

# Chapter 5

## The Development of Transportation Infrastructure and International Links in China's Southwest Region

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## CHAPTER 5

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Southwest China shares borders with Southeast Asia and South Asia. Yunnan Province shares borders with Viet Nam, Laos, and Myanmar. The length of boundary is 4,061 km, accounting for 20 percent of the total of China. Tibet also shares borders with South Asia, however, the infrastructure connection is limited due to the obstruction of the Himalayas.

### **1. Infrastructure Development and International Connection**

The transportation infrastructure provides the foundation for economic and social exchanges between different regions and countries. Currently, the comprehensive transportation infrastructure networks in Southwest China have been established with highways, railways, airways and waterways. Those networks have been also extended to the neighboring countries through the international corridors. For example, Yunnan Province as a gateway to Southeast Asia and South Asia, has made great effort to develop the infrastructure network with both Southeast neighboring countries and also South Asia countries. By designing GMS “three verticals and two horizontals” networks, some important transportation routes are put into priority, like Kunming-Mandalay-Yangon, Kunming- Laos- Bangkok, and Kunming-Hanoi-Haiphong highways.

## **1.1. The Development of Highway Network**

At present, the international highway from Yunnan Province to ASEAN countries is almost finished, which will significantly promote the economic and social relations between Yunnan Province and ASEAN countries. The sections of the international highway corridor in Yunnan Province, such as Kunming–Bangkok (Thailand), Kunming-Hanoi (Viet Nam), Kunming-Mandalay(Myanmar), Kunming-Myitkyina (Myanmar), have been upgraded into high rank. With the constructing of international highway corridor connecting ASEAN countries, the international highway for goods transport between Yunnan and ASEAN countries are gradually developing into prosperity. The passenger carrying capacity per year of the international highway is about 3 million, and the freight volume is above 5 million tons.

Yunnan Province has opened 16 international highway lines with Laos and Viet Nam. Some lines, for example, Kunming- Viangchan (Laos), Jinghong (Xishuangbanna)-Oudomxay (Laos) become very busy due to increasing transactions of goods and also personnel flows. At the same time, Sino-Myanmar international highway transport has made a breakthrough. Jinghong-Daruo-Nanban(Myanmar), Ruili-Muse(Myanmar)-Nankan, the two Sino-Myanmar travelling passenger highways coaches have been opened, and Chinese freight carriers could load and unload goods in No.105 freight yard from Ruili port to Muse, Myanmar.

The length of the Kunming-Laos-Myanmar highway is 1,807 km, with 688 km in Yunnan Province. By early 2008, most of part of it in Yunnan Province was built into expressway, and all second-class remaining parts will be rebuilt into expressway in 2011. The 229 km part in Laos was completed and reached to ASEAN's second class level. Actually, 1/3 of the part in Laos was invested by Chinese side with 30 million U.S. dollars. The 890 km part in Thailand was completed for a high class level. China and Thailand has agreed to construct Ban Houayxay- Chiang Khong Mekong Bridge on Kunming- Bangkok highway, and it is expected to be completed and opened to operation in 2011.

The length of Kunming-Hanoi-Haiphong highway is 759 km, with 400 km section in Yunnan Province. This section starting from Kunming to Hekou, a border city with Vietnam, has all upgraded into expressway in April, 2009. The Hekou-Lao Cai highway bridge was finished by China and Vietnam in September, 2009. The Yunnan Province section of Kunming- Hanoi highway (Kunming- Hoodoos-Mengzi) is expected to be built into expressway in 2011, while 100 km Hanoi-Haiphong section in Vietnam for high class highway.

The length of Kunming-Mandalay-Rangoon is 1, 899 km, and the section in Yunnan Province was upgraded into high speed or high rank in 2007. There are 9 main highways from Yunnan to Myanmar, and three of them has been built into high-speed highways. The highway which starts from Kunming, through Dali and Ruili, to Mandalay (Myanmar), has 731 km in Yunnan Province. 577 km of it was built into expressway, and the whole line would be upgraded in the near future. The highway which starts from Kunming through Baoshan, Tengchong, Houqiaon to Myitkyina (Myanmar) has 698 km section in Yunnan Province, and 570 km was built into expressway, the left part is the second class highway. The 105 km long second class highway in Myanmar was constructed by China. It was already open for operation in April, 2007. The highway which starts from Kunming, through Simao, Jinghong, Daluo, to Taungyi, Mandalay, has 672 km in Yunnan Province, and 462 km of it was built into expressway, the left part is still high class highway.

**Table 5-1. The Main International Highways of Yunnan Province in 2010**

Name	Yunnan		Overseas	
	Mileage	Level	Mileage	Level
Kunming—Hanoi—Haiphong	400	High speed	350	Second or third class
Kunming—Laos—Myanmar	688	High speed or second-class	1119	Second or third class
Kunming—Mandalay—Rangoon	732	High speed or second class	1167	Third class

*Resource:* 2010 Yunnan Traffic Development Report.

## **1.2. The Development of Railway Network**

The railway construction in Yunnan Province comes into the “golden age” due to increased investments into this sector. It is estimated that the length of railway in operation in Yunnan Province would reach to more than 4,000 km by 2020. According to the plan, by then, Yunnan will have a railway network with Kunming as the enter hub, connecting by 7 main inward railway lines and 4 outward railway lines, which will form the high-speed railway network connecting Yunnan to Pan Yangtze River Delta, Pan Pearl River Delta and Bo Hai Coastal Region and Southeast Asia.

### *Yunnan-Vietnam Railway*

Yunnan-Vietnam Railway is the first railway of Yunnan Province. Yunnan-Vietnam Railway starts from Kunming through Hanoi, to Haiphong (Vietnam) with total length of 854 km. It is one of the oldest railway in China, and also one of the longest narrow gauge railways with one meter width track gauge. The whole line is opened to traffic in 1910. From then on, it opened the door of Yunnan Province to the outside world. However, this railway is very old and cannot meet the demand of increasing economic and social exchanges. Every year, the import and export goods passing through Yunnan-Vietnam Railway is only about 1 million tons. It needs to be upgraded with modern technology.

### *Trans-Asian Railway*

This is a great initiative based on the cooperation of many countries. This railway network can be divided into 4 corridors. For Southeast corridor, it has three designing lines: the east line, middle line and west line. For the east line, it is Singapore-Kuala Lumpur-Myanmar-Phnom Penh-Ho Chi Ming City-Hanoi-Kunming, total length is 5,450 km; for the middle line, it is Singapore-Kuala-Lumpur-Myanmar-Vientiane-Shangyong-Xiangyun-Kunming, total length is 3,900 km; and for the west line, Singapore-Kuala- Lumpur-Myanmar-Rangoon-Rayli-Kunming, total length is 4,760 km. Three lines all start from Singapore and end at Kunming. In fact, the part of this corridor in China has been fully started. If this railway network could

be completed, it will provide a much improved infrastructure environment for Southwest China and Southeast countries.

#### *New Yunnan-Vietnam Railway*

New Yunnan-Vietnam Railway is the east line of Trans-Asian Railway, with length of 815 km, and the length on Chinese part is 419 km. Kunming-South Yuxi has been completed for 110 km, and new Yuxi-Mengzi line started construction in September, 2005, is 141 km. The new 168 km Mengzi-Hekou line started to build in 2009 and is expected to be finished in 2012. It passes through Hekou to connect Vietnam railway network and reaches to Haiphong. Vietnam has paid much attention to the construction of Yunnan-Vietnam Railway.

#### *Yunnan-Myanmar Railway*

It is actively proceeding. Kunming-Rangoon railway is the west line of Trans-Asian Railway. It is also the international corridor connecting Southwest China to Southeast Asia and South Asia, with total length of 1,920 km. The Chinese section is Kunming-Ruili Railway, with total length of 690 km. The 350 km long of Kunming-Dali section was already completed and is to build the double track line. Dali-Ruili Railway started operation in 2007. The length of Ruili-Lashio (Myanmar) section is 130 km and is a totally new line. By connecting Lashio, it could link 1,100 km Myanmar railway network and reach to Rangoon.

#### *Yunnan-Thailand Railway*

Kunming-Bangkok (Thailand) is not only the middle line of Trans-Asian Railway, but also the most convenient international main line connecting Yunnan, Southwest China and ASEAN countries. It started to construct already. The length of Kunming-Vientiane section is about 1210 km, while the Yunnan Province section is 710 km, and the 110 km long Kunming –Yuxi section has already been built. Yuxi-Mohan Railway is 600 km and is to construct soon. The planned railway line in Laos is 500 km and the line Vientiane-Bangkok Railway is 624 km.

**Table 5-2. The Main International Railway Connecting Yunnan Province to Foreign Countries**

Name	Total Mileage (km)	New Railway	Yunnan Province		The time of starting (Year)	Oversea (km)
			(km)	Investment (billion dollars)		
Kuming-Hanoi—Haiphong	815	419	309	12	2005	396
Kunming—Mandalay—Rangoon	1920	470	340	13	2007	130
Kunming—Vientiane—Bangkok	1830	1110	600	23	2011	500

*Resource:* Yunnan Province Railway Development Report, 2007.

## 2. The Transportation Infrastructure with South Asia

China shares border lines with several South Asian countries, but with limited connecting land route capacity. So far, trade between China and South Asia goes mainly by sea lines. Transportation is a bottleneck for economic and social exchanges between China and South Asia.

### 2.1. The Transport Infrastructure Connection between Tibet and South Asia

Tibet shares borders with four countries of India, Myanmar, Nepal, Bhutan and the region of Kashmir. The length of boundary is more than 4,000 km. The history of frontier trade between Tibet and South Asia's surrounding areas is very long and even could dated back to B.C. The trade area is so wide that even reached Persia Region. The main content of trade in that time is the exchange of tea and horses, and the tie connecting Tibet with South Asia started from Sichuan, through Yunnan, Lhasa to India and Nepal. According to the statistic, there are 312 channels from Tibet to South Asia countries, 44 perennial channels, and 268 seasonal channels. Those regions have had lots of traditional markets, ports and border trade points. The geographical position of Tibet determines that Tibet is the important region for trade between Southwest China and South Asia countries.

Qinghai-Tibet Railway which came into operation in July, 2006, is the first railway in the highland. It provides a major access to South Asia countries, such as India, Nepal etc. In order to improve the location advantage, The Tibet Autonomous Administration government has made great efforts to improve the facility and environment for connectivity with South Asia. The government is planning to extend the Qinghai-Tibet Railway south to Shigatse, passing Yadong the borderland, finally connecting India railway network. In order to construct China-South Asia overland corridor, the railway would become one of the main arteries connecting China to South Asia countries, and further crossing Indian Ocean to the world.

The location advantage of Tibet has gradually been marked. Qinghai-Tibet Railway provides strong support for Tibet to enlarge the border trade with Nepal and India, which could help Tibet to become a new frontier of economic communication with South Asia. Qinghai-Tibet Railway and the planned extension of the line could facilitate China-South Asia regional cooperation. China and India has reopened Natu La to connect Yadong County (Shigatse prefecture, Tibet) and Sikkim. This revives the border trade path which was closed for 44 years. Natu La lies 4545 meters above sea-level, located in 460 km southwest of Lhasa and is 52 km away from Yadong port, Tibet, 54 km away from Gangtok, the capital of Sikkim, 550 km away from Calcutta harbor of India. If Chinese products transit from Lhasa, through Yadong, Natu La to Calcutta etc. harbors of India, the distance could be shortened by 8000 km, and it would greatly lower the cost of transportation.

Nepal hopes to get benefit from the extension of Qinghai-Tibet Railway. There are two main routes for Tibetan foreign trade, one is an ancient path passing through Nepal to India. In 2009, large scale modification works on China-Nepal highway was already completed, which helps to realize the dream “arriving within one day” from Lhasa to Zhangmu Port. Zhangmu Port is the biggest border trade path in Tibet to South Asia. If Qinghai-Tibet Railway extension could put into operation, the time for land transportation between Chinese mainland and Nepal would be greatly reduced. Nepal government hopes that Qinghai-Tibet railway could extension could

also lead to connection to India, Bangladesh etc. Thus, Nepal could become a major trade corridor for China and India.

Qinghai-Tibet railway stimulates Indian active response and seems to give India some inspiration by declaring to start frontier railway and highway construction projects. The Indian government announced that they would plan to have 27 highway projects along India-China border region. Indian government also intends to build “Himalaya Railway”, from the foot of Himalaya mountains to Kashmir valley, with the total length of 900 km. The obstacle of India’s development is infrastructure and has put infrastructure development as one of its modernization projects.

## **2.2. Transportation Infrastructure Connection between Xinjiang and South Asia**

The highway between Xinjiang and Pakistan is the only channel for both China and Pakistan. It is about 2760 km from Urumqi to Islamabad, the capital of Pakistan. Khunjerab land-carriage pass (highway) located in Tajik autonomous county in Tashkurghan which in the Pamir, the southwest of Kashi prefecture, Xinjiang. The port is 4500 meter above sea level. If you enter China through Khunjerab in Pakistan-Xinjiang highway, then it will take 130 km to Tashkurghan, 420 km to Kashgar, and 1890 km to Urumqi; if out of China through Khunjerab, it will take 125 km to Sost, Pakistan, 270 km to Gilgit, the capital of northern area of Pakistan, about 870 km to Islamabad, the capital of Pakistan. Khunjerab pass connects with Sost pass, which is in the north of Pakistan. Thanks to Khunjerab pass’s high altitude, bad weather and lack of oxygen, institution of port’s check and examination moved to Tashkent in 1993. China and Pakistan government came to an agreement that Khunjerab pass could be the open port in September, 1981. On August 27, 1982, Khunjerab pass could be open to both Chinese and Pakistani. On May 1st, 1986, it could be open to third country nationals.

### **2.3. Transportation Infrastructure Connection of Yunnan Province and South Asia**

Due to the Himalayas, the traffic between China and South Asia is inconvenient. It should take an indirect route by Yunnan Province, Myanmar into South Asia. In Qin and Han dynasty, two thousand years ago, China built the road called “Five feet Road” starting from Chengdu, through Yibin, to Zhaotong and Qujing, the northeast of Yunnan Province. Then the road extend to the west, pass through the north of Myanmar, India, Central Asia and Arab area, and shaped the famous business road - the Silk Road, it directly enhance the connection between China’s mainland and Southeast Asia, South Asia, and become the convenient land corridor. As the existence of Silk Road, Yunnan Province play an important role in the material exchange of Central Plain and foreign countries, and become the bridge and tie between China and Southeast Asia, South Asia.

In the 1930s, Yunnan-Myanmar highway was built to revolt against Japanese aggression. In the end of the Second World War, “Stillwell Road” was built. It starts from Ledo, the northeast of India, one branch passes Myitkyina (Myanmar) to Wangting (China), and the other passes Kambaiti (Myanmar) to Tengchong (Yunnan Province, China), both connecting Yunnan-Myanmar highway to the highway and railway of India. However, those highways are abandoned and lose the ability of transportation.

## **3. The Future Plan of International Corridors to South Asia**

Economic relations have become increasingly close especially since the 21<sup>st</sup> Century. China becomes an observer of SARRC. China and Pakistan signed a FTA, and China has become the largest trade market for India. Thus, there is an emerging

demand for improving the transportation infrastructure based on mutual benefits.

### **3.1. The new Initiative**

Yunnan Province is the closest region of China to India Ocean, and the most convenient way for Southwest China to India Ocean is to start from Yunnan, through Myanmar to the sea at Rangoon Port. Recently, the government of Yunnan Province adopted a grand strategy of “building international corridor linking Southeast Asia and South Asia”. The planned international corridor consists of four transport corridors, including Kunming-Vietnam, Kunming-Laos-Thailand, Kunming-Myanmar-India Ocean, and Kunming-Myanmar-South Asia.

The Kunming-Myanmar-India Ocean corridor is based on the highway that should be built with high priority. This corridor used to play an important role in history. The most part of this highway is in Myanmar. The planned length of Kunming-Rangoon Highway is 1,899 km, and 732 km in Yunnan Province. The 500 km long Yunnan section has been reconstructed into expressway, and the rest of it is in progress. The length of Muse-Mandalay section in Myanmar is 460 km (equal to the third or fourth level standard of highway in China), and Mandalay-Rangoon is 707 km (equal to the second or third level standard of highway in China). This road was opened in 1930s. The quality of the section in Myanmar is very low. It still could not be upgraded recently due to Myanmar’s economic difficulty.

Yunnan-Myanmar-India corridor is the old Stillwell Road in history. The length of the planned Kunming-Ledo (India) is 1220 km. The 698 km section in Yunnan Province was reconstructed to high class highway. The section starting from Houqiao port in China to Myanmar border is 105 km with high class quality already. The length of Myitkyina –Patkai in Myanmar section is 372 km and the length of Patkai-Ledo (India) section is 45 km. They were rebuilt to third-class level funded by Indian government. When accessing Ledo, India, it could connect with Asia highway network, which could lead to Bengal, Pakistan. However, for most parts in Myanmar, they are in a very poor condition and need large amount of investment.

What is more, the highway would pass Arunachal Pradesh, for which China and India have disputed boundary problem.

Bangladesh government is planning to construct transnational transportation connecting three countries, China, Bangladesh and Myanmar's highways and railways. Myanmar government is also planning to build the highway between Myanmar and Bangladesh, which would extend to China in order to realize the interconnection of three countries' highways. China is very much interested on those plans. The highway between Myanmar and Bangladesh was completed in 2008, but it is still in low class and needs to be upgraded in order to meet the demand of increasing economic exchanges. Until now both China and Myanmar, Bangladesh and Myanmar have not made the agreement for improving and integrating the network yet.

### **3.2. The Trans-Asia Railway to South Asia**

China-Myanmar international railway corridor reaching India Ocean would be finished soon. The international corridor connecting Myanmar railway network is Bangkok Bantatongna (Thailand) -Ye City -Rangoon (Myanmar)-Lashiho-Ruili -Kunming (China), which is to implement "Trans-Asia railway " proposed by ASEAN. The newly built Dali-Ruili highway in Yunnan Province was under construction with length of 340 km. In the section of Lashiho-Ruili, the length of oversea part to Lashiho is 132 km, connecting with Myanmar railway network and directly arriving at Rangoon, Myanmar. At present, Myanmar's railway network is out-of-date and backward, transport volume is small, speed is low and the price is high. It needs total reconstruction.

To build international railway corridor connecting Myanmar and South Asia is also under consideration. This corridor connects the north region of Myanmar to India and Bangladesh railway network, further to West Asia, Europe and Africa, which can be a third Euroasia Land Bridge. For Yunnan, the line will start from Baoshan, through Tengchong, Houqiao, Myitckyina (Myanmar) and to Ledo (India). The length of newly built Baoshan-Tengchong-Houqiao railway is about 120 km and

is planned to be completed during the *Twelfth Five-Year Plan*. Up to now, this railway is only a plan. Myanmar doesn't have the ability to build it, and India also seems not to be active for various reasons.

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