

## **UDHAMPUR-SRINAGAR-BARAMULLA RAIL LINK (USBRL)** **NATIONAL PROJECT**

### **1. Background :**

With a view to provide an alternative and a reliable transportation system to Jammu & Kashmir, Govt. of India planned a 345 km. long Railway Line joining the Kashmir Valley with the Indian Railways network. The Project has been declared as a **Project of National Importance**.

- 2.** The Jammu-Udhampur-Katra-Quazigund-Baramulla Railway line is the biggest project in the construction of a mountain railway since independence. From Jammu to Baramulla, length of the new rail line is 345 km. It passes through the young Himalayas, tectonic thrusts and faults. The work on Jammu-Udhampur section (53 Km) has been completed and was opened to public by Hon'ble Prime Minister in Apr'2005. In Qazigund-Barramulla section (Kashmir valley) of 119km, 101 k stretch from Anantnag to Barramulla has been completed. The section from Anantnag to Mazhom (66 KM) was **inaugurated and dedicated to the nation by the Hon'ble Prime Minister on 11/10/08**. The section from Mazhom to Baramulla (35 KM) was **inaugurated and dedicated to the nation by the Hon'ble Chairperson of UPA Smt. Sonia Gandhi on 14.02.09**. remaining portion is targeted for completion by June'2009. In the balance portion of Udhampur to Baramulla, work is in various stages of progress.

### **3. Scope of Work :**

The length from Udhampur to Baramulla is 292 km and has been divided into three sections.

<b>Item</b>	<b>Udhampur-Katra</b>	<b>Katra-Quazigund</b>	<b>Quazigund-Baramulla</b>	<b>Total</b>
Length	25 km	148 km	119 km	292 km
Important/Major Bridges	9	92	64	165
Minor Bridges	29	27	640	696
Tunnel length	10.9 km.	109.54 km	-	120.44
No. of Stations	3	12	15	30

### **4. Salient Features :**

This project has various special & unique features and several firsts in Indian Railways.

<b>Item</b>	<b>Udhampur-Katra</b>	<b>Katra-Quazigund</b>	<b>Quazigund-Baramulla</b>
Max Curvature	2.75°	2.75°	2.75°
Max. height of Bridge	85 m	359 m	13 m
Longest span	154m Steel Girder over river Jhajjar	465 m Steel Arch over river Chenab	45 m
Longest tunnel	3.15 km.	10.96 km	-
Max Height of Bank	21 m	55 m	9.7 m
Max Depth of Cutting	20 m	40 m	12 m
Alignment on Curvature	14%	37.83%	14.66%

## 5. Cost :

Latest estimated cost of the project is as under. This is under revision.

<b>Section</b>	<b>Latest estimated cost (Rs. in crore)</b>
Udhampur-Katra	640
Katra-Qazigund	8355
Qazigund-Baramulla	2275
Total	11270

6. This project is, perhaps, the most difficult new railway line project undertaken on Indian subcontinent. The terrain passes through young Himalayas, which are full of geological surprises and numerous problems. For execution purpose, project has been divided into 3 sub-sections. Construction activities are in progress on Udhampur-Katra, Katra-Quazigund and Quazigund-Srinagar-Baramulla section of the project. Katra-Qazigund leg is the most difficult stretch of this project. The alignment of this stretch which is 148 Km long, passes through Patni and Pir Panjal ranges. The alignment was proposed to be constructed on a ruling gradient of 1:100, (as approved by Board) with a maximum degree of curves being confined to 2.75 degrees. This alignment requires construction of 92 important/major bridges and 27 minor bridges. The alignment also requires, inter alia, construction of 65 no. of tunnels, totaling to a length of 110 kms bringing the percentage of the total length of the alignment on tunnels to approx. 76%.

## 7. Present Status of the Project :

- 7.1. For the ease of execution, the work has been sub-divided into the 3 legs.

**Leg -1** : Udhampur-Katra (25 km)

**Leg -2** : Katra-Qazigund (148 km)

**Leg -3** : Qazigund –Baramulla (119 km)

## **7.2. Leg -1:- Udhampur- Katra (25 km) :**

Udhampur-Katra section is 25 km long and involves about 11 km of tunneling, 9 important/ major bridges, 29 minor bridges and 10 ROB/RUBs in addition to about 38.86 lac cum of earthwork. The approx. cost of this stretch is Rs. 640 crs. The tallest bridge in this section is 90 mtr high ( Br. No. 20) and the longest tunnel is 3.15 km long.

## **7.3. Leg -2 :- Katra-Qazigund (148 km)**

This leg is the toughest section, full of tunnels and bridges/ viaducts, that has been constructed on the Indian Railways. It is much tougher terrain than Konkan Railway. The terrain in this region is full of poor geology and faults. Tunneling and bridging is a challenge greater than that was met on Jammu-Udhampur or Udhampur-Katra section and will be a matter of pride for the engineers of Indian Railways.

The stretch between river Chenab and Banihal is passing through a virgin territory and requires construction of about 300 km of access roads. At Qazigund end of this stretch, the longest tunnel on Indian Railways is being constructed (T-80, Pir Panjal Tunnel). This tunnel is 10.96 km long and will pierce through the Pir Panjal range below the snow line. The engineers working on this section are facing multifarious problems due to extremely difficult and inaccessible terrain, technical problems and adverse security concerns of extremist activities in the State.

## **7.4. Leg 3 : Qazigund-Baramulla (119 km)**

This section falls in the Kashmir Valley, which is a natural bowl, surrounded by the mountain ranges. Though there is no tunnel, heavy bridging is required across rivers, canals and roads.

Section from Anantnag to Baramulla of 101km has been completed and commissioned. The section from Anantnag to Mazhom (66 KM) was **inaugurated and dedicated to the nation by the Hon'ble Prime Minister on 11/10/08**. The section from Mazhom to Baramulla (35 KM) was **inaugurated and dedicated to the nation by the Hon'ble Chairperson of UPA Smt. Sonia Gandhi on 14.02.09**. remaining portion is targeted for completion by June'2009.

The DEMU coaches have been transported to the valley by employing a very innovative concept of moving these coaches by road using specially modified road trailers. All 23 coaches have already reached.

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