

Rail & Road Revolution in Premier Islamic Bahawalpur State: Bridged the Indus Valley State Railway to the Punjab Railway in British India

Dr. Mian Saeed Ahmad

Assistant Professor, Department of Pakistan Studies, The Islamia University of Bahawalpur (IUB)

Imran Ali

Doctoral Candidate, The Islamia University of Bahawalpur (IUB)

Farhat Naz Qureshi

Doctoral Candidate, The Islamia University of Bahawalpur (IUB)

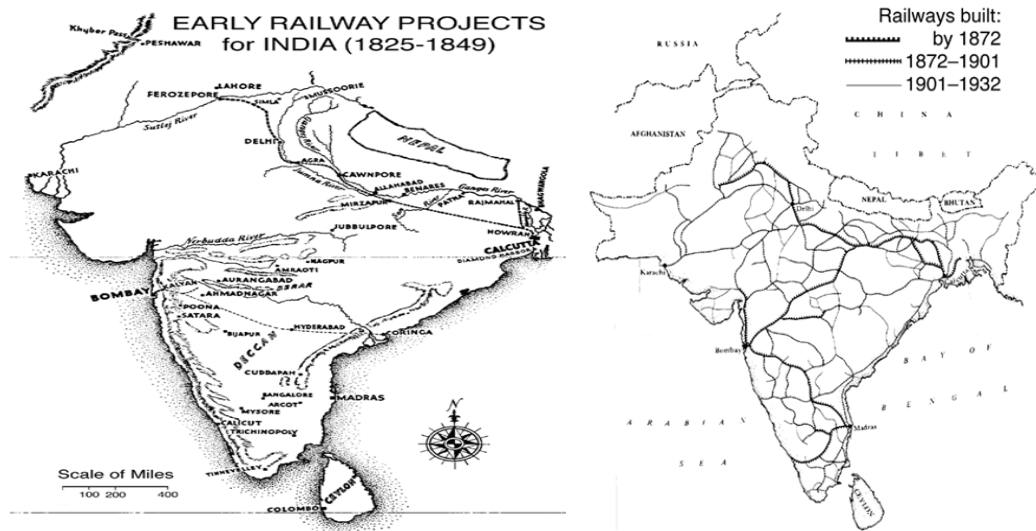
Abstract

The aim of study to highlight the importance of transportation in North-West part of British India. In order to cater the Defense, Logistic & Strategic Services; East India Company EIC (1612-1857) devised a mega project in Great Indian Peninsula Railway (GIPR). The State BWP; possess Princely status in British India from 1748-1947& it was largest state in top five in Subcontinent. Geographically; BWP State located in Rajasthan Painesville among 18 other Non-Muslim States. It situated in North-West part of British India. So it was mandatory to connect between Province Sind, State BWP & Provinces of Punjab. State BWP ruled by twelve Nawabs, who contributed whole heartedly for development & welfare of the Public. Post 1857; a new era begins in State. Nawab adopted modern method of communication & provided the services in Subcontinent. In this regard; State BWP established multiple Railway Lines & Stations. Therefore; British Officers and Engineers were posted in the State. In 1878; a Gigantic Bridge (Empress Bridge) on Sutlej River completed which connected the all-region by Railway Revolution. I have special focus on the North-West part of Railway Communication & highlight the Value & importance of Empress Bridge on Sutlej River.

Keywords: Development of Road Rail Infrastructure & Welfare State BWP



Introduction & Background: The Means of Communication is very significant for any country or Region. East India Company (EIC) stepped in India (1612-1857) as a mercantile company but later EIC control over the entire Subcontinent. In 1804; Railway Locomotive invented by Richard Trevithick, the following decade improved the Steam Engine. Later the massive demand of cargo & passenger it has change the means of transportation. In Europe, the Railway Companies operating their business very successfully. In 1832; East India Company purposes the modern infrastructure of Railway in India, eventually the history of railway begins in Subcontinent. The EIC introduced, **“East Indian Railway”** (EIR) launched Railway System in East India South & North India, a Company such as the Great Indian Peninsula Railway, (GIPR) South Indian Railway, Bombay, Baroda & Central India Railway and the North-Western Railway operated in other parts of India. The GIPR established on 1st, June 1845 in London with four million GBP Capital.¹ The Great Indian Peninsula Railway Company incorporated on August 01, 1849 in India. In mid-19th century; EIC introduced Road, Rail & Telegraph for modern means communication. The Governor General of India Lord Delhaize gave approval of the Scinde Railway & enlisted as Railway Company in July 1855. The Scinde Railway started work in December 1855. Mr. T.A. Yarrow & William Author Breton completed its first survey for Northern India & submitted report on June 15, 1857.²

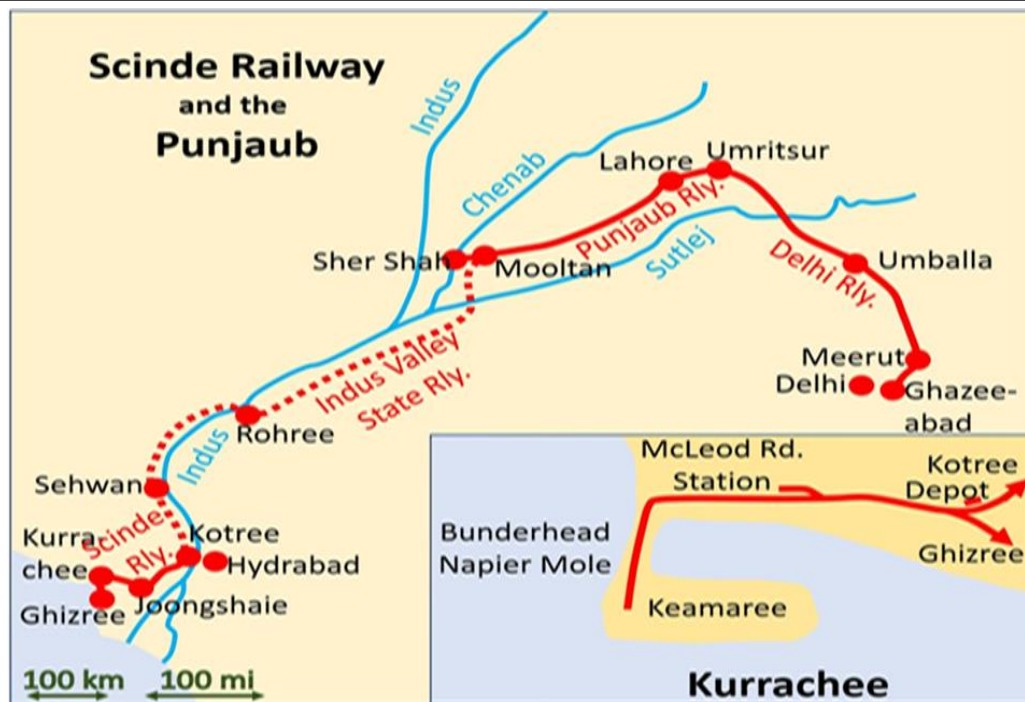


Time Line of Railway Companies in Sindh & Punjab British India; 1849-86.

1. Great Indian Peninsula Railway (GIPR) Company incorporated on August 01, 1849.
2. Scinde Railway (SR) operated in Sind Karachi Port during the British Raj--1855-85.
3. Punjab Railway (PR) operated during the British Raj in Punjab Province---1857-85.
4. Multan—Lahore ----Amritsar Section Survey by Scinde & Punjab Railways----1859.
5. Multan – Lahore Track 177 miles 285 Km Completed--1865.
6. Lahore – Amritsar Track 32 miles 51 Km completed--1867.
7. Delhi Railway Companies. As per the Railway Act of India--1869.
8. The Scinde, Punjab, Delhi Railway (SP&DR) formed on 1870-1885 formed 1870.
9. Punjab Northern State Railway Established in British India 1876--1886.
10. All Unites merges in North –Western State Railway in 1886 - 1947.³

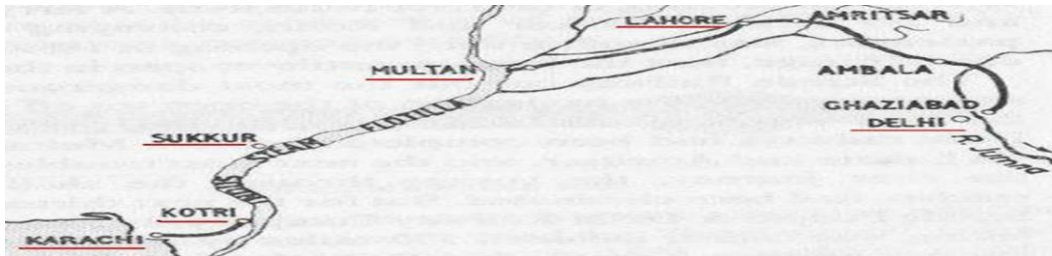
Initially; trains were operated for cargo services. First Train commenced from Red-Hills to Chintadripet Bridge in Madras on 1836-37. GIPR was initially proposed for a length of (2,100 km) to connect Bombay with the interior of the Indian Peninsula to the major City & Ports. It meant to increase the export of cotton, silk, opium, sugar and spices & others products & Raw-Material from India. On April 16, 1853; first passenger train in British India operated by GIPR between Bori Bunder (Mumbai) to Thane. Later, GIPR extended the Railway Tracks in other parts of Central India. In 1855: Scinde Railway (SR) operated in Sindh during the British Raj 1855-85.⁴The Development of a Railway Infrastructure in Colonial India started in 1855 with three companies, the Scinde, Punjab & Delhi Railways. Unlike the tracks extending from Bombay and Calcutta which had commercial worth, the ones in the northwest were for strategic purposes. Over three decades, the Infrastructure extends up from Karachi, Hyderabad, Sukkur, Bahawalpur, Multan and Lahore to Delhi. A Contract of 174-km Railway Line to be constructed between Karachi & Kotri; work commenced & inaugurated by Sir Bartle Ferrier (Commissioner of Karachi) on April 1858. The project completed after three years on May 13, 1861; Railway Service opened for

public. It was the first railway line for public of North-West part of Colonial India. Punjab Railway (PR) founded on 1857-85. **Multan-Lahore-Amritsar Section**, contract awarded to Scinde & Punjab Railways in 1859.⁵ Both companies have joint venture & completed mega project on 1861. From Multan to Kotri there was no Road & Rail Link so it was dare for Defense & Economic needs. The British Govt. proposed a 680Km Railway including Gigantic Bridges on River Sutlej & Indus. Actually, India comprises with multiples Geographical features, Vast Desert, Huge Rives, Deltas and Planes Areas & Mountains. To connect the Geographical Region; British India faced these obstacles & decided to build Historical Bridges, which was basic challenge for Railway Infrastructure. The first bridge constructed between 1856-62 on Saone River in British India. It was first ever mega Railway Bridge. The survey being conducted on February 17, 1851 by Gorge Turnbull, Chief Engineer of East India Railway. The Saone Bridge brought revolution in Railway Industry. It was premier bridge in South & Central India. The Bridge has significant features. It holds 1610 meter in length & 5280 feet; almost one kilo-meter long.⁶ This success open doors for new challenges, later multiple fantastic bridges were developed in various part of British India. A list of Glorious Bridges is given below, Sutlej Bridge (Bahawalpur State) is also enlisted. Princely State Bahawalpur (River Sutlej) possesses a unique history in Subcontinent. The State BWP possesses the princely status from 1748-1947. The State base on Agro-Economy & this part of was rather remote area of the India. There was no Road & Rail connection with Central India. There is no link between Karachi to Lahore. It was first ever Rail Connection in North-Western British India. Sutlej Bridges connect to Sindh Indus Valley State Railway to Punjab Province (Punjab Railway).



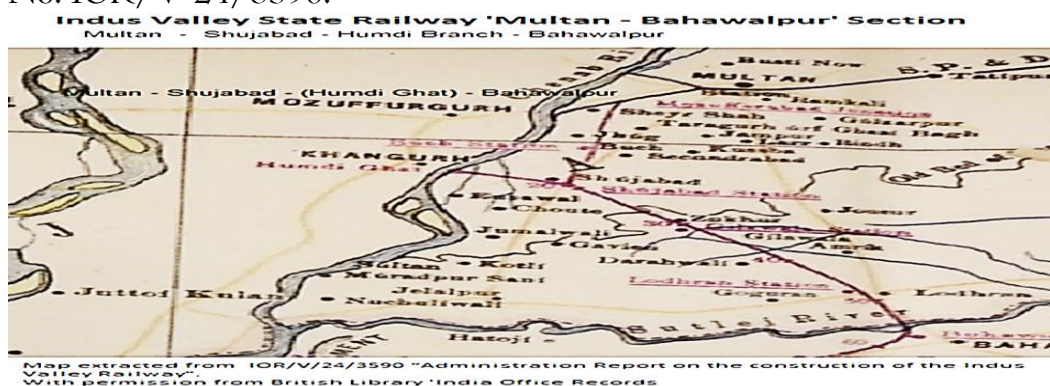
Up till 1870; British Raj enhanced the Railway Infrastructure in major cities of the Central India but North-West part was a bit ignored due to the less population. British Government proposed survey for the North-West Region on 1865; Sutlej River Bridge & Railway Line works started in 1872 by accomplished multiple Surveys of British Engineers.⁷ Finally; Indus Valley State Railway (IVSR) awarded contract in 1872 & on June 07, 1878; Empress Bridge Bahawalpur Inaugurated by Director General; Public Works Department (PWD); Col. Sir Andrew Clark. PWD paid a vital role in history of British Raj; the PWD was Central & Major Department of British India. PWD responsible for Irrigation, Railway, Civil Engineering, Road and Building & Town Planning. Military Installation was core of the job. PWD established on 1848, further it legitimized on 1854.⁸ Initially, there were three major branches combined in (Civil, Railway & Military in Public Works Department, later in 1866-68, all Units split due to the importance of each department. PWD is one of the oldest departments of British India; the Royal Civil Engineers & Architects of UK were inducted & trained here. So British Engineers paid a vital role for British Imperialism. The Map of Northern-Western part of India & Red Line highlighted the missing Railway line. It was mega project to Bridge the North-West to The Punjab Province. The Project having commercial & Strategic significant from Multan to Kotri

680 Km railway line was about to be constructed. The Government of India approved the project & commenced in 1872, Mr. Alexandra Meadow Randal (1829-1918) designed & Mr. William St. John Galway, (1833-91) as Chief Engineer constructed the Sutlej River Bridge. Earlier he successfully completed the Jhelum River Bridge (Alexandra 1876). The Sutlej Bridge also known as Adam Wahan Bridge is the only rail bridge over Sutlej River in British India. Before Railway Companies in India, steam engine boats were operated, the first commercial boat system started in Indus River from Karachi to Kotri on 1835.⁹



Later in 1856; Oriental Inland Steam Company established & provides the cargo services; three years later on 1859 the Indus Flotilla established & operates for same purpose, it too worked from Karachi to Kotri.¹⁰ The Indus Flotilla company extended its network up to Sukkur and covers the entire Indus Delta & reached the Multan at River Chenab. The Cargo service took one month to voyage. It was major transport service in British India; it also provides the Postal service for British Raj. There were multiple terminals for cargos, where the heavy equipment transported. **Hamdi Ghat** was a terminal at Multan on Chenab River. It plays a vital role in development of region & Sutlej Bridge.¹¹ A Meter Gauge (MG) line was installed from Hamdi Ghat to Adam Wahan Railway Station. This track was 100-km long. A red line in map shows the track on official record of the British Govt. It was first major terminal point, where Indus Valley Railway Multan Bahawalpur Section carries out their operations. The second terminal established at Uoch Ghat (Now Uch Sharif) in the official record of British Govt. again shows a Redline from Uoch Ghat to Channi Goat Railway Station. A 22- km Meter-Gauge (MG) Track established for Sutlej Bridge Operation. This terminal not only provides facility for construction of Bridge & for the Railway Track. These lines were called the Tramway. Construction Material was carried out by these channels. Engineers, Official Staff & workers used to the channel for

transition. Figs. Source—all No.1&2- From British Library Report Official No. IOR/V-24/3590.



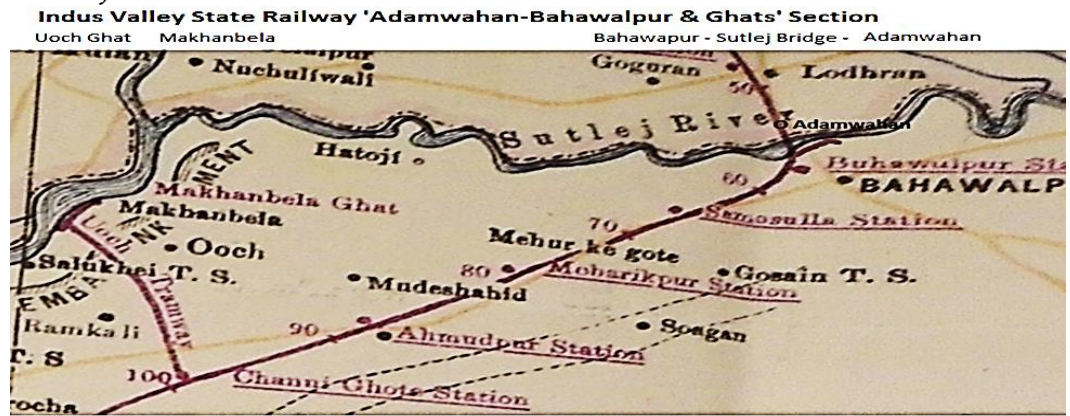
In 1870; the British Raj endorsed the request for acquired the State Land for large interest of British India, so the Nawab of BWP State make the necessary arrangements & gifted the land without any charges. A belt of 200 hundred feet from State Bahawalpur to Rati, which lies 250 km up to the Khairpur State allotted to British Govt. Nawab of BWP; forbade the peasants of State to not cultivate the said land. This belt having the Strategic Importance & Major Cargo line for Goods. The British Raj awarded the local Tender of Supplies to BWP State & labor force would also provide by the State. In this way; a mega project launched in State & 30000/ thousand worker were employed as per need. ¹².To build not only Railway Line but also Railway Station in the Railway Belt, for Stations & Re-Fuel or Coal depot, Rest Houses, Railway Staff Colonies, Market Land was additionally by the Nawab of the State. Twenty Four Railway Station installed in State Land of BWP.

List of Railway Stations; From Bahawal Pur City to last Point of Bahawalpur State.

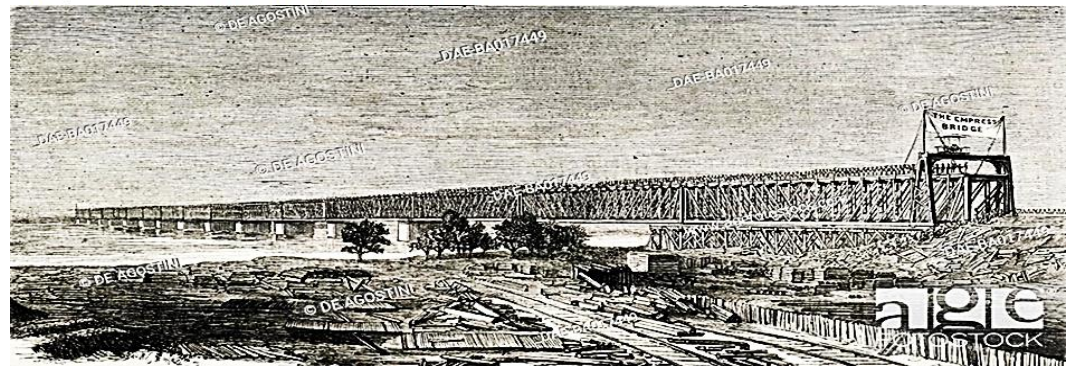
| | | | |
|-------------------------|----------------------|------------------------|-------------------------|
| <i>Samasata. JN.</i> | <i>Channi Goth</i> | <i>Khan Pur JN.</i> | <i>Adam Sahaba</i> |
| <i>Kalanch Wala</i> | <i>Tanwari</i> | <i>Sehjaa</i> | <i>Chandrami</i> |
| <i>Mubarak Pur</i> | <i>Liaqat Pur</i> | <i>Kot Sambaa</i> | <i>Sadiqabad</i> |
| <i>Tibi Ezzat</i> | <i>Maitlla</i> | <i>Wari Azeem Khan</i> | <i>Machi Goth</i> |
| <i>Dera Nawab Sahib</i> | <i>Firozaa</i> | <i>Tarandha</i> | <i>Dulahar</i> |
| <i>Kulaab</i> | <i>Jehtha Bahtha</i> | <i>Rahim Yar Khan</i> | <i>Chak Asmat Ullah</i> |

| | | |
|--|---------------|-------------|
| | <i>Dhandi</i> | <i>Rati</i> |
|--|---------------|-------------|

In different portions; IVSR started work on BWP to Rohri Junction it was total 375 km, 250-km holds the BWP State & rest of 125-km possessed by Khairpur State To lay down the railway track was stated in various parts. IVSR's Engineers worked in very tough condition; despite hot, humid and maximum temperature British make it possible which was looking impossible. Finally on June 1878; the Railway track from Lahore to approaches to the Rohri Junction.



Map extracted from IOR/V/24/3590 "Administration Report on the construction of the Indus Valley Railway". With permission from British Library "India Office Records".



Under Construction original photo of River Sutlej Bridge 1872-1878.



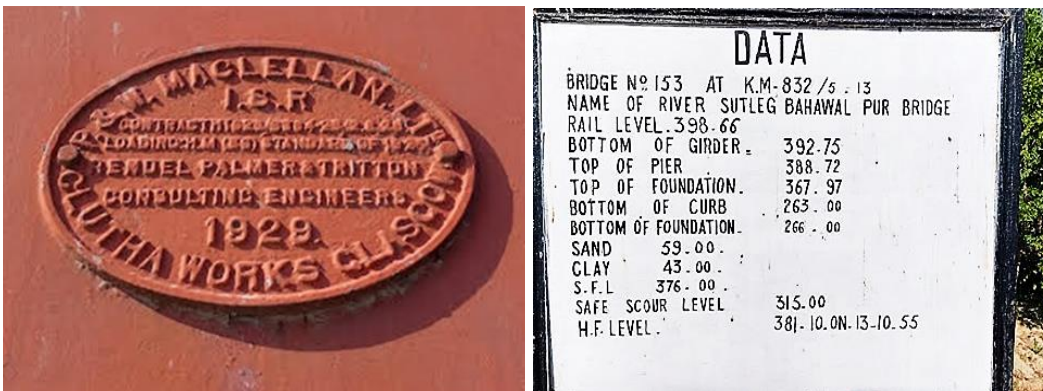
The Empress Railway Bridge, State Bahawalpur on June 7, 1878; On Inaugural Session; Mr. Sir, Clark Andrew; Minister of Public Works. Mr. Middleton Rayne; Chief Engineer of Indus Valley Railway State. Col. Peile, R.E. Director State Railway. Col. Medley & Major L.H. Gray. Assistant Engineer, Hugh. Levin Monk, William. St. John. Galway; Engineer In-Charge, The Sutlej

*Bridge.*¹³

The Nawab of State BWP; Sir Sadiq Khan Abbasi-IV (1861-1899) express loyalty with British Raj & State BWP scheduled the glorious ceremony with the Coronation of The Queen Victoria (1819-1901) in honor named as The Empress Bridge. The Queen Victoria the Queen of the United Kingdom of Great Britain; Proclaimed the Empress of India on May 1, 1876. It was also political move to keep satisfied the British Raj. On March 1878; The Sutlej Bridge was completed & inaugurated on June 07, 1878 & finally started the operation on July 01, 1878.¹⁴



Empress Railway Bridge



Post 1878; IVSR; started construction from Rohri to Kotri Railway Station, this line was 325 km long. The operation starts with a bit hazy, Four Tramway were established for carried out the material. Moreover; a major challenge was waiting for British Engineers that was Sukkur Bridge on River Indus, the homework was completed by IVSR but later finalized by NWR.¹⁵ In meanwhile; the Governor General's council decide to merge all railway

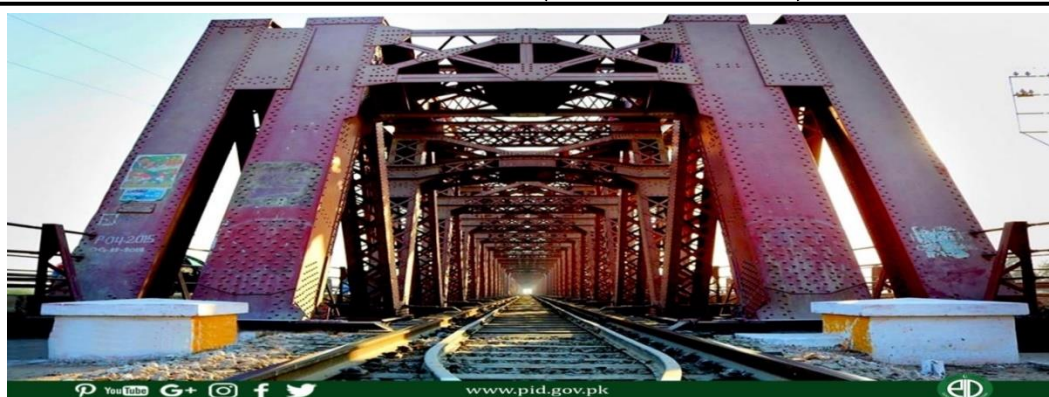
companies so a new era was started on 1886; by founded the North West Railway Zone. Its construction started on 1887 & completed on 1889. It was also a glorious Bridge in British India. It known as Sukkur Bridge & later inaugurated by Governor General of India (1888-94) on March 25, 1889, known as Lord Lansdowne Bridge. (In Pakistan 1962; this bridge is known as Ayub Bridge.)



Mr. Alexandra Meadow Randal again design the bridge, initial survey commenced from 1875-82, five different site were purposed. The bridge is Cantilever Truss, Iron Steel 3300 tons & 800 feet long. Its cost estimates 26.96 million Rs. It was opened for public of 1891.¹⁶

The final destination has yet to be come in next point, to connect the Rohri to Kotri & Karachi, the Final Bridge about to be constructed to connect the Hyderabad Kotri Bridge. This bridge again constructed on River Indus. The Bridge completed on May 25, 1900 & opened for public.

Its length is about 600meter. Kotri Railway Junction was founded on May 13, 1861 but it was not further connected to any more. This milestone was achieved by NWR on 1900 AD.



RAILWAY BRIDGE, KOTRI

It is situated between Kotri and Hyderabad on Indus river in Pakistan. It was opened to traffic on 25 May 1900 and was reconstructed in 1931. It stretches over six spans and the total length of the bridge is 1,948 feet.

List of Bridges in North- West of British India 1871-1900.

| | |
|-----------|---|
| I. 1876 | Ravi Railway Bridge is situated between Sadiq Pura, Lahore and Shahdara Bagh on Ravi River. The construction of Bridge started in 1871 and completed in 1876. |
| II. 1876 | Alexandra Railway Bridge is situated between Wazirabad & Gujraat on Chenab River. Bridge was inaugurated by King Edward VII- in 1876. |
| III. 1878 | Empress Bridge is situated between Bahawalpur & Adam Wahan on Sutlej River. Bridge open on 1878 by Sir Andrew Clark. It is known as the "Adam Wahan Bridge".... |
| IV. 1883 | Attock Bridge is situated between Attock & Khairabad Kund on Indus River. It was opened to traffic on May 1883. It was orginally designed by Sir Guildford Molesworth. |
| V. 1889 | Lansdowne Bridge is built over Indus River, also known Lansdowne Bridge and inaugurated on March 25, 1889. It is the longest single span cantilever bridge of its kind. |
| VI. 1900 | Kotri Bridge is situated between Kotri and Hyderabad on |

| |
|--|
| Indus River. It opertioned on May 24, 1900 & reconstructed in 1931. Bridge is known as "Mehran Railway Bridge".... |
|--|

PWD; built hundreds of mega bridges for Indian Railway in British India, but in North West part only six glorious bridges constructed from 1871-1900. In above chart; the details have been mentioned. These bridges were significant & valuable for all the purposes. Sutlej Bridges was more valuable because it was only vital connection between Province Punjab & Sindh. Through this bridge the railway line access up to the Karachi smoothly. Initially; it was single line but later it was made a double track from Karachi to Lodhraan Railway Station. After the successful IVSR Project; the British Govt. decided to combine all railway companies, a high level meeting headed by Governor General & gave approval to merge all the Railway Companies & constitute a North-Western Railway Zone in British India. It was larger unit & more energetic administration was introduced, which were capable & sets the new record in Railway history. ¹⁷ In 1886; North Western Railway (NWR) was established. Actually; Punjab Northern State Railway was established in British India 1876, it was also merged into the NWR.¹⁸. Further extension in North West part of British India was made by the NWR. Likewise; 1909, 125-km Lodhraan Junction to Raiwind Junction Railway Line was maintained & 257-km branch line constructed from Bahawalpur to Bahawalnagar in 1911. Later in 1928; Bahawalnagar Railway Line constructed to Forts Abbas, it was 85-km long included four Stations.¹⁹. The operation had stopped on this track is suspended in 2011. This all development was made by NWR. In 1924; BWP State Railway Line was spared to link with Rajasthan States Bikaner & Jodhpur, all the Civil & Mechanical works done by NWR.

Railway Stations of Bahawalpur State (British India) 1886-1924-²⁰

| | |
|--------------------------------------|------------------------------|
| <i>I. Samasata Junction- 000</i> | <i>II. Chak Abdullah 183</i> |
| <i>2. Baghdad - 19 Km</i> | <i>12. Madrisa</i> |

| | |
|---------------------------|---|
| 3. Abbasnagar - 46 Km | 13. Bahawalnagar Junction- Chord Line (Fort Abbas). Total 4 Railway Stations. Open on April 4, 1924 |
| 4. Goth Noor Muhammad | |
| 5. Lal Suhanra -----62 Km | 14. Mitti Roya |
| 6. Asrani -----73 Km | 15. Chabiana |
| 7. Khair Pur Tamewali 90 | 16. Minchinabad 219 Km |
| 8. Sheikh Wahan-- 106Km | 17. Chet Singhwala 226 Km |
| 9. Hasilpur ----- 123Km | 18. Mandi Sadiq Ganj Junction 234 Km |
| 10. Bakhshan Khan 139 | 19. Sobha Wala 246 Km |
| 11. Chistian----- 159Km | 20. Amruka. 257 Km- (Last Station of Pakistan). |



I. Phase of Railway Revolution in BWP State 1872-1886

II. Phase of Railway Revolution in BWP State 1886-1924

Final Summary: The Railway System & Infrastructure was dare need of British Empire. It was demanded of changing of time. East India Company initiated the projects in 1850s & British Govt. endoursed it. British Raj gradually enhanced the Railway System in Subcontinent. Perimierly they focus in Eastern Indian, Then in Central India & lastly they gave attention on North-West of India. In lens of the Railway Policy, Pessenger facilities was not their first perority, their mojour aim & object was commercial, Logistic & Defense Serives. For Defense point of view , it was policy of British Army to protect the forces from enemies. In Afghan-Anglo

Wars; The Indian Railway played a vital role for British Army. In WW-I & WW-II, the Role of Railway was very significant. Subcontinent is vast piece of land approximately 45 million Sq.km. It has high degree of diversity, plateaus, daltas, mountain & deserts. The British Engineers lay out the Railway Line & connect the uneven land through the Bridges. Some are very important & famous in Indian Railway history. Therefore; Adamwahan Sutluj Bridge also had a unique history 1872-78, It renamed as Empress Bridge. After Bombay, Culcatta, Bangal, Karachi, Delhi & Lahore; Such developments were launched by British Raj. There was a big gap between IVSR & Punjab Railway, So the Empress Bridge fill this gap & connect the Railway to entire cities of the British India. Post Sutluj Bridge; further advancement were initiated for State of Bahawalpur. In decade of 1870; BWP State was first Islamic State holds massive project for vital connection in Central India. This project prove gateway for the Bahawalpur State. From Multan to Kotri around 650 Km was missing link, so having the Empress Bridge, this connection becomes more vital for British Empire. To connect the Indus Valley State Railway with Punjab Railway initiated on 1870, later in start of 20th century further extension were accomplished in North & South. The Rajasthan Peninsula connected in South, Quetta, Peshawar and Kandhar were connected in North West part of India by NWR. The State BWP adopted significant position from East & Central India to link with major Port of Karachi. The Passenger and Cargo operation must pass through the Empress Bridge in BWP State. The Bahawalpur State was the premier state in the Rajasthan belt among the 23 States; where mega project of British Raj was commenced in third quarter of 19th century. Further extension was completed in next 50 years. Finally, the Empress Bridge was a vital connection in British Indian Railway History. After 145 years; the Empress Bridge is working smoothly & tremendously.

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