GOVERNMENT OF INDIA MINISTRY OF COMMUNICATIONS DEPARTMENT OF TELECOMMUNICATIONS

LOK SABHA UNSTARRED QUESTION NO.669 TO BE ANSWERED ON 6TH FEBRUARY, 2019

BSNL SERVICES

†669. SHRI RAVINDRA KUMAR PANDEY:

Will the Minister of COMMUNICATIONS be pleased to state:

- (a) whether the condition of mobile, landline telephone and internet services of Bharat Sanchar Nigam Limited in rural, remote and hilly areas of different States is poor and unsatisfactory and if so, the details thereof;
- (b) the details of quality benchmarks and services made available actually;
- (c) the State-wise details of most affected districts in terms of poor service and network;
- (d) the remedial measures taken by the Government to bring improvement in all these services;
- (e) the State-wise details of proposed base tower stations to be established in less accessible areas;
- (f) whether a large number of base tower stations in rural and remote areas are not functioning and there is no adequate power back up due to lack of diesel or due to theft of allocated diesel to electric generator; and
- (g) if so, the details thereof and the corrective steps taken by the Government to improve this condition?

ANSWER

THE MINISTER OF STATE (IC) OF THE MINISTRY OF COMMUNICATIONS & MINISTER OF STATE IN THE MINISTRY OF RAILWAYS (SHRI MANOJ SINHA)

(a) to (c) Telecom Regulatory Authority of India (TRAI) monitors the performance of all service providers including Bharat Sanchar Nigam Limited (BSNL) against the benchmark for various Quality of Service (QoS) parameters laid down by TRAI by way of QoS regulations issued from time to time, through Quarterly Performance Monitoring Reports (PMRs) submitted by service providers for the service area as a whole.

As per PMR for the quarter ending September 2018, for Basic Wireline and Broadband Services, BSNL is meeting the benchmarks for all the parameters in all Licensed Service Areas (LSAs).

As per PMR for the quarter ending September 2018, for Cellular Mobile Telephone Services, BSNL is meeting the benchmarks for all the parameters in all the

service areas, except the parameters for assessing call drop viz "Network QoS DCR Spatial distribution measure or DCR Network_ $Q_{SD}(90,90)$ (benchmark 2%)", and "Network QoS DCR temporal distribution measure or DCR Network_ $Q_{TD}(97,90)$ (benchmark \leq 3%)", in West Bengal Service area and "Point of Interconnection (POI) Congestion (No. of POIs is not meeting the benchmark) (Average over a period of quarter) (benchmark \leq 0.5%)", in Rajasthan service area only.

Details of QoS benchmarks and performance of BSNL is at Annexure-I.

- (d) Steps taken by Department of Telecommunications, BSNL and TRAI to further improve the services of BSNL are at **Annexure-II.**
- (e) to (g) Service area wise details of proposed Base Transceiver Stations (BTSs) of BSNL to be installed in less accessible areas is at **Annexure-III.**

BSNL has reported that its BTSs in rural and remote areas are functioning properly and no case of improper functioning of BTS due to lack of diesel or theft of allocated diesel has come to notice.

Annexure-I

Network Related Parameters Policy Network Related Parameters P						Perf	ormance	Monitorina	Report on 0	Quality of Ser	vice of B	SNL for c	uarter end	ing. Septem	ber. 2018				
Network Arailability Connection Establishy Connection Maintanance (Retainability) Political Plants Connection Maint																lity Paran	neters		
Secondary Sec										POI		M				Respor the cus	nse time to stomer for		
Second Practice Second Pr	Name of Service Area	Accumula-ted down-time (not service) (%age)	Worst affected BSs due to down-time (%age)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable(within licensee's own network)	SDCCH/ Paging Channel Congestion/ RRC Congestion (%age)		Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	Network QoS DCR Temporal Distribution Measure [Network_ QTD(97,90)]	Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality	Interconnection (POI) Congestion (No. POIs not meeting the benchmark) Averaged over a period of quarter)		and billing credibility - pre	Resolution of billing/charging complaints		Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints		Percentage of calls answered by the operators (voice to voice) within 90 seconds	requests for Termination / Closure of complied within 7 days	Time taken for refund of deposits after closures
Pradesh 0.92 1.17 98.15 0.63 1.36 1.85 1.96 99.42 0 0.00 100.00 100.00 100.00 97.00 98.00 100.00 100.00 Assam 1.97 1.94 98.18 0.82 1.82 1.69 2.71 96.80 0 0.01 0.00 100.00 100.00 97.00 98.57 100.00 100.00 Bihar 1.73 1.83 95.66 0.39 0.50 1.97 2.87 97.15 0 0.04 0.00 99.35 100.00 100.00 98.69 100.00 100.00 Chennai 0.29 1.19 98.40 0.39 1.62 1.87 2.38 97.18 0 0.00 99.00 100.00 100.00 98.69 100.00 100.00 Gujarat 1.46 1.26 97.59 0.20 0.61 1.88 2.41 100.00 0 0.01 0.00 100.00 100.00 100.00		≤ 2%	≤ 2%		≤1%	≤ 2%	≤ 2%	≤ 3%	≥ 95%	≤ 0.5%			within 4	within 6	week of resolu- tion of comp-	≥ 95%	≥ 95%	100% within 7	within 60
Assam 1.97 1.94 98.18 0.82 1.82 1.69 2.71 96.80 0 0.01 0.00 100.00 100.00 97.00 98.57 100.00 100.00 Bihar 1.73 1.83 95.66 0.39 0.50 1.97 2.87 97.15 0 0.04 0.00 99.35 100.00 100.00 98.00 98.69 100.00 100.00 Chennai 0.29 1.19 98.40 0.39 1.62 1.87 2.38 97.18 0 0.00 0.00 99.00 100.00 100.00 95.28 100.00 100.00 Gujarat 1.46 1.26 97.59 0.20 0.61 1.88 2.41 100.00 0 0.01 0.00 100.00 100.00 97.00 98.36 100.00 100.00 Haryana 0.59 0.16 98.73 0.16 0.35 1.87 1.89 97.79 0 0.01 0.00 100.00 100.00 100.00 99.99 100.00 100.00 Himachal Pradesh 1.92 1.93 98.58 0.78 0.92 1.94 2.10 95.54 0 0.01 0.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 Kashmir 1.11 1.95 98.80 0.60 0.90 1.93 2.94 96.70 0 0.01 0.00 100.00 100.00 100.00 100.00 99.00 100.00 99.00 100.00 100.00 Karnataka 1.32 1.83 98.12 0.34 0.76 1.98 2.97 97.12 0 0.00 0.01 0.00 99.00 100.00 100.00 97.00 98.00 98.20 100.00 100.00 Kerala 0.76 1.44 98.64 0.39 1.03 1.79 2.04 99.61 0 0.01 0.00 99.00 100.00 100.00 97.00 96.78 100.00 100.00		0.02	1 17	09.15	0.63	1 26	1 95	1.06	00.42	0	0.00	0.00	100.00	100.00	100.00	07.00	08.00	100.00	100.00
Bihar 1.73 1.83 95.66 0.39 0.50 1.97 2.87 97.15 0 0.04 0.00 99.35 100.00 100.00 98.69 100.00 100.00 Chennai 0.29 1.19 98.40 0.39 1.62 1.87 2.38 97.18 0 0.00 99.00 100.00 100.00 100.00 95.28 100.00 100.00 Gujarat 1.46 1.26 97.59 0.20 0.61 1.88 2.41 100.00 0 0.01 0.00 100.00 100.00 97.00 98.36 100.00 100.00 Haryana 0.59 0.16 98.73 0.16 0.35 1.87 1.89 97.79 0 0.01 0.00 100.00																			
Chennai 0.29 1.19 98.40 0.39 1.62 1.87 2.38 97.18 0 0.00 0.00 99.00 100.00 100.00 100.00 95.28 100.00 100.00 100.00 Gujarat 1.46 1.26 97.59 0.20 0.61 1.88 2.41 100.00 0 0.01 0.00 100.00 100.00 97.00 98.36 100.00 100.00 Haryana 0.59 0.16 98.73 0.16 0.35 1.87 1.89 97.79 0 0.01 0.00 100.00 100.00 100.00 99.99 100.00 100.00 Himachal Pradesh 1.92 1.93 98.58 0.78 0.92 1.94 2.10 95.54 0 0.01 0.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 <td></td>																			
Gujarat 1.46 1.26 97.59 0.20 0.61 1.88 2.41 100.00 0 0.01 0.00 100.00 100.00 100.00 97.00 98.36 100.00 100.00 Haryana 0.59 0.16 98.73 0.16 0.35 1.87 1.89 97.79 0 0.01 0.00 100.00 100.00 100.00 99.99 100.00 100.00 Himachal Pradesh 1.92 1.93 98.58 0.78 0.92 1.94 2.10 95.54 0 0.01 0.00 100.	Chennai	1																	
Haryana 0.59 0.16 98.73 0.16 0.35 1.87 1.89 97.79 0 0.01 0.00 100.00 100.00 100.00 100.00 99.99 100.00 100.00 Himachal Pradesh 1.92 1.93 98.58 0.78 0.92 1.94 2.10 95.54 0 0.01 0.00 100	Gujarat	1.46		97.59	0.20				100.00				100.00	100.00	100.00		98.36		100.00
Pradesh 1.92 1.93 98.58 0.78 0.92 1.94 2.10 95.54 0 0.01 0.00 100.0	Haryana					0.35	1.87			0	0.01	0.00						100.00	
Kashmir 1.11 1.95 98.80 0.60 0.90 1.93 2.94 96.70 0 0.01 0.00 100.00 100.00 100.00 100.00 99.00 100.00 100.00 100.00 99.00 100.00<	Pradesh	1.92	1.93	98.58	0.78	0.92	1.94	2.10	95.54	0	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Karnataka 1.32 1.83 98.12 0.34 0.76 1.98 2.97 97.12 0 0.00 0.00 99.76 100.00 100.00 98.20 100.00 100.00 Kerala 0.76 1.44 98.64 0.39 1.03 1.79 2.04 99.61 0 0.01 0.00 99.00 100.00 100.00 97.00 96.78 100.00 100.00		1.11	1.95	98.80	0.60	0.90	1.93	2.94	96.70	0	0.01	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00
		1.32	1.83	98.12	0.34		1.98	2.97	97.12		0.00		99.76	100.00	100.00	98.00	98.20	100.00	100.00
Kolkata 1.07 1.48 99.02 0.55 0.50 1.77 1.92 97.76 0 0.01 0.02 98.78 100.00 100.00 95.00 95.03 100.00 100.00	Kerala	0.76	1.44	98.64	0.39	1.03	1.79	2.04	99.61	0	0.01	0.00	99.00	100.00	100.00	97.00	96.78	100.00	100.00
(Source: TRAI)			1.48	99.02	0.55	0.50	1.77	1.92	97.76	0	0.01	0.02	98.78	100.00	100.00	95.00	95.03	100.00	100.00

					Perf	ormance l	Monitoring	Report on (Quality of Ser	vice of B	SNL for c	quarter end	ing, Septem	ber, 2018				
		Performance Monitoring Report on Quality of Service of BSNL for quarter ending, September, 2018 Network Related Parameters Customer Service Quarter Ork Connection Establishment Connection Maintenance									lity Paran	neters						
	Netw Availal			on Establis cessibility)			ection Main (Retainabili		POI		M	etering and	billing		the cus	nse time to stomer for istance	Termin closure o	
Name of Service Area	BS Accumula-ted down-time (not available for service) (%age)	Worst affected BSs due to down-time (%age)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network)	SDCCH/ Paging Channel Congestion/ RRC Congestion (%age)	TCH, RAB and E-RAB Congestion (%age)	Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	Network QoS DCR Temporal Distribution Measure [Network_ QTD(97,90)]	Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality	Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter)	Metering and billing credibility - post paid	Metering and billing credibility - pre paid		Resolution of billing/charging complaints Period of applying credit/ waiver/ adjustment to		Accessibility of call centre/ customer care	Percentage of calls answered by the operators (voice to voice) within 90 seconds	%age requests for Termination / Closure of service complied within 7 days	Time taken for refund of deposits after closures
	≤ 2%	≤ 2%	≥ 95%	≤ 1%	≤ 2%	≤ 2%	≤ 3%	≥ 95%	≤ 0.5%	≤ 0.1%	≤ 0.1%	98% within 4 weeks	100% within 6 weeks	within 1 week of resolu- tion of comp- laint	≥ 95%	≥ 95%	100% within 7 days	100% within 60 days
Madhya Pradesh	1.67	1.89	97.46	0.52	1.05	1.20	2.93	97.01	0	0.02	0.02	99.91	100.00	100.00	98.50	98.53	100.00	100.00
Maharashtra	1.31	1.91	97.65	0.75	1.32	1.90	2.49	95.61	0	0.01	0.01	100.00	100.00	100.00	100.00	99.00	100.00	100.00
North East	1.78	1.94	97.39	0.77	1.79	1.72	2.42	97.71	0	0.03	0.03	99.50	100.00	100.00	98.50	96.67	100.00	100.00
Odisha	1.52	1.98	98.55	0.92	1.45	1.94	2.15	97.84	0	0.02	0.00	100.00	100.00	100.00	99.00	99.87	100.00	100.00
Punjab	0.40	1.80	98.61	0.29	0.28	1.78	2.02	98.20	0	0.04	0.00	100.00	100.00	100.00	100.00	99.99	100.00	100.00
Rajasthan	1.22	1.85	98.46	0.73	1.54	1.70	2.16	98.30	1	0.03	0.03	100.00	100.00	100.00	98.00	100.00	100.00	100.00
Tamil Nadu	0.56	1.79	98.09	0.14	0.34	1.92	2.43	97.69	0	0.00	0.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00
Uttar Pradesh – East	1.67	1.71	97.82	0.88	1.46	1.66	2.04	96.15	0	0.09	0.08	98.70	100.00	100.00	99.00	98.46	100.00	100.00
Uttar Pradesh -																		
West	1.69	1.87	98.22	0.52	1.29	1.79	2.36	96.43	0	0.01	0.00	100.00	100.00	100.00	100.00	96.70	100.00	100.00
West Bengal (Source: T	0.50	1.00	97.62	0.81	1.58	3.09	3.67	96.01	0	0.01	0.04	99.50	100.00	100.00	98.50	99.53	100.00	100.00

Name of Service Area	Faults incidenc es (No. of faults/		Fault Re	epair		Rent Rebate	Mean Time to Repair (MTTR)	POI		N	Metering and	l Billing		Response time to the customer for Assistance		of s	ion / Closure service
	Subs./ month)	% of faults repaired by next working day	% of faults repaired within 5 days	% of faults repaired within 5 days % of faults repaired by next working day % of faults repaired within 7 days				Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark	Metering and Billingcredibility - post paid	Metering and billing credibility - pre paid	Resolution of billing/	Resolution of billing/ charging/ validity complaints		Accessibility of call centre/ customer care	Percentage of calls answered by the operators (voice to voice) within 90 seconds	%age requests for Termination / Closure of service complied within 7 days	Time taken for refund of deposits after closures
									Benchn								
	≤7	For urban areas by next working day: ≥85%	For urban areas: ≥ 100%	For rural and hilly areas: ≥ 75%	For rural and hilly areas: ≥ 100%		≤ 10 Hrs	≤0.5%	≤0.1%	≤0.1%	98% within 4 weeks	100% within 6 weeks	1 week of resolution of complaint	≥95%	≥95%	100% within 7 days	100% within 60 days
Andman& Nicobar	6.00	85.00%	100.00%	85.00%	100%	35	7.00	0.00	0.00%	0.00%	98.00%	100.00%	100.00%	98.96%	100.00%	100.00%	100.00%
Andhra Pradesh	4.00	99.00%	100.00%	96.00%	100%	202	5.00	0.00	0.01%	0.00%	100.00%	100.00%	100.00%	97.81%	97.65%	100.00%	100.00%
Assam	3.00	95.00%	100.00%	93.00%	100%	313	5.00	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	99.34%	100.00%	100.00%	100.00%
Bihar	4.00	93.00%	100.00%	92.00%	100%	0	5.00	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	99.36%	100.00%	100.00%	100.00%
Chahttisgarh	4.00	97.00%	100.00%	97.00%	100%	529	6.00	0.00	0.01%	0.00%	99.00%	100.00%	100.00%	97.31%	97.27%	100.00%	100.00%
Chennai	5.00	92.00%	100.00%	92.00%	100%	291	7.00	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.76%	98.76%	100.00%	100.00%
Gujarat	5.00	96.00%	100.00%	94.00%	100%	167	5.00	0.00	0.02%	0.00%	100.00%	100.00%	100.00%	97.36%	97.19%	100.00%	100.00%
Himachal Pradesh	6.00	88.00%	100.00%	93.00%	100%	116	6.00	0.00	0.03%	0.00%	98.27%	100.00%	100.00%	95.94%	100.00%	NA	100.00%
Haryana	5.00	95.00%	100.00%	93.00%	100%	285	7.00	0.00	0.09%	0.00%	100.00%	100.00%	100.00%	96.74%	100.00%	100.00%	100.00%
Jammu & Kashmir	5.00	95.00%	100.00%	94.00%	100%	5	7.00	0.00	0.01%	0.00%	98.00%	100.00%	100.00%	95.41%	100.00%	100.00%	100.00%
Jharkhand	4.00	99.00%	100.00%	97.00%	100%	707	5.00	0.00	0.08%	0.00%	98.00%	100.00%	100.00%	99.49%	99.67%	100.00%	100.00%
Kerala	5.00	93.00%	100.00%	93.00%	100%	7669	6.00	0.00	0.03%	0.00%	99.82%	100.00%	100.00%	96.55%	96.52%	100.00%	100.00%
Kolakata	7.00	91.00%	100.00%	NA	NA	392	8.00	0.00	0.02%	0.00%	98.17%	100.00%	100.00%	98.17%	100.00%	100.00%	100.00%
Karnataka	4.00	97.00%	100.00%	96.00%	100%	3552	6.00	0.00	0.09%	0.00%	98.00%	100.00%	100.00%	97.66%	97.68%	100.00%	100.00%

Name of Service Area	Faults incidenc		E 11 D			Rent Rebate	Mean Time to	DOI							se time to	Terminati	ion / Closure
	es (No. of faults/ 100		Fault Ro	epair			Repair (MTTR)	POI		Ŋ	Metering and Billing				omer for stance	of service	
	Subs./ month)	% of faults repaired by next working day % of faults repaired within 5 days % of faults repaired by next working day % of faults repaired within 7 days				Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark	Metering and Billingcredibility - post paid	Metering and billing credibility - pre paid	Resolution of billing/	Resolution of billing/ charging/ validity complaints		Accessibility of call centre/ customer care	Percentage of calls answered by the operators (voice to voice) within 90 seconds	%age requests for Termination / Closure of service complied within 7 days	Time taken for refund of deposits after closures		
	-77		F	I =			2 40 Hz-	-0.F0/	Benchn		I 000/	4000/	4	>050/	>050/	4000/	4000/
	≤7	For urban areas by next working day: ≥85%	For urban areas: ≥ 100%	For rural and hilly areas: ≥ 75%	For rural and hilly areas: ≥ 100%		≤ 10 Hrs	≤0.5%	≤0.1%	≤0.1%	98% within 4 weeks	100% within 6 weeks	1 week of resolution of complaint	≥95%	≥95%	100% within 7 days	100% within 60 days
Maharashtra	6.00	91.00%	100.00%	85.00%	100%	923	7.00	0.00	0.01%	0.00%	100.00%	100.00%	100.00%	96.50%	96.48%	100.00%	100.00%
Madhya Pradesh	5.00	88.00%	100.00%	85.00%	100%	279	4.00	0.00	0.03%	0.00%	100.00%	100.00%	100.00%	96.73%	96.70%	100.00%	100.00%
North East-I	5.00	92.00%	100.00%	94.00%	100%	28	7.00	0.00	0.03%	0.00%	98.00%	100.00%	100.00%	97.84%	99.67%	100.00%	100.00%
North East-II	2.00	92.00%	100.00%	99.00%	100%	297	5.00	0.00	0.01%	0.00%	100.00%	100.00%	100.00%	98.51%	99.67%	100.00%	100.00%
Odisha	6.00	94.00%	100.00%	89.00%	100%	240	5.00	0.00	0.08%	0.00%	99.00%	100.00%	100.00%	98.42%	100.00%	100.00%	100.00%
Punjab	5.00	94.00%	100.00%	87.00%	100%	170	6.00	0.00	0.01%	0.00%	98.00%	100.00%	100.00%	96.13%	100.00%	100.00%	100.00%
Rajasthan	5.00	96.00%	100.00%	97.00%	100%	590	7.00	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	95.92%	100.00%	100.00%	100.00%
Tamil Nadu	3.00	94.00%	100.00%	92.00%	100%	2487	7.00	0.00	0.09%	0.00%	100.00%	100.00%	100.00%	98.32%	98.31%	100.00%	100.00%
Uttar Pradesh-E	4.00	89.00%	100.00%	93.00%	100%	491	5.00	0.00	0.05%	0.00%	100.00%	100.00%	100.00%	96.02%	100.00%	100.00%	100.00%
Uttar Pradesh -W	6.00	93.00%	100.00%	95.00%	100%	361	5.00	0.00	0.04%	0.00%	100.00%	100.00%	100.00%	95.92%	100.00%	100.00%	100.00%
Uttarakhand	5.00	93.00%	100.00%	96.00%	100%	178	5.00	0.00	0.00%	0.00%	98.00%	100.00%	100.00%	96.92%	100.00%	100.00%	100.00%
West Bengal	5.00	91.00%	100.00%	91.00%	100%	2168	4.00	0.00	0.01%	0.00%	100.00%	100.00%	100.00%	98.38%	99.67%	100.00%	100.00%

Performance Monitoring Report on Quality of Service of Service Providers providing broadband (wireline) service for Quarter Ending September 2018

Service area	Service Provision ing	Faults	Repair		Billing P	erformanc	е	to the 0	nse Time Customer sistance	Ban	dwidth utili	isation/throu	ighput (Service availabil ity /uptime	Packe t Loss		ork latency (fo oadband acc	
	%age of connect- ions provided within 15 days of registrati on of demand	% of faults repaired by next working day (>90%)	% of faults repaired within 3 working day	Rent Rebate	%age of bills disputed	%age of billing complaints resolved within 4 weeks	%age of cases to whom refund of deposits is made within 60 days of closures	by operator	%age of calls answered by operator (Voice to voice) within 90 sec	links having Bandwidth utilisation >90%	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	during peak hours (TCBH) (Enclose MRTG) <90%	Broadband Connection Speed available (download) from ISP node to user		Packet loss (for wired broadban d access) in %age	User reference point at POP/ISP Gateway node to Internatio nal gateway (IGSP/NI XI	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)
	100%	>90%	=>99%	in nos.	<2%	100% within 4 weeks	100% within 60 days	>60%	>80%	0	0	<90%	>80%	>98%	<1%	<120 ms	<350 ms	<800 ms
All India (except Delhi & Mumbai)	100.0	93.91%	99.72%	4748	0.08%	100.00%	100.00%	98.18%	98.80%	NA	0	45.20%	91.34%	99.67%	0.01%	15	176	NA

<u>Detail of projects assigned to BSNL by DoT to further improve the facility being given to its subscribers:</u>

- 1. Project for providing mobile connectivity in 2199 identified locations in Left Wing Extremism (LWE) affected areas.
- 2. Implementation of comprehensive telecom development plan for Andaman and Nicobar Islands and Lakshadweep Islands through augmentation of satellite connectivity/bandwidth.
- 3. Execution of BharatNet Project.
- Comprehensive Telecom Development Plan for the North-Eastern Region for provision of mobile services in uncovered villages in Arunachal Pradesh and two districts of Assam.
- 5. Implementation of transmission media plan for North Eastern Region.
- 6. Submarine Optical Fibre Project for providing connectivity to the Andaman and Nicobar Islands.
- 7. Setting up of 25000 Wi-Fi Hotspots at Rural Telephone Exchanges.

Steps taken by BSNL:

- 1. BSNL is augmenting its mobile network progressively so as to enhance coverage, capacity and to further improve the Quality of Service. BSNL is also optimizing its network continuously for its performance.
- 2. Focus has been given to continuous drive test and optimization of the network. Quality of mobile services of BSNL is comparable to other telecom service providers of the country.
- 3. BSNL continuously surveys for the low signal area and take corrective measures.
- 4. Mechanism has been introduced in order to monitor day-to-day call drop status in BSNL on PAN INDIA basis. In case any deviation in call drop is observed, immediate remedial action is taken to smoothen the same.
- 5. Round the clock Toll free compliant booking mechanism. A stringent monitoring procedure is being adopted for prompt and timely clearance of customer complaints through exclusive section at all level of organization.
- 6. Provision of ring system for exchanges for redundancy in connectivity.
- 7. Since the Fixed land line faults mainly occur due to damage of UG cable during road works, all circles/field units closely coordinate with the local bodies, PWD, water authority and NHAI authorities. In addition, regular patrolling of important cable routes is done to prevent cable thefts/cable damages.
- 8. Rehabilitation of outdoor network is under process to reduce the landline faults.
- 9. The exchanges failure due to OFC faults and Local cable breakdown is attended quickly.

Steps taken by TRAI to improve the quality of service:

- 1. Close monitoring of performance of service providers, against the benchmarks for various Quality of Service parameters laid down by TRAI, through periodic reports from service providers.
- 2. Follow up action with service providers for improving quality of service.
- 3. Audit and Assessment of Quality of Service through independent agencies.
- 4. Publication of results of Audit & Assessment of Quality of Service, including for Call Drop parameters on TRAI website namely www.trai.gov.in for information of stakeholders, forcing the service providers to improve its service.
- 5. TRAI regularly undertakes the drive tests of mobile networks in select cities, highways and railway routs to assess the Quality of Service and coverage around the areas covered in the drive test routes. The results of Drive tests are shared with the service providers and publish on for TRAI website namely www.trai.gov.in for information of stakeholders, forcing the service providers to improve its service.
- 6. TRAI is already implementing its plan for undertaking operator assisted drive tests in all the Long Distance Charging Areas (LDCA) of the country under the supervision of TRAI's appointed independent agency and officers of TRAI to give an indication of the coverage, voice quality and call drop issues in the various parts of the country so that the service providers could take necessary action to address the problems in those areas.
- 7. Imposition of financial disincentives for non-compliance with the benchmarks for Quality of Service parameters.

Annexure-III

BTS Planned under Phase VIII.4 mobile network expansion project (New+Swap+Redeploy)

Circle/Service Area	2G	3G	4G
Andaman & Nicobar	57	68	40
Andhra Pradesh	768	1226	500
Assam	566	660	284
Bihar	0	222	323
Chhattisgarh	1554	1148	226
Chennai	430	845	200
Gujarat	2462	4405	1050
Haryana	540	916	170
Himachal Pradesh	241	322	74
Jammu & Kashmir	320	438	108
Jharkhand	314	432	148
Karnataka	747	2192	434
Kerala	1048	2043	705
Kolkata	150	150	100
Madhya Pradesh	2420	2190	130
Maharashtra	3885	6128	1184
North East-I	34	250	286
North East-II	138	176	141
Odisha	419	717	253
Punjab	906	1686	362
Rajasthan	1707	2397	0
Tamil Nadu	1515	2855	771
Telangana	416	686	409
Uttar Pradesh (East)	1850	2179	310
Uttar Pradesh (West)	687	827	270
Uttarakhand	176	301	56
West Bengal	874	1620	230
Total	24224	37079	8764
