

CHAPTER-IV

PUBLIC SECTOR UNDERTAKINGS UNDER THE MINISTRY

4.1 Telecom services provided by Bharat Sanchar Nigam Limited in North Eastern Region of India

4.1.1 Introduction

North Eastern Region (NER) of India comprises the States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. They form part of the East Himalayan region. These eight States have a population of 4.58 crore and cover an area of 2,62,189 sq. km, about 8 *per cent* of the country's total geographical area. The region has a long international boundary and has poor infrastructure like rail, roads, electricity and telecom. Connectivity is the most important key to development of a region; be it road, rail, waterway, air, power or telecom. Hence, robust telecom and broadband connectivity and provision of quality telecom services are an avowed national priority.

At present, there are three Licensed Service Areas (LSAs) for the NER States viz. Assam LSA covering only the State of Assam, North East LSA covering six states viz. Meghalaya, Tripura, Mizoram, Arunachal Pradesh, Nagaland and Manipur and Sikkim is in West Bengal LSA.

BSNL has been providing the following technology-oriented integrated telecom services in the region:

- **Consumer Fixed Asset (CFA) Services** - Wire line Services, Internet and Broadband services including Fiber to the Home (FTTH), Enterprise Data Services such as Leased circuits, Multi Protocol Label Switching (MPLS) Virtual Private Network (VPN), Pre-paid Calling cards etc.
- **Consumer Mobility Services** –Global Services for Mobile (GSM) Services including 2G, 3G and Value added Services (VAS), Wireless Local Loop (WLL) Code Division Multiple Access (CDMA) Services, Worldwide Interoperability for Microwave Access (WiMAX) services, etc.

For providing the above telecom services in the region, BSNL has established its own Telecom network consisting of Trunk and Telephone exchanges for providing landline

services, Mobile Switching Centres (MSCs), Base Station Controllers (BSCs) and Base Transceiver Station (BTS) for providing GSM and CDMA mobile services. Besides, the Company has its own transmission media such as Optical Fibre Cable (OFC), Micro Wave and Very Small Aperture Terminal (VSAT) connecting the telephone exchanges, MSCs, BSCs and the BTS. Apart from these, BSNL has also established an International Gateway (IGW) at Agartala (Tripura) in collaboration with Bangladesh Submarine Cable Company (BSCC) for improving quality of the internet connectivity in NER.

For establishing the telecom network in NE region, BSNL meets the OPEX and CAPEX out of its own funds. Besides, the Company is provided with subsidy from the USOF for specific projects such as the Village Panchayat Telephones, Infrastructure such as BTS, OFC, Broad Band connections and Comprehensive Telecom Development Plan (CTDP).

Status of Telecommunications Network in NER

The overall status of telecommunications network as provided by BSNL in NER is provided in table below:

Table-1

Status of Telecommunications Network provided by BSNL in NER

Year	Landline	Wireless	VPT	Broadband connections	Working OFC
	Nos	Nos	Nos	Nos	RKM
2012-13	395000	3122100	37993	155220	16166
2013-14	333000	2937700	38140	160289	19908
2014-15	304000	2781900	38220	161393	20270
2015-16	290000	3012200	34564	165186	21126
2016-17	281000	3242700	11614	167196	21620

(Source: State wise target and achievement given by CP&M Section, BSNL Corporate Office)

The Subscriber base of BSNL in Assam and NE LSAs vis-à-vis Private Service Providers (PSPs) are as follows:

Table-2
Details of Subscriber base of BSNL in Assam and NE LSAs vis-à-vis
Private Service Providers

(in lakh)

As of	Wireless				Wireline			
	Assam		NE*		Assam		NE*	
	BSNL	Others	BSNL	Others	BSNL	Others	BSNL	Others
March 2013	12.36	131.52	17.57	72.04	1.94	0	1.90	0
March 2014	12.81	139.97	15.22	78.89	1.83	0.01	1.40	0
March 2015	12.61	158.90	14.07	89.83	1.66	0.01	1.27	0
March 2016	13.16	172.16	15.37	94.46	1.59	0.02	1.24	0
March 2017	15.07	203.03	15.92	108.99	1.53	0.02	1.21	0

Source: TRAI Subscription data

** Excluding Sikkim*

It could be seen from Table 2 that as of March 2017, the wireless subscriber base of BSNL in Assam and NE LSA was 15.07 lakh and 15.92 lakh respectively as against 203.03 lakh and 108.99 lakh respectively of PSPs. Further, in the wireline segment the number of subscribers as on March 2017 was 1.53 lakh and 1.21 lakh in Assam and NE LSA respectively.

4.1.2 Organizational set up

BSNL has 26 territorial Circles all over India of which three Circles are in NE region, viz. Assam Circle, NE-I Circle (Meghalaya, Tripura, and Mizoram) and NE-II Circle (Arunachal Pradesh, Nagaland and Manipur). Sikkim is part of West Bengal Circle.

Each Circle is headed by a Chief General Manager (CGM). Besides, one CGM (CGM North East Task Force (NETF)) is exclusively looking after the installation and commissioning of different transmission projects while another Project circle i.e. Eastern Telecom Project (ETP) headquartered at Kolkata looks after some portion of transmission projects. Further, the maintenance circle i.e. CGM, Eastern Telecom Region (ETR) headquartered at Kolkata is responsible for maintenance of long distance transmission, microwave projects, satellite, etc. in the NER.

4.1.3 Scope of Audit

The audit covered the telecom services provided by BSNL in NE Region covering states of Assam, Meghalaya, Tripura, Mizoram, Arunachal Pradesh, Nagaland, Manipur and Sikkim. The period of audit coverage is from 2012-13 to 2016-17. Audit was conducted at BSNL Corporate Office, Circle headquarters of Assam, NE I, NE II, NETF, ETR, ETP circles and selected Secondary Switching Areas (SSAs)¹.

¹ Dibrugarh and Silchar of Assam, Sikkim of West Bengal, Meghalaya, Mizoram and Tripura of NE-I Circle and Arunachal Pradesh, Nagaland and Manipur of NE-II.

4.1.4 Audit Findings

The review covers important facets of the functioning of BSNL in North Eastern Licensed Service Area relating to planning, procurement, utilization and operational performance. These aspects are evaluated against norms/targets set in the project report as well as orders/instructions issued by the Corporate Office, TRAI and DoT, Memorandum of Understanding (MOU) signed between DoT and BSNL and BSNL's own targets.

The significant audit findings are brought out in the succeeding paragraphs.

4.1.4.1 Inordinate delay in implementation of Intra -district OFC network in Assam

BSNL entered (February 2010) into an agreement with USOF for support from USOF for augmentation, creation and management of Intra-District Sub-Divisional Headquarters (SDHQ) - Divisional Headquarters (DHQ) OFC Network for transport of rural/remote area traffic on bandwidth sharing basis in the service area of Assam covering 27 DHQs and 269 SDHQ. The agreement was effective from 12 February 2010 and remain valid for seven years. BSNL was to commission Intra-district OFC transport network within 18 months from the date of signing of the agreement i.e. by 11 August 2011. BSNL could not complete the work within the stipulated time due to tough terrain, frequent bandhs, lack of skilled manpower, non-availability of OFC cable pair from SSA, delay in readiness of the sites and delay in receiving fund. Consequently, USOF, at the request of BSNL extended the roll out period from time to time i.e. August 2012, December 2014, September 2016 and lastly to June 2017. Even as of June 2017, work was completed in 25 districts and pending in the two districts viz. Dima Hasao (erstwhile North Cachar Hills) and Karbi Anglong.

Thus, the complete roll out of connectivity could not be achieved even after a delay of more than six years. The reasons attributed by BSNL for the delay in completion of the project indicate lack of coordination between the Assam Circle, the NE Task Force and the Civil Wing of BSNL as well as between BSNL Corporate Office and its field units on specific requirements of the Project. Due to non-completion of the project, the complete roll out of connectivity in Assam service area could not be achieved and also BSNL could not claim USO subsidy of ₹ 66.72 crore².

Ministry stated (March 2018) that NE Task Force had encountered numerous obstacles like inhospitable terrain, rainy season upto nine months in a year, frequent floods/

² ₹7.38 cr of 40% FLS of two districts + ₹9.89 cr of 10% service area commissioning which would be paid on completion of entire service area + ₹49.45 cr i.e. 50% Equated Annual Subsidy(EAS)

landslides, frequent bandhs and shortage of skilled manpower. It further stated that identification of nodes in some districts consequent to division of districts and non-feasibility of laying OFC, etc. led to delay. At present, only five sites (Sangbar, Amrikhat, Jirikindling, Umrangsu and Digheli) were not commissioned of which four sites were of difficult area and the fifth site was allotted only in March 2016. 99 per cent of the project was completed and these sites would be completed by March 2018. BSNL also stated that payment of 40 per cent subsidy was linked up with commission of network district-wise and BSNL had claimed the subsidy for 24 out of 27 districts. Claim for one district was pending with CCA, Guwahati and the claim for the remaining two districts would be submitted after completion of all nodes in these districts.

The reply is not convincing in view of the fact that BSNL did not complete the work even in the extended time. USOF granted repeated extensions from time to time to BSNL on the grounds cited and despite the extensions, the work remained incomplete.

4.1.4.2 Delay in commencement of implementation of Comprehensive Telecom Development Plan for the North-Eastern Region

Government of India approved (September 2014) the implementation of Comprehensive Telecom Development Plan (CTDP) for NE Region. As per the approval:

- BSNL was nominated to execute the work related to the provision of mobile services in Arunachal Pradesh and two districts³ of Assam. The estimated project cost was ₹ 1975.38 crore and USOF would fund Capital Expenditure (CAPEX) and Operating Expenditure (OPEX) net of revenue for a period of five years. 10 per cent centage was payable to BSNL from USO Fund.
- BSNL was also nominated to execute the work related to Transmission Media Plan (i.e. providing OFC Ring connectivity to state capitals and district headquarters and augmentation of transmission media. The estimated project cost was of ₹ 295.97 crore Capex would be funded from USOF.

BSNL was to ensure that bids were invited through a transparent bidding process and actual costs (CAPEX plus OPEX) for five years in case of 2G coverage in uncovered villages and CAPEX in case of Transmission Media Plan discovered through the tendered process were to be submitted for the approval of Telecom Commission.

³ Karbi Anglong & Dima Hasao districts

The benefits/ results of the project, the time-frame for implementation and the status as of December 2017 is as furnished in Table 3 below:

Table-3

Details of benefits/results of the project, the time-frame for implementation and the status as of December 2017

Item	Time frame	Actual position
2G Mobile coverage in uncovered areas 2G seamless mobile coverage along the National Highways Ensure reliability and redundancy in the transmission network at state capitals and district headquarters	One year after Cabinet Approval for Tendering, Award of Work, Rule Modification and Signing Agreements i.e. September 2015 Eighteen months after signing of Agreements for Rollout for 2G coverage in uncovered areas in NER and seamless mobile coverage along the National Highways	BSNL is yet to commence the nominated works as the tenders called by BSNL were yet to be finalised.
OFC Ring Connectivity and Augmentation of Transmission Media in NER	Two years after signing of Agreement	

a. 2G mobile coverage in uncovered areas

BSNL issued (April 2016) Notice Inviting Tender (NIT) for Survey, Planning, Supply, Installation, Testing, Commissioning, Integration with existing core network and Operations & Maintenance for five years of 2G GSM Network in uncovered villages of Arunachal Pradesh and Karbi Anglong & Dima Hasao districts of Assam along with Radio and VSAT backhaul. As per the time-frame stipulated in the sanction by the Union Government, Tendering, Award of Work, Rule Modification and Signing Agreements was to be completed by September 2015. However, the tenders were invited only in April 2016 and discovered price communicated to USOF only in May 2017. Due to delay in inviting of tender and communication of discovered price to USOF, the implementation of the project was yet to commence.

Ministry replied (March 2018) that:

- After nomination of BSNL by USOF in September 2014, BSNL sought clarifications from USOF about VSAT technology, bifurcation of tendered and non-tendered CAPEX & OPEX, EDGE/ GPRS technology, etc. DoT constituted (February 2015) a Committee for looking into the optimization of satellite transponder requirement and the Committee submitted its report in

March 2015. The specifications as finalised by the Committee was incorporated in the tender. As regards bifurcation of tendered and non-tendered CAPEX & OPEX, USOF workout the estimated cost only in November 2015. Thus, USOF delayed the finalisation of specifications and hence, BSNL could not call tender as these were required to be incorporated.

- Regarding delay in finalisation of tender, BSNL stated that USOF finalised the specifications for VSAT, Data facility, etc. by March 2016 only. Thereafter BSNL called the tenders in April 2016 as these specifications were needed to be incorporated in the tender document.
- As regards delay in evaluation of tender, BSNL stated that field testing of the offered equipments was completed in September 2016 and several complaints/representations were received from the bidders whose equipments failed in the field test. A high level committee constituted in BSNL recommended retesting of the equipments and retesting was completed on 8 March 2017. As complaints were received again, opinion of Ld. Attorney General of India on the correctness of process followed was sought. The opinion was received on 20 April 2017, bids opened on 25 April 2017 and submitted the discovered price to USOF on 1 May 2017.

While appreciating the reply of the Ministry, Audit contends that though the project was sanctioned by the Government in September 2014, there was delay on part of both BSNL as well as USOF in finalizing the specifications of the equipments. This delay resulted in the project becoming a non-starter even after more than three years of approval by the Cabinet.

b. OFC Ring Connectivity and Augmentation of Transmission Media in NER

As mentioned in para 4.1.4.2 above, BSNL was nominated (September 2014) to execute the work related to Transmission Media Plan (i.e. providing OFC Ring connectivity to state capitals and district headquarters and augmentation of transmission media) at an approved estimated project cost of ₹ 295.97 crore to be funded by USOF. The works to be executed were as detailed in Table 4 below:

Table 4

Details of Work as per the project and Cost estimated for CAPEX by USOF

Sl. No.	Item of Work	Quantity	Cost estimated for CAPEX by USOF (₹ in crore)
1	Laying of Under Ground (UG) Optical Fibre Cable (OFC)	2122 KMs.	169.79
2	Laying of Aerial OFC	1091 KMs.	87.28
3	Deployment of Dense Wavelength Division Multiplexing (DWDM) equipment	70 Optical Add-Drop Multiplexers (OADMs) and 88 Optical Amplifiers (OAs)	14.90
4		21 nos. of Digital Cross Connect (DXC)	24.00
Total			295.97

The project also envisaged that:

- The ownership of the assets created under the project would vest in BSNL;
- The NIT was to be issued by December 2014 and the Tender evaluation and submission of discovered cost to the Ministry was to be completed by March 2015.

BSNL issued (February 2015) tenders for laying of Under Ground (UG) cable, cable ducts etc. and procurement of DWDM equipment. The estimated cost vis-à-vis discovered cost was as given in Table 5 below:

Table 5

Details of Item-wise Estimated cost and Discovered price

Sl. No.	Item	Estimated cost	Discovered cost
		(₹ in crore)	
1.	OFC	257.07	498.68
2.	DWDM Equipment	38.90	84.16
Total		295.97	582.84

The cost discovered through open tenders alongwith observations and analysis with reference to discovered cost was intimated (January 2016) to USOF. USOF directed (May 2016) BSNL to decide/ approve the discovered cost and submit clear and categorical recommendations that the tendered rates were reasonable by 6 June 2016 so

as to conclude/complete the entire process and arrive at finalised rates. BSNL furnished (December 2016) its recommendations to USOF stating that the rates were reasonable considering the fact that the same were discovered through open tendering process followed by e-reverse auction and price negotiation and sought approval of USOF for the discovered cost. USOF intimated (April 2017) BSNL that the discovered price of ₹ 582.84 crore was higher than the fund of ₹ 295.97 crore approved by the Cabinet and hence BSNL may go for retendering. BSNL decided (May 2017) to float another tender on turnkey basis. BSNL is yet to finalise (January 2018) the tender called in May 2017. Thus, due to delayed decision making, the tender called in February 2015 was cancelled only in April 2017 and thus, the project was yet to take off. Hence, the objective of ensuring reliability and redundancy in the transmission network in NE region was yet to be realised.

4.1.4.3 Poor progress of rehabilitation work of OFC routes

The transmission media plays a key role in carrying bulk data traffic from node to node. In NE region data traffic is being carried through the following media:

- (i) Optical Fiber Cable
- (ii) Radio
- (iii) Satellite

BSNL hired OFC media from other PSUs to provide reliable transmission media in view of its own OFC being damaged due to road expansion work causing disruption of service.

Regional Trunk Planning Committee (RTPC) approved (April 2008 and June 2014) 116 OFC routes for rehabilitation work in Assam, NE-I and NE-II Circles. The works were to be executed by North East Task Force (NETF), Guwahati.

Audit scrutiny of the progress reports of rehabilitation work revealed that the progress of work was 10 per cent in Assam and nil in NE-I and NE-II circles as on date though all the works were approved long back and the delays ranged between 3 to 10 years. It was noticed that in every RTPC Meeting, the target date for commissioning of OFC routes were changed without achieving the targets. The poor progress of work was due to work not yet taken up by CGMTF, road-widening issues, delay in tender procedure, right of way awaited and delays in executing the work. The details are as below:

Table 6
Circle-wise Status of OFC Routes

Classification/Status	OFC Routes to be completed (In Kms)		
	Assam	NE-I	NE-II
Road under expansion, so not taken up	518.00	82.00	22.00
Route is < 10 Km, so shall not be taken up by NETF	32.50	142.50	4.60
Commissioned by North East Task Force (NETF)	157.05	0.00	0.00
Route in WIP (PLB laid for 58.423 KM)	58.20	94.92	18.40
Route taken up by NETF, No PLB laid	269.30	37.42	276.20
To be taken up by NETF	479.50	271.00	8.80
Done by Eastern Telecom Region (ETR)	0.00	37.00	0.00
ETR requested to delay the route	0.00	10.00	0.00
No decision taken in CPB	0.00	0.00	67.00
Total	1514.55	674.84	397.00

It was observed by Audit during July-August 2017 that out of 1515, 675 and 397 KMs of OFC to be rehabilitated in Assam, NE-I and NE-II circles respectively, NETF took up the work only in 485 KMs (32 per cent), 132 KMs (20 per cent) and 295 KMs (74 per cent) in Assam, NE-I and NE-II respectively of which PLB was not laid in 269 KMs, 37 KMs and 276 KMs respectively. Thus, out of total 2586.39 KMs of OFC routes to be commissioned in NER, only 157.05 KMs (6 per cent) was commissioned by NETF.

Due to poor progress of rehabilitation OFC work in the region, BSNL hired media mostly from M/s Oil India Ltd and M/s Power Grid Corporation of India Ltd (PGCIL).

Ministry replied (March 2018) that fresh laying of OFC was taking considerable time due to the difficult terrain, difficulties in getting Right of Way from State Governments and due to arbitration cases. It further stated that the progress of rehabilitation work improved in 2016-17 with the availability of OF cable.

4.1.5 Non-provisioning of Mobile connectivity in the international border areas

The Ministry of Home Affairs (MHA) had taken up (July 2014) the issue of installation of mobile towers by BSNL with DoT to cover Border Out Posts and Left Wing Extremism (LWE) region where there was no connectivity of mobile to Central Armed Police Forces (CAPFs) viz. Sashastra Seema Bal (SSB), Assam Rifle, Indo-Tibetan Border Police (ITBP), Border Security Force (BSF) and Central Reserve Police Force (CRPF). The following was decided in July 2014:

- i. Joint survey teams of CAPFs and BSNL would conduct survey for all the site locations required by the CAPFs and the final list would be submitted to DoT;
- ii. The sites getting covered in the normal plans of DoT would be deleted from the list and BSNL would submit the estimate for final list of sites to CRPF.
- iii. CAPFs would submit the proposal for the sites to be implemented by BSNL to CRPF, the coordinating agency; and
- iv. CRPF, in consultation with other CAPFs, was also required to submit proposal for funding for the sites being constructed exclusively for para-military forces.

In accordance with the above decisions, BSNL NE-I Circle (Meghalaya, Mizoram and Tripura states) and NE-II Circle (Nagaland, Manipur and Arunachal Pradesh states) submitted (May 2015) the Detailed Project Report (DPRs) to the BSNL Corporate Office. The DPRs covered the surveyed 144 sites and 122 sites for NE-I and NE-II circles respectively and estimated costs were ₹ 315.83 crore and ₹ 226.33 crore respectively. Subsequently, BSNL Corporate Office submitted (March 2016) a consolidated DPR to DoT for 1683 CAPF sites including those of the North Eastern BSNL Circles (Himachal Pradesh, NE-I, NE-II, Uttarakhand, Jammu & Kashmir, West Bengal, Punjab, Jharkhand, Bihar, Gujarat, Uttar Pradesh (East), Rajasthan, Assam, Chhattisgarh and Maharashtra Circles) at a total cost of ₹ 2899 crore. In a reply to the Audit Query on the progress made on the DPR, BSNL intimated that no further communication had been received from DoT as of July 2018.

In this regard, the following observations are made:

- i. The status of number of towers border-wise in North East region as on 31 March 2014 and 31 March 2018 is given in the table below:-

Table 7
Details of Number of Towers in Border areas of North Eastern Region
(within 10 km range of International Border)

Border	State (border length, km)	As on 31.03.2014	As on 31.03.2018	Backbone Media	Remarks
Indo-Myanmar	Nagaland (215km)	0	0		There was no tower within 10 km range of the International Border.
	Arunachal Pradesh (520km)	4	4	OFC(1) VSAT(3)	One Tower at Panchao remained down for last eight months.

Border	State (border length, km)	As on 31.03.2014	As on 31.03.2018	Backbone Media	Remarks
	Manipur (398km)	3	4	OFC	
	Mizoram (510km)	3	3	MW	
Indo-Bangladesh	Mizoram (180km)	2	3	MW(2) /VSAT(1)	
	Tripura (856km)	124	188	MW(72) OFC (116)	

As can be seen from the table above, Nagaland does not have a single tower within 10 Km range of 215 Km long international border with Myanmar while the tower density was 130 Km/tower in Arunachal Pradesh, 99.5 Km /tower in Manipur and 170 Km/tower in Mizoram. Map views of Indo-Myanmar border for Arunachal Pradesh, Mizoram and Manipur are depicted in Annexure VI. MHA had also pointed out (November 2016) that due to inadequate cellular coverage in the region, there was discontentment amongst the general public and also spill-over signals from Myanmar Telephone Service Providers were being utilised in the region. This posed threat to national security/economy.

- ii. MHA proposed (November 2016) to DoT for creation of communication infrastructure in the form of towers in the border areas with the funds available under USOF. However, DoT replied (July 2018) in response to audit observation that DoT/USOF does not propose to fund the provision of mobile services in border and naxal affected areas.

Thus, though MHA initiated the proposal for improving telecom services in border areas of North Eastern Region as early as 2014, there was virtually no progress resulting in spill-over signals from neighboring countries being used by the civilians posing threat to national security/economy.

4.1.6 Quality of Service QoS- (Mean Time To Repair)

Mean time to Repair (MTTR) is the sum of duration of each repair time in hours for all the fault incidences in a quarter divided by total number of fault incidences in a quarter. As per Telecom Regulatory Authority of India (TRAI) notification of March 2009, Mean Time To Repair (MTTR) was stipulated as “less than or equal to eight hours”. Audit observed that the MTTR was higher than the bench mark in Assam, NE-I, ETR Circles and Sikkim SSA during the years from 2014-15 to 2016-17 as detailed in Table below:

Table-8

Details of OFC Faults in a year and MTTR for the year

Year	Circle/SSA	Number of OFC Faults/ Cuts in a year	Yearly fault duration (in Hours)	MTTR for the year (in Hours)
2014-15	Sikkim (Gangtok)	365	6309	17.29
	NE-II	413	8389	20.31
2015-16	Assam	1624	38887	23.95
	NE-II	254	19307	76.01
	ETR	4132	37213	9.00
	Sikkim (Gangtok)	351	4110	11.71
2016-17	Assam	1717	28367	16.52
	NE-I	662	12991	19.63
	NE-II	286	16701	58.40
	ETR	4354	43803	10.06

(Source: Transmission fault reports)

Ministry replied (March 2018) that MTTR in NER improved from 19 hours in 2014-15 to 15.5 hours in 2015-16 and further to 14.5 hours in 2016-17. The higher MTTR was attributed by BSNL to extensive road widening works and culvert construction by Government agencies which resulted in increased OF cable faults, difficult terrain conditions resulting in the timeline of 8 hours becoming not possible to achieve, frequent landslides in rainy season causing delay in restoration of OFC faults and lower staff strength.

While the constraints stated above are noted, Audit contends that BSNL has to take necessary precautions to ensure that OFC is not damaged during the construction and also should have a time bound plan to restore the fault. Though the MTTR has improved to 14.5 hours, it is still above the benchmark of 8 hours and BSNL has to initiate steps/plan of action for achieving the same.

Conclusion

BSNL failed in implementing Comprehensive Telecom Development Plan (CTDP) for NER approved by the Cabinet in September 2014. This was because of failure of the major tenders under CTDP as given below:

- Tender relating to Survey, Planning, Supply, Installation, Testing, Commissioning, Integration with existing core network and Operations & Maintenance for five years of 2G GSM Network along with VSAT, HUB & radio backhaul to provide coverage in uncovered villages at an estimated project cost of ₹ 1460 crore in April 2016.
- Tender relating to laying of UG cable, cable ducts, etc. issued by CGM Telecom Stores, Kolkata in February 2015 and the tender for procurement of DWDM equipment floated by BSNL Corporate office in February 2015.


Thus, due to failure of the above two major tenders the objective of CTDP i.e. rollout for 2G coverage in uncovered areas of NER and OFC Ring connectivity along with augmentation of transmission media was yet to be achieved.

Regional Trunk Planning Committee (RTPC) approved (April 2008 and June 2014) 116 OFC routes for rehabilitation work in Assam, NE-I and NE-II Circles. The works were to be executed by North East Task Force (NETF), Guwahati. The progress of work was 10 *per cent* in Assam and nil in NE-I and NE-II as on date and the delays ranged between 3 to 10 years. Due to poor progress of rehabilitation OFC work in the region, BSNL hired media mostly from M/s Oil India Ltd and M/s Power Grid Corporation of India Ltd (PGCIL).

Nagaland does not have a single tower within 10 Km range of 215 Km long international border with Myanmar while the tower density was 130 Km/tower in Arunachal Pradesh, 99.5 Km /tower in Manipur and 170 Km/tower in Mizoram. Further, although MHA had proposed to DoT for creation of communication infrastructure in the form of towers in the border areas with the funds available under USOF, DoT stated that DoT/USOF did not propose to fund the provision of mobile services in border and naxal affected areas. Thus, eventhough MHA initiated the proposal for improving telecom services in border areas of North Eastern Region as early as 2014, there was virtually no progress resulting in spill-over signals from neighboring countries being used by the civilians posing threat to national security/economy.

Mean time to Repair (MTTR) is the sum of duration of each repair time in hours for all the fault incidences in a quarter divided by total number of fault incidences in a quarter. MTTR was higher than the bench mark of “less than or equal to eight hours” fixed by Telecom Regulatory Authority of India (TRAI) in Assam, NE-I, ETR Circles and Sikkim SSA during the years from 2014-15 to 2016-17.

New Delhi
Dated : 27 September 2018


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Countersigned

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Dated : 28 September 2018


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