

**GOVERNMENT OF INDIA  
MINISTRY OF COMMUNICATIONS  
DEPARTMENT OF TELECOMMUNICATIONS**

**LOK SABHA  
UNSTARRED QUESTION NO.4220  
TO BE ANSWERED ON 21<sup>ST</sup> MARCH, 2018**

**TELECOMMUNICATION INFRASTRUCTURE IN KERALA**

4220. DR. P.K. BIJU:

Will the Minister of COMMUNICATIONS be pleased to state:

- (a) the details of the progress of various ongoing projects of the Government for better telecommunication infrastructure in Kerala, district-wise;
- (b) the reasons for inadequate pace of implementation of said projects in certain districts of the State;
- (c) the estimate of livelihood opportunities made available through new communications infrastructure projects implemented in the State of Kerala after June, 2014; and
- (d) the amount spent on communications-related projects implemented in Kerala during the last three years, year-wise?

ANSWER

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

- (a) The details of the progress of various ongoing projects for better telecommunication infrastructure in Kerala, district-wise is enclosed at **Annexure-I**.
- (b) There is no delay in implementation of projects. Further, Mobile services, NGN projects, OFC projects and Wi-Fi projects are being implemented in all districts of Kerala.
- (c) Under Bharat Net project, about 52479 Mandays employment has been made available. In addition, these projects also generate indirect employment, opening up livelihood opportunities for citizens.
- (d) The details of the amount spent on communications-related projects implemented in Kerala during the last three years are enclosed at **Annexure-II**.

(a) The details of the project under Universal Service Obligation Fund in Kerala State is as under:

**BharatNet Project:** BharatNet project is being implemented in a phased manner to create network to connect all the Gram Panchayats (approx. 2.5 lakh) by broadband in the country including Kerala. This project is under implementation and the infrastructure created will be a national asset, accessible on a non-discriminatory basis to the Service Providers.

In Kerala, BharatNet has been implemented by BSNL and all the Gram Panchayats (GPs) have been provided broadband connectivity under this project. As on 11.03.2018, by laying a total length of 830 km Optical Fibre Cable (OFC) 1,129 GPs (including Block Headquarters) have been made Service Ready. The District-wise details are given as under:

**District-wise status of BharatNet in Kerala**

S. No.	District Name	No of GPs*	No of GPs Service Ready*
1	ALAPPUZHA	85	85
2	KOZHIKODE	87	87
3	WAYANAD	29	29
4	KASARGOD	44	44
5	KANNUR	92	92
6	IDUKKI	60	60
7	ERNAKULAM	98	98
8	KOLLAM	81	81
9	KOTTAYAM	84	84
10	MALAPPURAM	115	115
11	PALAKKAD	104	104
12	PATHANAMTHITTA	62	62
13	THRISSUR	104	104
14	THIRUVANANTPURAM	84	84
	<b>KERALA TOTAL</b>	<b>1129</b>	<b>1129</b>

\*includes Block Headquarters

**BSNL**

(b) The various BSNL projects are in progress in Kerala Circle. The details of district wise progress are furnished below.

### **i. BSNL Projects of Mobile Services**

The Phase VIII.4 GSM project is in progress in Kerala Circle where BSNL has planned to add approximately 150 2G, 1342 3G and 651 4G BTSs. District-wise breakup is as given below.

District	PhaseVIII.4 Site Plan**		
	2G	3G	4G
Alappuzha	5	64	0
Ernakulam	15	106	3
Idukki	2	73	82
Kannur	10	140	1
Kasaragod	6	79	55
Kollam	11	99	47
Kottayam	13	129	37
Kozhikode	14	85	0
Malappuram	11	120	73
Palakkad	15	137	41
Pathanamthitta	13	97	0
Thiruvananthapuram	17	94	96
Thrissur	14	119	80
Wayanad	4	0	136
Total	150	1342	651*

\*Approximately 330count is 3G replacement by 4G.

\*\*The overall plan may change based on the availability of spectrum.

### **(ii) NGN Projects**

- (a) NGN C5 project Phase-III – In this project it is proposed to replace 707 TDM switches with NGN equipment.
- (b) CDOT MAXNG Project – In this project it is proposed to upgrade 474 CDOT MAX switches to CDOT MAX NG switches.

The district wise plan for conversion under NGN C5 & MAXNG projects are given below:

Sl. No.	District/SSA	NGN C5 Project –Ph III (No. of lines)	CDOT MAXNG Project (no. of lines)	Sl. No.	District/SSA	NGN C5 Project –Ph III(No. of lines)	CDOT MAXNG Project (no. of lines)
1	Trivandrum	125600	31215	7	Thrissur	189440	27632
2	Kollam	73888	35993	8	Palakkad	26048	36492
3	Pathanamthitta	22720	36457	9	Malappuram	141088	0
4	Alappuzha	141088	29412	10	Calicut & Wayanad	102144	26290
5	Kottayam	64000	33310	11	Kannur & Kasaragode	194336	70618
6	Ernakulam & Idukki	150464	105038				

**(iii) NOFN Project completed in Kerala Circle**

Name of the SSA	No of Blocks	No of GramaPanchayats / Block office	Service ready
KOTTAYAM	11	84	84
KOLLAM	11	81	81
KANNUR & KASARAGODE	17	136	136
ERNAKULAM & IDUKKI	22	159	159
ALAPPUZHA	12	85	85
PALAKKAD	13	104	104
PATHANAMTHITTA	8	62	62
THIRUVANANTHAPURAM	11	84	84
THRISSUR	16	104	104
KOZHIKODE & WAYANAD	16	116	116
MALAPPURAM	15	115	115
Total	152	1130	1130

**(IV) On going OFC Projects**

(a) **Converged Packet Access Network (CPAN) Project:** BSNL Transport network was designed and deployed to carry basically TDM traffic. In the present scenario, as all new network elements are generating IP traffic BSNL planned to introduce Packet Transport Network elements based on MPLS-TP for the reliable and efficient transportation of traffic. 2238Nos of Converged Packet Access Network (CPAN )equipments are allotted this year for Kerala Telecom Circle, to upgrade the aggregation network. Kerala Circle has planned to install the equipments in the following business areas and the project is in progress.

CPAN equipments				
District/SSA	A1	A2	B1	B2
Alappuzha	143	2	31	10
Calicut &Wayanad	160	2	30	15
Kannur &Kasaragode	210	6	16	20
Ernakulam&Idukki	280	14	79	76
Kottayam	62	2	36	8
Malappuram	125	2	42	8
Palakkad	131	2	25	4
Pathanamthitta	55	2	18	4
Kollam	95	2	18	5
Trichur	150	6	20	16
Trivandrum	230	4	50	22
Total	1641	44	365	188

(According to the capacity CPAN equipments are named A1, A2, B1& B2).

**(b). Laying of OFC:-**

450kms of 24F and 615kms of 48F OFC has also planned for laying in the following business areas.

Business Area	24F OFC in kms	48F OFC in kms
Alappuzha	22	32
Calicut &Wayanad	57	34
Kannur &Kasaragode	14	94
Ernakulam&Idukki	86	174
Kottayam	36	-
Malappuram	35	40
Palakkad	57	72
Pathanamthitta	28	24
Kollam	33	56
Trichur	68	44
Trivandrum	14	45
Total	450	615

**V. WiFi Project**

1. Public WIFI 4G services under USOF is planned in 1070 rural exchanges in Kerala Circle with backhaul bandwidth of 2mbps & with 1 access point which is having a download limit of 4GB per device per month. Out of which already commissioned locations 139. Work in progress 311 locations. Remaining will be completed on receipt of the WIFI equipment. Cost of the project for Kerala Circle for WIFI PH I: 9.63 Crores. Cost of the project for Kerala for WIFI PH II:6.13 Crores.

SSA	Already commissioned under MDO	Already commissioned under USOF	Work is in progress
	WIFI PH –I Project		WIFI PH II Project
ALP	11	13	22
CLT	24	15	30
CNN	44	11	42
ENK	22	15	37
KTM	2	15	28
MRX	17	12	25
PGT	14	10	29
PTA	3	11	24
QLN	3	13	23
TCR	11	14	24
TVM	21	10	27
Total	172	139	311

**VI .Broadband projects**

Augmentation of broadband core network has been completed in various locations in Kerala by adding various new network elements & new MNG-PAN (MPLS-TP\_ based Next

Generation transport Network- Packet) Access Network) for improving the browsing speed of broadband customers. Total cost involved for installing new MNG PAN equipment , PTN switches and augmentation of BNGs is 38.30Crores. New MNG PAN expansion is also planned at Kozhikode, Kannur, Palakkad, Trichur& Trivandrum for which the cost expected is RS.3.64 crores.

MPLS( Multi protocol label Switching) backbone also expanded during the year 2016-17 by adding new MNGT (MPLS based Next Generation Transport) PE routers in all SSA Headquarters in addition to the already existing 10 Routers. One IGW( Internet Gateway router) chain is also installed and commissioned at Ernakulam co-located with the MNGT Core at Ernakulam for managing Data traffic. Total cost involved in this work pertaining to Kerala Circle is 5.57 Crores.

## **VII. Wi-Fi Services**

Public Free WIFI services in 2000 locations including rural areas are being provided by Kerala State IT Mission, Kerala State Govt. This work is entrusted to BSNL Kerala and the work is in progress.

<b>S. No.</b>	<b>State</b>	<b>District</b>	<b>Total Sites planned</b>	<b>Total Live sites</b>
1	Kerala	Ernakulam	161	112
2	Kerala	Trivandrum	120	19
3	Kerala	Alleppey	61	35
4	Kerala	Kottayam	118	73
5	Kerala	Thrissur	91	59
6	Kerala	Pathanamthitta	40	22
7	Kerala	Pallakad	61	20
8	Kerala	Kozhikode	43	17
9	Kerala	Kannur	72	12
10	Kerala	Kasargod	53	20
11	Kerala	Idukki	22	2
12	Kerala	Kollam	73	21
13	Kerala	Wayanad	32	22
14	Kerala	Malapuram	53	10
		<b>Total</b>	<b>1000</b>	<b>444</b>

Year wise funds disbursed / spent under the various schemes of USOF in Kerala		
<b>Rs. in crores</b>		
<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>
14.94	21.72	32.17

The amount spent on communications-related projects implemented in Kerala during last three years Year-wise?

<b>S. No</b>	<b>Name of the project</b>	<b>2014-15 (Crores)</b>	<b>2015-16 (Crores)</b>	<b>2016-17 (Crores)</b>
1.	Phase VII	17.863	-	-
2.	Phase VII+	-	0.8	210.71
3.	CDOT MAX NG	-	13.14	-
4.	NOFN	-	46.61	-
5.	NGN	-	41.41	-
6.	OFC project (material cost only)	0.84	0.42	9.07
7.	Addition of Transmission equipments	2.30	10.40	7.81
8.	Wi- Fi Project	0	0	9.63
9.	Broadband core network expansion	2.688	0.787	32.317
10.	BNG(Broadband Network Gateway) upgradation	2.0356	0.482	0
11.	MPLS backbone expansion	-	5.57	-
	<b>Total</b>	<b>25.7266</b>	<b>119.619</b>	<b>269.537</b>

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