

# NFR (Const.) – A Life Line In Connectivity And Infrastructure Development In North Eastern Region & Neighbouring Countries

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**N**ortheast India (officially called North Eastern Region, NER) is the easternmost region of India representing both a geographic and political administrative region of India. This region comprises eight States-Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The Siliguri Corridor (popularly known as chicken neck) in West Bengal, with a width of 21 to 40 kilometres, connects the North Eastern Region with rest of India. Though the NER was a prosperous area in British India, after independence and creation of Bangladesh (then East Pakistan), all existing communication links through Bangladesh were snapped. Though new roads and railways were constructed through the 'Siliguri corridor', but due to this bottleneck, the overall progress of the entire Northeast region is lagging behind in the development of rail network, causing a major stumbling block in the socio - economic development of the region. Keeping this in view, "North East Region Vision 2020" was formulated which aims at connecting all the State capitals of Northeast region with rail network by the year 2020. Possibility of restoration of old communication links and opening of new international mouths through Bangladesh, Nepal and Myanmar are also being explored.

Construction Organization of N. F. Railway was created in 1979 headed by GM/Const. and has been entrusted with the task of construction of new railway lines, gauge conversion, doubling and other major works in the eight Northeastern States including some parts of Bihar and West Bengal. Most parts of the N.E. region have difficult terrain, poor infrastructure facilities and are infested with problem of militancy. In spite of these impediments, Construction Organization is making significant contribution in the development of rail network in the Northeast region.

The Northeast region shares more than 4,500 kilometres of international border with China in the north, Myanmar in the east, Bangladesh in the southwest and Bhutan to the northwest. From the strategic point of view, it is important to have better rail/road communication connecting all the NE States.

## **National/ Other Projects**

For better management, control and monitoring, Railway projects which connect State capitals of Northeast region have been declared as "National Projects" by the Govt. of India to ensure enhanced funding for these projects. N.F. Railway Construction Organization is implementing 11 National Projects in the Northeastern Region which include nine New Lines projects including one Rail-cum-Road Bogibeel Bridge Project near Dibrugarh over river Brahmaputra and two Gauge Conversion projects. Apart from these National Projects, there are 32 other projects which are at different stages of construction.

A summarized position of these projects in Northeast region is as under:



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## SECTION - 3 • Zonal Railway

Plan Head	New Line	Gauge Conversion	Doubling	Total
Projects in progress (Nos.)	25	7	11	43
Total anticipated cost(Crs.)	61749	16527	11325	89601
Expenditure as on 31.3.2017 (Crs.)	22432	14773	1407	38612
Balance as on 01.04.2017 (Crs.)	39316	1754	9918	50989
Budget Grant for 2017-18 (Crs.)	5304	589	672	6565
National Projects (Nos.)	9	2	-	11
Sanctioned Length of ongoing Projects as on 01.04.2017 (Km)	1946	2471	659	5076
Length of ongoing projects commissioned as on 1.4.2017 (Km)	561	2471	66	3098
Balance length of ongoing projects as on 1.4.2017 (Km)	1385	0	593	1978

Construction Organization has so far constructed two major bridges over mighty river Brahmaputra, has converted all existing MG lines into Broad Gauge which includes Lumding – Silchar, Arunachal – Jiribam & Badarpur–Kumarghat (421 Km), Rangiya – Murkongselek including finger line of Balipara–Bhalukpong (505 Km), Jogbani–Katihar–Barsoi–Radhikapur and Katihar–Tezranyanpur(236.14 Km), New Jalpaiguri–Siliguri–New Bongaigaon including branch lines (419.17 km), Katakhal –Bairabi (84 Km). Construction Organisation has also constructed new BG railway lines to connect Itanagar, capital of Arunachal Pradesh and Agartala, capital of Tripura.

For the current year 2017-18, NF Railway Construction organization has fixed a target of commissioning of 148.92 Km of BG network out of which total New Line of 88.71 Km and Doubling of 60.21 Km have so far been completed. Balance lengths are nearing completion.

In last four years and in current year, 1422.57 Km BG line have been commissioned by running of passenger train services. Year-wise commissioning of track is given in table below :

Year	NL	GC	DL	Total
2011-12	58.92	100.58	9.76	169.26
2012-13	0.00	0.00	0.00	0.00
2013-14	0.00	154.66	0.00	154.66
2014-15	41.75	172	10.30	224.05
2015-16	132.05	398.47	8.12	538.64
2016-17	172.00	291.40	17.62	481.02

In addition to above, record number of tunnels (71.65 Km out of 177.30 Km) and large number of major bridges are also constructed in last four and half years. Longest rail cum road bridge at Bogibeel across River Brahmaputra (5 Km) and bridge with tallest pier (141m) at Noney in Manipur as part of Jiribam-Imphal Project are under construction. Several other tall pier bridges are under different stages of construction in

Jiribam-Imphal (Manipur) and Bairabhi-Sairang (Mizoram) New Line Projects.

State-wise details of various ongoing projects are furnished below:

### Arunachal Pradesh

New BG line was commissioned from Harmuti in Assam to Naharlagun (Itanagar) on 07.04.2014. With the commencement of train services up to Naharlagun, Itanagar became the second state capital in North East after Guwahati (Assam) to figure on the BG map of Indian Railways after country's independence. At present another new line project from Murkongselek to Pasighat (26.15 Km) is planned to be taken up in Arunachal Pradesh.



(left) Naharlagun Railway Station, 1<sup>st</sup> Passenger train at Naharlagun Station (Itanagar) (right)

Three strategic surveys in State of Arunachal Pradesh viz. i) Pasighat – Tezu -Parsuramkund – Rupai (227.00 Km), ii) Misamari (Bhalukpong) – Tenga-Twang (378.00 Km) and iii) North Lakhimpur – Bame (Along) – Silapathar (249.00 Km) are also in progress. Once the surveys are completed, these works are likely to be sanctioned in near future.



### Assam

Guwahati, the capital of Assam was connected by metre gauge railway line well before Independence. The capital was provided with broad gauge rail connectivity after completion of New BG extension from New Bongaigaon to Guwahati in 1984. Subsequently, several important projects were taken up in the State of Assam. A mega road bridge “Kaliabhomora Bridge” over river Brahmaputra near Tezpur was constructed in 1988 by Construction Organization. A new BG railway line connecting Jogighopa to Kamakhya via south bank (144.54 Km) with construction of a road cum rail bridge over river Brahmaputra at Jogighopa was completed in 2000 to reduce traffic congestion on the New Bongaigaon – Rangiya – Kamakhya section (including Saraighat

bridge near Guwahati). Several railway projects were undertaken to provide rail links to neighboring States. Thus, railway line from Balipara to Bhalukpong in Arunachal Pradesh (35.46 Km MG line), Lalabazar to Bhairabi in Mizoram (48.15 Km MG Line), Arunachal station to Jiribam in Manipur (49.16 Km MG line) and Amguri to Tuli in Nagaland (14.65 Km BG line) were completed during early 1990s.

At present the Gauge Conversion project of Lumding – Badarpur – Silchar, Arunachal – Jiribam, Badarpur – Kumarghat, Baraigram – Dullavcherra, Karimganj – Maishashan Karimganj Bye-pass (Total-420.90 Km), Katakhal –Bairabhi (84.00 Km), Rangiya – Balipara – Harmuti – Murkongselek with finger lines Balipara – Bhalukpong and Rangapara North – Dekargaon (Total – 505 Km) has been completed and commissioned for passenger services. Thus, the entire MG network has been converted to BG network. The Karimganj – Maishashan link will be a part of Trans-Asian Rail Network through Bangladesh.

Work is also near completion stage at 5 Km long, 3<sup>rd</sup> Mega Rail-cum-Road Bridge at Bogibeel on mighty river Brahmaputra near Dibrugarh. All the 41 girders have been launched and road deck slab concreting is in progress. The north bank road approach is already completed and south bank approach is in progress under PWD, Assam. It is expected to commission all works of the bridge in 2018.

A new rail bridge over river Brahmaputra near Tezpur as a part of the newly proposed Tezpur – Silghat New line and another rail bridge at Saraighat near Guwahati and parallel to existing single line Rail cum Road Bridge are on the anvil. New line connecting Sivasagar – Jorhat and Salona – Khumtai are proposed and preparation of DPR and detailed estimate are in progress.

To remove the communication bottleneck, the single line BG section from New Jalpaiguri to Lumding is under conversion to Double Line BG section. With completion of this doubling work, the line capacity of the section will improve. From New Bongaigaon to Guwahati, the doubling work is in progress via Goalpara Town (South bank). The proposed 2<sup>nd</sup> bridge over Brahmaputra at Saraighat will help conversion of the section from New Bongaigaon to Kamakhya via Rangiya. Completion of the doubling works will help to

increase the track capacity in the busy and over saturated section from New Jalpaiguri to Lumding.

### Meghalaya

In the state of Meghalaya, the first ever railway link started with rest of the country after commissioning of Dudhnoi-Mendipathar new BG line by flagging off of the first passenger train from Mendipathar station on 29.11.2014 by Hon'ble Prime Minister. Other new line projects for Meghalaya are Tetelia (Assam) to Byrnihat (Meghalaya) (21.5 Km) Phase-I and Byrnihat to Shillong (108 Km in Meghalaya) Phase-II which are in progress.



Mendipathar Station Building

### Manipur

In Manipur, a new line of 111 Km from Jiribam to Imphal, the capital of Manipur has been taken up from both ends to expedite the work. The entire project is expected to be commissioned by December, 2020. As a part of this project, a marvelous bridge is under construction near Noney. The Railway Bridge (No.164) will be the bridge with world's tallest pier of 141 meter height surpassing the existing tallest pier of 139 meter of Malarijeka bridge in Montenegro, Europe.

Survey work for extension of the above line up to Moreh is completed. Moreh in India is a border town with Myanmar. The Jiribam-Imphal-Moreh-Kalay (Myanmar) is a part of the proposed Trans Asia Railway Network.



Bridge No. 44 Work in progress, Jiribam - Imphal project



Bogibeel Bridge near Dibrugarh

**Tripura**

The existing MG line from Churaibari to Kumarghat has been converted to BG. New railway line from Kumarghat to Agartala has been completed in two stages- first as MG in 2006 and then converted to BG in 2015. To expand the railway network further in the state, the work of construction of new BG line from Agartala to Sabroom (112 Km) is going on in full swing. Commissioning of Phase-I work from Agartala to Udaipur (44 Km) and Phase –II Udaipur – Garjee (9.20 Km) have been completed so far. This line has the potential of extension to Chittagong Port in Bangladesh. When connected, Tripura will be a gateway to entire NE regions. Another new line connecting Agartala with Akhaura in Bangladesh is in progress to link Indian Railways with Bangladesh Railways. This line will be a part of the Trans Asian Railway Network and will provide a much shorter connectivity from Tripura to Kolkata and vis-à-vis to Southern India. Once, this line is commissioned, people of NE region can move to Kolkata and other southern parts of India through Bangladesh. It will drastically reduce the travel distance and time. At present, Railway distance between Agartala and Kolkata on Indian Network is 1613 Km. The same distance through Bangladesh will be 514 Km only. This Indo-Bangla Rail Network will connect Agartala (India) with Chittagong Port of Bangladesh which shall be at a distance of only 213 km.



**First Commercial Freight Train run on 21.02.2015 to Mizoram**

**Nagaland**

To connect Kohima, the capital of Nagaland, Dhansiri-Sukhobi-Zubza covering a distance of 92 Km is in progress. The Project was declared as a National Project in 2007. Land acquisition is completed between Km2.75 to Km 16.00 and construction works have started. Land acquisition for the balance length is in progress. Another project of construction of a new line from Dimapur to Tizit (257 Km) has also been sanctioned in the budget 2013-14. Final Location Survey for this project is in progress.



**Agartala Railway Station (Tripura)**



**Udaipur Railway Station (Tripura)**



**Mizoram**

In the State of Mizoram, work of new line from Bhairabi to Sairang (51.38 Km) is in progress and is targeted to be commissioned by December'2020. A survey for a new line from Aizawl to Hbichhuah is already completed.



**Sikkim**

Sikkim is yet to be connected with Indian Railway network. A new line from Sivok in West Bengal to Rangpo in Sikkim (44.39 Km) is presently under construction. Detailed estimates for ₹ 3380.58 Cr has been sanctioned by Railway Board on 02.12.2015. The project has been entrusted to M/s. IRCON for execution. MoU has been signed. Land acquisition in West Bengal is slow due to forest clearance. Work has started in Sikkim portion.

**Rail Connectivity with Neighbouring Countries (Nepal, Bhutan and Bangladesh)**

To provide rail connectivity to the neighbouring countries like Nepal, Bhutan and Bangladesh, the Construction Organization has under taken many survey works for new railway lines to these countries. These are :

**Connectivity with Bangladesh**

- Agartala (India) – Akhaura (Bangladesh) – As stated above the works have already started.
- Radhikapur (India) – Birol (Bangladesh) – The old

connectivity before independence was restored in 2016.

- Haldibari (India) – Chilahati (Bangladesh) – Proposal for restoration of old connectivity with Bangladesh through this section is approved and works in Indian portion has already started with target date of completion as March'2018.
- Belonia (India) – Feni (Bangladesh) - Survey to connect Belonia Station (India) on Agartala-Sabroom New BG line under construction with Feni (Bangladesh) has been sanctioned. The survey is yet to be carried out as MoU between Indian and Bangladesh Government for this work is yet to be executed. This line can provide port connectivity to Indian railway network and boost trade.

### Connectivity with Bhutan

At present there is no rail link with Bhutan. Feasibility studies have been carried out for extending Rail head (India) to Bhutan at 5 locations. These are as under :

- Kokrajhar (Assam, India) to Gelephu (Bhutan) (57.70 Km)
- Pathsala (Assam, India) to Nanglam (Bhutan) (51.15 Km)
- Rangiya (Assam, India) to Samdrupjongkhar (Bhutan) (48.04 Km)
- Banarhat (West Bengal, India) to Samtse (Bhutan) (23.15 km)
- Hasimara (West Bengal, India) to Phuentsholing (Bhutan) (17.52 Km)

### Connectivity with Nepal

At present there is no Rail link with Nepal. One BG connectivity work between Jogbani (India) and Biratnagar (Nepal) (18.60 Km) has already been sanctioned. The work in Indian portion is being executed by IRCON. The work is in progress. The tentative target for completion is March'19 subject to availability of land in Nepal. Survey for another connectivity between New Jalpairuri (Naksalbari) (India) and Kakrabita (Nepal) has also been completed. The work is not yet sanctioned. Raxaul (India) can also be connected up to Kathmandu (Nepal) (90 Km).

### Connectivity with Myanmar

Imphal to Moreh (India) (123 Km) survey has been completed. Moreh to Tamu to Kalay (Myanmar) survey has been completed by RITES.

Agartala-Darlawn (Mizoram, India) to Kalay (Myanmar) (257 Km) can be proposed for survey and execution of works.

Sairang (India) to Hbichhuah (India - Myanmar border) (325 Km) survey completed. This line can be further extended up to Koladyne river/Sitwe port in Myanmar via Paletowa. Thus, a port connectivity at this easternmost part of the country can be achieved through this rail link.

### Connectivity with Trans Asian Railway Network (TARN)

Mountainous northeast India can be connected to the railway network of neighbouring Myanmar to link

up with the ambitious 81,000 km-long Trans-Asian Railway Network (TARN) through Imphal – Moreh – Tamu - Kalay. For the development of Northeast India's economy, trade, tourism and people-to-people contacts between the region and Southeast Asian countries, the TARN can play a vital role.

### Challenges during Execution of Works in Northeast Region

The North Eastern region has always been very sensitive from the point of security. During execution of railway projects in Northeast region, Railways have been facing many challenges namely security, limited working season, non-availability of sophisticated machineries, parts, operators & service centers, frequent bandhs, non-availability of resourceful contractors, poor road & other infrastructure, poor medical facilities. Further, people in the north eastern hilly States are comprising of small ethnic tribal groups with their own unique culture and languages. These people of the hilly states are reluctant to welcome railways in their States due to apprehension that with advance of railways to their States, they may weaken their identity. Due to above reasons, the progress of works getsoften affected.

Militant activities are hampering progress of works in different parts of Northeastern region as more & more insurgent groups existing in different parts are creating hurdles by threatening/abducting/killing railway and contractors' supervisors and staff. The role of security forces who are tirelessly providing security to Railway staff, property and construction sites is also appreciated.

Despite these problems, the morale of the officers, staff and contractors has been quite high. Significant progress could be achieved because of their sincerity along with cooperation extended by the State Government authorities. There is a need to synergize the efforts by all concerned to expedite these projects for speedy development of Northeast region to meet with the aspirations of the people of the region and to erase the feelings of alienation from rest of the country. Railway can bring overall development of this region which will ultimately bring peace and prosperity to the people of this region.

