of
the national defence industry. During the sixteen years of the Third Front

Construction, more than 40 national defence enterprises and military research
institutions were set up or moved to Mianyang (Wu, 2005). This one small county

(Mianyang was only proclaimed as a city in 1985) became home of the China Academy of Engineering Physics, the China Aerodynamics Research and Development Centre, the China Gas Turbine Institute, and the biggest wind-tunnels in Asia, as well as other national keystone enterprises and institutions engaged in electronics, magnetics, IT and chemistry. These enterprises and institutions were equipped with the best technologies and personnel at the time and ranked at the top in their fields within China or even in some cases in the World (Wu, 2005). China's nuclear weapons industry was also based here, though large scale testing occurred elsewhere.

Such economic development that was clearly highly dependent upon one type of industry and macro-level central planning eventually proved problematic for Mianyang, as well as the broader West Region. In the early 1980s, with the Central Government shifting its emphasis from national defence to economic development, Mianyang's economy was adversely affected, as its many Third Front enterprises had to face a shrinking market. In this environment the Mianyang Government attempted to encourage the various local national defence industry enterprises to transform themselves into civil industries. Fortunately, the attempt turned out to be successful, which further facilitated the city's economic development.

Before the mid 1970s, Mianyang barely had any non-national defence production, but after the early 1980s the city gradually became a major producer of televisions, antennae, ultra sound machines and consumer goods related to fairly advanced technology (Wu, 2005). The Changhong Group was developed from a factory that used to produce military radar equipment. During the 1980s it imported television production lines from Japan turning itself into China's and then the world's

biggest television set producer.⁷ Another one-time radar equipment factory of the Third Front has given birth to the Jiuzhou Houseware Group, having successfully developed digital products for civil use and become one of the country's keystone enterprises. Nowadays, there are more than 160,000 scientists and technicians working in the various former Third Front research institutions. Even more impressively, in this one city there are 25 academicians of the Chinese Academy of Sciences and Chinese Academy of Engineering—China's two highest research institutions (Fang, 2004). In 1999, Mianyang's GDP was 31.1 billion RMB, ranking it as the fifth among all the cities in the 12 western provinces and the second in Sichuan Province (after only Chengdu) (Fan and He, 2000). Table 2 shows Mianyang's economic growth from 1978 (the start of China's economic reform) to 2009 when the latest statistics were available. By the mid 1980s, the city's GDP had more than doubled and in the last decade it had skyrocketed.

Table 2. Mianyang GDP 1978-2009 (100 million RMB)

Year	1978	1980	1985	1990	2000	2005	2009
GDP	12.26	14.91	28.06	61.17	317.89	482.52	820.17

Source: Sichuan Province Bureau of Statistics, 2010, China Statistics Press, Beijing.

The Changhong Group provides a perfect example of how the legacy of Mianyang's state socialist past could be exploited to promote its economic development in the post-state socialism economic reform era. Changhong has its origins in the state-owned radar factory built in Mianyang in 1958, as a major project of the Central Government's First Five Year Plan, and development under the Third Front Construction Project. When the Project came to a halt, Changhong, like many other China's military enterprises built in that period, shifted to civil production. In as

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⁷ Changhong will be further discussed later.

early as the 1970s, it started to develop television technology. One decade later, as national defence was no longer the country's major task, the Central Government gave the factory to Mianyang City Government. From that point, this used-to-be national-defence business started to be increasingly crucial to Mianyang's further economic development. In 1984, its production value counted for 25.3 per cent of the city's total industrial production value (Cui, 1985). In 1985, it imported a colour TV production line from Japan, which made the enterprise the most advanced and the biggest colour TV manufacturer in China. This was the beginning of a very successful 20 years.

According to Li Desheng, director of Mianyang Statistical Bureau, in the 1990s and 2000s, the Changhong Group contributed 40 per cent of Mianyang's total taxation from industry and agriculture (Gao, 2005). According to Chen Hong, deputy director of Mianyang Planning Commission, the Group's development from one single production site to five production sites has greatly promoted the expansion of the city's urban area. The enterprise (now more than 30,000 employees) also account for 5 to 10 per cent of Mianyang's total employment (Cai, 2004). Mianyang's only railway station is even regarded as 'Changhong's exclusive station'. In 2003, the Group brought Mianyang Railway Station so much profit that the railway station provided 28 trains with more than 1,500 carriages for Changhong's sole use (Gao, 2005). When the City Government started to build its High-Tech Zone, it asked Changhong to pay for the construction. Since Mianyang took over responsibility for the original factory at the heart of the enterprise, one mayor, one secretary of the City Party Committee, and one vice mayor have all come from Changhong.

For its part, in return, the Mianyang Government has supported the company's development. There is a saying in the city that 'there is nothing Changhong cannot

achieve in Mianyang'. From 1986 (shortly after Changhong was put under Mianyang's administration) to 1997, the City Government provided more than 1.5 billion RMB back to Changhong through tax returns (Zhang, 1997). When Changhong sought to expand its production area, the government gave it 800,000m² of prime land in the High-Tech Zone. In the mid 1990s, seeing that Changhong's transportation was restrained by the city's railway network, the government invested hundreds of thousands RMB to renovate its railways station. As the Changhong Group is given special treatment in Mianyang, it reports directly to the mayor, rather than the officials in charge of the department of industry. When the enterprise needs to discuss something with the government, it simply gives the government a call and then the appropriate officials will call at the enterprise to attempt to solve any problem (Cai, 2004).

The government's over-dependence and emphasis on Changhong soon presented a dilemma. The enterprise started selling televisions to the U.S. at a low price in 2001, in order to further develop its overseas market. Changhong's new strategy worked well at the beginning, as it sold 340 million US dollars worth of products into the US market, 10.7 per cent of the province's exports that year. However, what had seemed to be a promising future soon turned out to be a disaster. By the end of 2004, it had a bad debt of more than 460 million US dollars, uncollectable from its agent in the U.S. (Gao, 2005). To make matters worse, the U.S. International Trade Commission imposed tariffs of 20 to 78.45 per cent on exports of Chinese colour televisions in the same year, victimizing Changhong to some extent (USITO IT Weekly, 2004). As a result Changhong retreated from the U.S. market and the enterprise's overseas failure had a direct effect on Mianyang's economy. In the past, with the mighty Changhong at its back, Mianyang's economic growth remained

the second highest among cities in Sichuan (second only to the provincial capital Chengdu). In September 2004, Mianyang's monthly GDP growth was 11.6 per cent, ranked lowest of all cities in the province at that time (Gao, 2005).

The Mianyang Government tried its best to help Changhong out of its dilemma. In 2005, the City Government asked all its offices and departments to give practical support to Changhong. According to Tan Li, then Secretary of Mianyang CCP Committee, the government 'should do whatever the policies allow and whatever we can' to promote the Group's development (Wang, 2005). The city's newly constructed Economic Development Area provided Changhong with an area of 5 km² and planned to invest 480 million RMB in related construction. Fucheng District, where Changhong's headquarter is located, also saved an area of about 1 km² for the Group's use and invested 10 million RMB on its construction every year (Li, 2006). In 2005, several Sichuan banks provided the enterprise with a loan credit of 8.5 billion RMB (Gao, 2005). At the same time, the City Government also realized it should not be so dependent on Changhong for its future economic development. On reflection the government established new targets for its development: to construct a city of science and technology, to develop the economy of subordinate counties' and to build a 'harmonious' Mianyang. In the first half of 2005, it had acquired a record investment of more than 7 billion RMB.

Because of the legacy of its Third Front past, Mianyang took a further step in its development when in 2000 the Central Government announced that as a once-only decision Mianyang was to become a 'Science and Technology City (STC)' on the basis of the city's solid science and research environment (He, 2006). The many research institutions and technology enterprises set up during the Third Front Construction Project made this medium-sized city unique amongst the 12 western

provinces. In 2001, Mianyang was officially named by the Central Government as China's STC. By doing so, the Central Government hoped to make Mianyang a model of development through science and technology for the whole of the campaign to 'Open Up the West'. Its immediate goals were to develop an electronic and information industry as a crucial support industry and to change traditional industries into more high-tech activities.

The development of China's Science and Technology City is clearly a longterm project, but it has already brought some benefits to Mianyang. In 2000, after the Central Government made its determination Mianyang soon had its first university the Southwest University of Science and Technology. Less than one year after the establishment of the university, the Ministry of Education established it as one of the thirteen universities in the West to be given special favours in the campaign to 'Open Up the West' and one of China's top universities—the University of Science and Technology, China—was appointed as its tandem partner (Ministry of Education of the People's Republic of China, n.d.). Moreover, in 2001, despite the fact that a national-level high-tech zone had already been built in the city in 1995 and has been developing well ever since, three other development zones were established in Mianyang as a major part of the construction of the STC (Shu, 1997). These are the Modern Agricultural Science and Technology Demonstration Zone (focusing on the development of agricultural science and technology) the Pioneer Park (focusing on the conversion of military into civil production) and the Economic Development Area (focusing on the development of electronic, automobile, magnetism and medical industries). (Available at: http://www.nkq.gov.cn/ n.d. Accessed 17/11/2011; Available at: http://www.meda.gov.cn/ n.d. Accessed 17/11/2011; Available at: http://kcy.my.gov.cn/ n.d. Accessed 17/11/2011). All these new zones received

favourable policy settings from the provincial and local governments, in order to attract more investment and talented people into the construction of the STC. In 2007, Sichuan Government decided to further propel the development of the STC by giving the city government more rights on economic decision-making (Office of the CCP Sichuan Provincial Committee, 2007). Despite being among the most severely hit regions in the devastating earthquake in 2008, Mianyang's economy sustains a robust growth. As figures of Table 1 and Table 2 show, Mianyang so far remains the second biggest economy of Sichuan.

The importance of the state socialist past for Mianyang's present and future economic development can be further testified by a 2003-05 research project on Chinese women entrepreneurs In July and October 2005, interviews were conducted in Mianyang with nine local cadres and celebrities, as well as 56 women on leadership positions in enterprises (Chen, 2011). During the interviews, the cadres and local notables interviewed were asked to reflect on the city's socio-economic development. The majority of the interviewees (five out of nine) attributed Mianyang's economic prosperity to its strength in science and technology. They commented that the three decades of state socialism, especially the years of Third Front Construction, had left the city the legacies of many electronic enterprises, research institutes, secondary and higher education institutions, as well as educated personnel. Without the foundation set in The Third Front Construction Project, the Central Government would not have designated Mianyang as the only Science and Technology City, which would certainly attract investment into the city.

Twenty-two of the Mianyang women entrepreneurs reported that their enterprises were involved in science and technology. These women ran businesses in electronic, chemical, biological materials, telecommunications, and bio-medical

industries. This figure is outstanding, not only because a considerable proportion of these women are not engaged in what are commonly regarded as 'women's industries' (such as services and retail), but also because their businesses are of substantially high technology content. This seems to correspond to Mianyang's development trajectory as the centre of national defence technology during the Third Front period and nowadays as the centre of science and technology in western China. In some cases, these women were originally assigned to work in one of Mianyang's many stateowned military factories during the late 1970's or the early 1980's upon graduation from high schools or college. Later when the city's economic emphasis shifted to civil industry, they left their previous work to seek employment in the private sector and ended up with their own business. Such a path of personal development reflects Mianyang's developmental trajectory.

Conclusion

One should always be careful not to overgeneralise from a single case.

However, it could still be safely concluded from Mianyang's situation that the legacy of the Maoist past should not be dismissed when one tries to understand the economic prosperity that is occurring in China nowadays. Because of China's unprecedented growth rate since its economic reform, there is the liability to neglect its past before 1978. Despite any mistakes and disadvantages, the 30 years of state socialism did establish a sound foundation that provided the base for the later successful implementation of reform and opening. By stressing that, this article does not intend to negate Naughton's analysis of the Third Front Construction Project that it was a lengthy project that had exhausted the PRC Government's economic means.

However, from a micro perspective, the impact of the Third Front Construction on local economies does not necessarily have to be negative. In the specific case of

Mianyang, without the industries developed either during the First Five Year Plan or the Third Front Construction Project, it would not have been able to become the wealthy city that it is now. This, though, does not mean that central planning under Mao had set the blueprint of Mianyang's developmental path for the future. Likewise, many of the national defence projects developed in Mianyang during the Third Front Construction were not readily adaptable to civil production and had to be closed down later in the economic reform. Rather the accomplishments of the past have defined the characteristics of the city's development at present and the potentials in the future. In a nutshell, Mianyang's development is the result of its geopolitical position, central planning, state policies, support and involvement of the local government, as well as the adaptability of individual enterprises.

References

Bramall, C. 1999, Origins of the agricultural 'miracle': some evidence from Sichuan, China Quarterly, no. 143, 731-755.

Ding, B. 2003, Xin zhongguo qian sanshi nian shengchan jianshe de weida chengjiu burong fouding [The great achievements of the first 30 years of new China's production and construction are not deniable] [Online]. Available:

http://www.edu.cn.20030512/3084442_1.shtml [Accessed 17 Nov. 2011].

Cai, R. 2004, *Changhong shoucuo: zhengfu yu qiye qinmi zhi tong* [Changhong encountering failure: the pain brought by the close relationship between government and enterprise] in *Huaren Shikan*, issue 4.

China IT weekly briefing, USITO IT Weekly 21 May 2004.

Chen, D. 2011, *Zhongguo gongchandang lingdao xia de sanci xibu kaifa* [The three western development strategies under the leadership of the Chinese Communist Party],

Dangshi Bolan, issue 8

Chen, M. 2011, Tiger Girls: Women and Enterprises in the People's Republic of China, Routledge, London.

Chen M. & Goodman D. 2012, The China Model: one country, six authors, Journal of Contemporary China, vol. 21, no. 72, 51-75.

Cui, X. 1985, *Sichuan Chengshi Jingji* [The Urban Economy of Sichuan], Sichuan Kexue Jishu Chubanshe, Chengdu.

Economic Development Area, n.d. Available: http://kcy.my.gov.cn/ [Accessed 17 Nov. 2011].

Fan Y. & He Y. 2000, *Mianyang shi ge hao difang* [Mianyang is a good place], *Dangjian Zazhi*, issue 12.

Fang, H. 2004, *Mianyang: xibu xinxiu* [Mianyang: the rising star of the West], *Ditu*, issue 2.

Gao, X. 2005, *Mianyang: wei Changhong er tong* [Mianyang: Pain for Changhong], *Nanfeng Chuan*, issue 2.

Goodman, D. 1986, Centre and Province in the People's Republic of China: Sichuan and Guizhou 1955-1965, Cambridge University Press, Cambridge.

Goodman, D. 1994. Deng Xiaoping and the Chinese Rebolution: A political biography, Routledge, London.

Goodman, D. 2002, The politics of the West: equality, nation-building and colonisation, Provincial China, vol.7, no.2, p.127-150.

Goodman, D. 2004, The Campaign to Open Up the West: national, provincial-level and local perspectives' in China's Campaign to Open Up the West, D. Goodman (ed) Cambridge University Press, Cambridge.

He, Z. 2006, Zhongguo kejicheng wunian chenfu: Mianyang yangben [The five years ups and downs of the Science and Technology City of China: taking Mianyang as an

exemple] [Online]. Available:

http://www.southcn.com/finance/hot/200603210240.htm [Accessed 17 Nov. 2011]. Heike, H. 2004, The emergence of the Campaign to Open up the West: ideological formation, central decision-making and the role of the provinces in China's Campaign to 'Open Up the West', ed. D. Goodman, Cambridge University Press, Cambridge. Hu, X. 1995, *Bashu wenhua yu Deng Xiaoping* [Sichuan culture and Deng Xiaoping], *Maozedong Sixiang Yanjiu*, issue 1.

Hu, J. 2007, *Tashang xiri shenmi de jindi* [Stepping onto the mysterious forbidden region in the past] [Online]. Available: www.gmw.cn/02blqs/2003-11/07/26-7139D0F2B8A0AA2748256E3E0020777A.htm [Accessed 17 Nov. 2011].

Li, X. 2004, *Deng Xiaoping yu Gaige Zhi Xiang* [Deng Xiaoping and the home place of reform], *Maozedong Sixiang Yanjiu*, vol. 21, no. 6.

Li, C. 2002, Sanxian Jianshe tiaozheng gaizao de lishi kaocha [A historical research on the adjustment of the Third Front Construction], Dangdai Zhongguo Lishi Yanjiu, issue 3.

Li, S. (ed.) 2003, *Xibu Dakaifa yu Diqu Xietiao Fazhan* [To Open Up the West and Harmonious Regional Development], Shangwu Yinshuguan, Beijing.

Ministry of Education of the People's Republic of China, n.d. *Bawo duikou zhiyuan jiyu, cujin xuexiao kuaisufazhan—Xinan Keji Daxue duikou zhiyuan qingkuang huibao*, [To seize the opportunity of support and facilitate the rapid development of universities—a report on the activities of Southwest University of Science and Technology] [Online]. Available:

http://www.moe.edu.cn/edoas/website18/info11950.htm [Accessed 17 Nov. 2011].
Modern Agricultural Science and Technology Demonstration Zone, n.d. Available:
http://www.nkq.gov.cn/ [Accessed 17 Nov. 2011].

Li, Y. 2006, *Gongye qiangsheng: Changhong anqi longtou zhutui quyu jingji jueqi* [The industrial province: Mianyang raises its head and promotes the development of local economy] [Online]. Available:

www.wccdaily.com.cn/2006/03/24/200603244051944406218.htm [Accessed 17 Nov. 2011].

Luo Y. & Zhang Z. 2000, *Liangshan yao zai xibu kaifa zhong shixian xin de kuayue* [Liangshan must realize a new great-leap in China's western great opening-up], Sichuan Dangshi, issue 4.

Naughton, B. 2010, China's distinctive system: can it be a model for others?, Journal of Contemporary China, vol. 19, no. 65, 437-60.

Naughton, B. 1988, The Third Front: defence industrialization in the Chinese interior, China Quarterly, no. 115, 351-386.

Ning, Z. 2000, Lun sanxian jianshe yu Sichuan jingji kuayueshi fazhan [Discussion on Third Line Construction and the leaping economic development of Sichuan], Zhonggong Dangshi Yanjiu, issue 4.

Nolan, P. 2004, Transforming China: Globalization, Transition and Development Anthem Press, London.

Office of the CCP Sichuan Provincial Committee and Office of Sichuan People's Government, 2007, *Guanyu jiakuai tuijin zhongguo (Mianyang) kejicheng jianshe de yijian* [Opinions on propelling China Scientific City construction] [Online]. Available http://kjy.swust.edu.cn/s/125/t/338/a/6789/info.htm [Accessed 17 Nov. 2011].

Pioneer Park, n.d. Available: http://www.meda.gov.cn/ [Accessed 17 Nov. 2011]. Sanxian jianshe de chengjiu yu wenti [The achievements and problems of the Third Line Construction] [Online], 1999. Available:

http://www.phoer.net/history/dangdai/dangdai 03.htm [Accessed 17 Nov. 2011].

Sanxian jianshe yu wenhua dageming [The Third Line Construction and the Cultural Revolution] [Online], 1999. Available:

http://www.bashu.net/history/dangdai/dangdai_03.htm [Accessed 17 Nov. 2011].

Statistic Yearbook of China, 2010, Zhongguo Tongji Chubanshe, Beijing, 2010.

State Ethnic Affairs Commission of the People's Republic of China, 2010, *Xibu da kaifa jiakuai shaoshu minzu diqu fazhan* [Open Up the West accelerates the development of ethnic minority areas] [Online]. Available:

http://www.sss.net.cn/ReadNews.asp?NewsID=29861&BigClassid=2&SmallClassid= 2&SpecialID=0&dtitle=&belong=sky [Accessed 17 Nov. 2011].

Shu, D. 1997, Xiang xinshiji tingjin—ji Mianyang gaoxin jishi kaifaqu [Progress into the new century—on Mianyang High-Tech Zone], Zhongwai Fangdichan Daobao, issue 3.

Shue, V. 1984, The fate of the commune, Modern China, vol. 10, no. 3, 261.

McNally, C. 2004, Sichuan: driving capitalist development westward in China's

Campaign to 'Open Up the West', (ed.) D. Goodman, Cambridge University Press,

Cambridge.

Solinger, D. 1977, Regional Government and Political Integration in Southwest China 1949-1954, University of California Press, Berkeley.

Sichuan Province Bureau of Statistics, 2010, *Sichuan Tongji Nianjian* [Sichuan Statistical Yearbook], China Statistics Press, Beijing.

Tan W. & Chen Q. 1999, Yiding yao ba Guang'an jianshe hao—laizi Deng Xiaoping guxiang de baogao [You must construct Guang'an well—a report from Deng Xiaoping's home place], Chengxiang Jianshe, issue 4.

Wang, X. 2005, Mianyangshi lingdao shenru Changhong gongsi xianchang bangong [Top officials of Mianyang go to work on site in Changhong Company] at

http://news.xinhuanet.com/fortune/2005-05/19/content_2974787.htm.

Wang, S. & Hu A. 1999, The Political Economy of Uneven Development: The Case of China, M. E. Sharpe, New York.

Wu, F. 2005, *Jun zhuan min: guofang sanxian qiye de zhanluexing zhuanban* [From military to civil: the strategic change of the Third Line national enterprises]. Available: http://www.mianyang.gov.cn/MYGOV/150607817122775040/20050812/44969.html [Accessed 17 Nov. 2011].

Xin, W. 2004, Xibu dakaifa yu Sichuan dakaifang [The West Development and Sichuan's opening], *Juece Zixun Tongxu*, issue 2.

Zhang, W. 1997, Mianyangshi jingji kaocha de jidian sikao [A few reflections on inspection of Mianyang's economy], Zhonggong Sichuan Shengwei Shengji Jiguan Dangxiao Xuebao, issue 4.

Zhao, S. 2010, The China Model: can it replace the Western model of modernization?, Journal of Contemporary China, vol. 19, no. 65, 419-36.

Zou, L. 2002, *Xibu dakaifa yu guoji jingyan jiejian* [To Open Up the West and reference to international experiences] [Online] Available: http://www.china-review.com/sao.asp?id=7885 [Accessed 17 Nov. 2011].

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