

# Research on the Routes of the Chinese Section of the Trans-Asian Railway

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**ABSTRACT.** *This paper discusses the railway routes in the Southwest China which connect the Trans-Asian Railway. Five Trans-Asian Railway border stations, which are Pingxiang, Hekou (centre line), Hekou (east line), Mohan and Ruili, are proposed to be constructed. It also discusses the construction of the Chinese section of the Trans-Asian Railway by the east route, centre route and west route.*

**KEYWORDS:** *Railway route; Trans-Asian railway*

## 1. Introduction

In 2006, 18 Asian countries signed an Intergovernmental Agreement on building the Trans-Asian railway network in South Korea. According to the agreement, the Trans-Asian Railway includes three plans. The east route plan originates from Singapore via Kuala Lumpur, Bangkok, Phnom Penh, Ho Chi Minh City, Hanoi to Kunming China; the middle route plan originates from Singapore via Kuala Lumpur, Bangkok, Vientiane, Shang Yong, Xiangyun (Dali) to Kunming China; the west route originates from Singapore to Kuala Lumpur, Bangkok, Yangon, Ruili to Kunming China [1]. As being one of the world's largest trading countries, China can connect Southeast and South Asia through the construction of the Trans-Asian Railway. It will connect the existing Chinese railway network to explore the Southeast Asian market, provide new export channels for Chinese manufacturers, and be in line with the Chinese “Belt and Road” strategy.

The “Belt and Road” strategy is based on the interconnection of transportation infrastructure, with the goal of adapting to the intra-regional trade demand of the “21st Century Maritime Silk Road” and building China into an international transportation hub serving the world. Therefore, the promotion of the Trans-Asian Railway, especially the construction of the Chinese section of the Trans-Asian Railway is in line with the development of the “Belt and Road” initiative.

## **2. The construction of Trans-Asian Railway border stations**

The Nanning-Kunming Railway uses the Guangtong-Kunming Double Line, the Guangtong-Dali Double Line, the recently constructed Dali-Baoshan and the Baoshan-Ruili section to connect the Myanmar border[2]. It will connect the South China from Guangxi Province and Yunnan Province to the China-Myanmar border, and connect the East China from Shanghai, Chongqing and Guizhou to the China-Myanmar border, after the entire domestic section of the Trans-Asian Railway's western route is completed. And it forms of the domestic Shanghai-Kunming, Chengdu-Kunming, Nanning-Kunming and Neimenggu-Kunming, as well as the cross-border China-Vietnam, China-Laos and China-Myanmar railway transportation networks. According to China's existing railway network, the Trans-Asian railway is mainly in the following border stations:

(1) Pingxiang station, Guangxi Province. The railway connects from Nanning to Pingxiang to Hanoi, Vietnam, and the railway from Hanoi to Ho Chi Minh. The whole line has already been in operation.

(2) Hekou station, Yunnan Province. The railway reaches the Hekou station through the railway from Kunming to Hekou, and connects the Vietnamese railway network from the Vietnam Lao Cai to the Hanoi railway at the Hekou station. The whole route has already been in operation.

(3) Hekou station, Yunnan Province (East Trans-Asian Railway). The railway reaches the Hekou station via the Kunming-Yuxi-Hekou section of the east line of the Trans-Asian Railway. This line has not been completed.

(4) Mohan station, Yunnan Province (Pan-Asia Railway Central Line). The railway reaches the Mohan station via the Kunming-Yuxi-Puer-Jinghong-Mohan section of the Trans-Asian Railway Central Line. The Mohan station is a national first-level border station, which is connected to the planned Laos railway section of the Trans-Asian Railway Central Line. This line has not been completed.

(5) Ruili station, Yunnan Province (Trans-Asian railway west line). The railway reaches the Ruili station through the Kunming-Xiangyun-Dali-Baoshan-Ruili section of the Trans-Asian railway west line. It is a national first-level border station, which connects the Myanmar section of the planned Trans-Asian railway west line to Muse, Myanmar. The line has not been completed.

## **3. The construction of the Chinese section of the Trans-Asian Railway**

(1) The Chinese section of the Trans-Asian Railway East Line is composed of the Kunming-Yuxi Line, Yuxi-meng Line, and Meng-he Line. Kunming-Yuxi Line and Meng-he Line is in construction. Kunming-Yuxi Railway: it has a total length of 49.3 kilometers and a design speed of 200 kilometers per hour for the electrified railway double line [3]. Menghe Railway: it has a total length of 141 kilometers and a speed target of 120 kilometers per hour [4].

(2) The domestic section of the Trans-Asian Railway west line is composed of the Guangzhou-Kunming Double Line, the Guangzhou-Dali Line and the Dali-Ruili Line.

(3) Guangzhou-Kunming Double Line: the 106.3 kilometer railway is connected to the Guangtong-Dali line, Dali-Lijiang line, and Dali-Ruili line. And it is a part of the western line of the Trans-Asian Railway. The project was officially in operation in December 2013 [5].

(4) Guangtong-Dali railway expansion and reconstruction project. After the railway is completed, the train transportation speed from Guangtong to Dali will be greatly increased, providing a fast and convenient railway transportation channel from Kunming to Dali and Kunming to Lijiang.

(5) Darui Railway: it will connect the Kunming to Dali Railway that has already been built, starting from the destination Dali Station, via Yangbi, Yongping, Baoshan, Luxi and other stations in western Yunnan Province. It is through the Gaoligong Mountain, Yangbi River, Yingjiang River, Lancang River and Nujiang River. It has a total length of about 338 kilometers. The total length of the bridge and tunnel is 258.027 kilometers [6].

#### **4. Conclusions**

The construction of the Chinese Section of the Trans-Asian Railway is in line with a national development direction of the China-ASEAN Free Trade Area. It benefits the transformation and upgrading of the economy of Southern China. It is to achieve trade facilitation, reduce logistics costs and maintain China's strength in international trade.

On the other hand, the research on the route of Chinese Section railway connecting the Trans-Asian Railway can not only complement each other's strengths in industry, but also benefit China-Southeast Asia trade and mutual economic and trade. In addition, it involves oil resources, food supply, and breaking the sea blockade in national strategic level.

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