



Webinar

Brief 63:2021



# Chinese Railway Sector:

Setting the Context for ML-1 and the  
Overall Pakistan Railway Sector

Pakistan Institute of  
Development Economics

PIDEIslamabad

PIDEpk

PIDE Official

pide.org.pk





PAKISTAN INSTITUTE  
OF DEVELOPMENT  
ECONOMICS

## Webinar Series on **Pakistan Railways** **4/8**



reenergia

# **Chinese Railways Sector - Setting the context for ML-1 and the overall Pakistan Railways Sector**

**Live on Zoom**

**Monday  
19<sup>th</sup> July, 2021  
06:00 PM (PST)**



**Sun Yangjun**

Director General, China Railway Group Ltd



**Zhenhua Chen**

Assistant Professor, The Ohio State University



**Richard Bullock**

Transport Analyst and Investment Planner



**Hassan Daud Butt**

CEO, KP-SEZA, CEO, Khyber Pakhtunkhwa  
Provincial Board of Investment & Trade (KP-BOIT)

**JOIN WEBINAR**

<https://bit.ly/2Pwskh3>

**Meeting ID: 986 3023 1695**

**Passcode: 381153**

**Moderator**

Nadeem ul Haque  
VC, PIDE

**Moderator**

Amer Zafar Durrani  
President, Reenergiz



PIDE Islamabad



PIDEpk



PIDEpk



PIDE Official



PIDE Islamabad

## **Introduction**

The first two webinars of the PIDE-RE webinar series on Pakistan Railways (PR) have historically reviewed PR from pre-partition times till now. The third webinar discussed the current and international practices in Track Access Regime.

This webinar intends to discuss the evolution of the Chinese railway's sector, different milestones achieved, its institutional arrangements, the regulatory framework, the financing mechanism, the policy design, etc., and how China stands out in comparison with other developed countries. This webinar is intending to show how China did things better and how it can be possible for Pakistan to learn from it.

China's rail transport volume is one of the world's largest, having 6 % of the world's operating railways, and carrying 25 % of the world's total railway workload. China's railway network has been growing steadily in recent years, making the country the third-largest railway operator in the world. In 2020, a Covid-hit year, the China railway still transferred 2,160 million passengers. In the same year, the country's railway business mileage increased by 20.9% and the high-speed rail increased from 198,000 kilometers to 379,000 kilometers. In 2020, the overall freight volume on trains reached 3.58 billion tons, 0.14 billion tons more than that in 2019. In terms of efficiency, China is in 8<sup>th</sup> position whereas Japan is in 1<sup>st</sup> position.



## Key Messages

### Richard Bullock

- The First Railway lines were built in 1870 in Shanghai and the Emperors didn't like them. Therefore, the first line was reconstructed in 1900. Since then, it has been under construction and was broken in the 2<sup>nd</sup> World War.
- In 1949, China had 22000 KM of track poorly maintained which was damaged due to War. Thousands of kilometers were double-tracked and nothing was electrified. With the help of labor, they built amazing lines with the equipment they had.
- The Nanjing Railway Bridge, which the Russians were building, fell out with the Chinese. Then the Chinese designed it and completed it which was an amazing achievement at that time.
- In 1990, railway development was started in China under Deng Xiaoping's reforms. At that stage, the ministry of railway controlled everything such as railway construction, railway operation, railway manufacturing and needed 3.4 million staff for the maintenance of 58000 KM of the track. At that time billions of passengers and 1.5 billion tons of freight were carried out.
- In 1991, China introduced the first comprehensive and sector-specific legal framework for railways in China, and in 1995, steam was phased out.
- The railway didn't make an enormous amount of progress in terms of traffic during the 1990s, but things started changing in the early 2000s and a big catalyst was the medium and long-term development plan. It was the first sector plan in China to go beyond the five-year plan.
- The Long-term plan has several features, one of them was separate tracks for passengers and this led to the first high-speed trains in 2008. Then in 2012, China's Railways was established or SOE that reports directly to the State council.
- In 2019, it was 140,000 km of track, 3.3 billion passengers, 2.2 billion were on the high-speed train as 60% and there are 4 billion tons of freight each going 700 KM.
- In terms of institutional arrangements, China has got 18 regional administrations, so these are a bit like the zonal railways in India and they are more powerful than zonal railways, but they are still under the control of Beijing.
- These 18 regional administrations are separate bodies; they have their balance of sheets, panels, general managers, their target, and so on. In China, there is a railway board, but they do not have absolute power; it is called the centralized model of administration.
- Key things about China's railway progress include; (1) commitment to long-term strategy and planning (2) embracing modern technologies in construction, maintenance, and operations (3) China also has strong research institutes for railways.

### Sun Yangjun

- China railway has recently provided services of about 5000 km in which 2500 km is high speed. This is the world's 2nd largest railway track. Passenger volume is 2.167 billion people and freight volume is 3.581 billion tons. China's work on a long-term plan by 2035 railway's total length will be 200,000 km and 70,000 in terms of the high-speed road.
- China started construction of railways in 1881, but China worked on railways on their own from 1909 to till present. China's railways have experienced five periods of development of which 1997 and 2007 are excellent periods of railway up-gradation. 2008 to onward is the higher-speed railroad period in China.
- The relationship between railway freight volume and GDP growth shows that the trajectory of railway freight volume coincides with GDP growth. China's economy is growing very fast just because China is highly dependent on the development of the railway system.
- China compares with other countries like USA, JAPAN, and the UK for development of the railroad, their government gives subsidies to administration to run the railway but in China sets the one state-owned corporation who just does not work on administration also a keen focus on railway development
- Most of the time they are highly in debt but the government gives them a subsidy on investment. Other countries have one or two passenger companies and some of them have networking or freight companies, but China railway has one state-owned corporation which is separated from the Government. China mostly focused on the railway as compared to the road because it increases their economic growth..

- In decision making China and Pakistan have so many differences: Pakistan takes time for PC-1 and ML-1 almost four to five years but in China, two to three years take for feasibility and bidding process. Most of the time China takes a short time to make decisions like for PC-1 it takes one week or one month.
- All over the world, the country's main player is the government who finances railways. But in China, private and other organizations play a role in financing also provisional and local government combined work on land use for railways with proper channels.
- China's contractors mostly focused on early completion, bringing early benefit. Construction takes 3 to 6 years, which is much faster than in other countries.
- China gives full attention to safety measures even if they take risks for safety. China developed its technical standards which are set by the government. Even every developed country sets its standards, but Pakistan follows British standards.
- ML-1 gives Pakistan the potential to boost up economic growth. It is an efficient transportations system for long-distance passenger or freight transportation. It gives job opportunities, promotes the modernization of railways, and reduces the accident ratio.

### **Zhenhua Chen**

- China has been kneeling, focusing on planning and development of railway systems in such a way that the enhancement in the railway system brings out the wider positive economic impact.
- In 2015, China introduced high-speed travel technology in the country keeping the demand and supply of travel in the country.
- China has not just focused on enhancing services for passengers or freight, but it has done research and development on how enhancement through advanced technology can bring changes in GDP, income, and employment.
- One of the key elements is the use of land for the railways. How wide it spread to stimulate urban growth. This has been done through the principles of supply and demand to link rural areas to urban and suburbs.

### **Hassan Daud Butt**

- China's Belt and Road Initiative (BRI) is a strategy initiated by the People's Republic of China that seeks to connect Asia with Africa and Europe via land and maritime networks to improve regional integration, increasing trade, and stimulating economic growth.
- In the BRI project, Islamabad lies between three engines of growth in Asia.
- Scope of the project to upgrade and double the ML-1 by improvement and advance level construction of tracks. The second one is the establishment of the Dry Port which is a trans-shipment for the northern area. The last one is to upgrade the Walton training center.
- All these improvements lead to an increase in speed, capacity, freight volume, and lower the time from city to city.
- These establishments expand the business/trade to make it more competitive in a cheaper way under the environmental concerns. There are 20,000 direct and 150,000 indirect job opportunities for everyone.
- There are different Execution Packages with different costs and duration:  
Package-1 Cost: US\$ 2705 million Duration: 5year. Nawabshah- Rohri, Multan- Lahore-LalaMusa, Kaluwal-Pindora and Walton Academy.  
Package-2 Cost: US\$ 2675 million Duration: 7 years. Kamari- Hyderabad- Multan.  
Package-3 Cost: US\$ 1376 million Duration: 4 Year. LalaMusa- Rawalpindi-Peshawar- Dry Port.
- To achieve the goal of ML-1 there is a need for private sector involvement (external and internal coordination) and modern business development units.

### Questions & Answers

*In Pakistan, the railway is at a negative cost. If we shut it down then there is no difference, or do we demolish the old system and create a new one from the first footstep?*

- Railway infrastructures rebuild with the present structure, the ministry of railway, improve the acts and policy framework under the supervision and commercialization of the railway. It takes time for substantial changes for ML-1 (*Richard Bullock*).
- Need a separate government under the railway company that has been done by other countries already. Privatizing is the real solution (*Sun Yangjun*).
- Institutional reforms and make sure about appropriate approaches for railways. Efficient leadership and support from the government to achieve the goal (*Zhenhua Chen*).
- First, finalize the ML-1, it will be done with the internal and external private sectors coordination with efficient management (*Hassan Daud Butt*).



**Prepared by**  
*Danish Bhutto*  
MPhil Scholar, PIDE

**Edited by**  
*Hafsa Hina*

**Design by**  
*Afzal Balti*

🌐 [www.pide.org.pk](http://www.pide.org.pk)  
✉ [policy@pide.org.pk](mailto:policy@pide.org.pk)  
☎ 92-51-924 8051  
📠 92-51-942 8065