

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

**LOK SABHA
UNSTARRED QUESTION NO. 3655
TO BE ANSWERED ON 17TH MARCH, 2021**

DELAY IN PAYMENT FROM MTNL TO DDA

EMF Radiations From Mobile Towers

3655. SHRIMATI APARAJITA SARANGI:

Will the Minister of COMMUNICATIONS be pleased to state:

- (a) whether the number of mobile towers has increased during the last three years and if so, the details thereof, State/UT-wise;
- (b) whether these towers have resulted in an increase in emissions therefrom and if so, the details thereof and the steps taken by the Government in this regard;
- (c) the upper limit of Electro Magnetic Field (EMF) radiations from mobile towers fixed by the Government and various international organisations;
- (d) whether the Government has conducted any surveys to see if the exposure level of EMF radiation need to be revised; and
- (e) if so, the details and the outcome thereof?

ANSWER

**MINISTER OF STATE FOR COMMUNICATIONS, EDUCATION AND
ELECTRONICS & INFORMATION TECHNOLOGY
(SHRI SANJAY DHOTRE)**

- (a) Yes, Sir. The telecom licenses are issued Licensed Service Area (LSA) wise and accordingly the information about number of mobile towers is maintained LSA-wise. Accordingly, the LSA-wise details of growth in number of mobile towers during the last three year is attached as **Annexure**.
- (b) No, Sir. There is no report in regard to increase in emission due to increase in number of towers. Even with the increase in towers, the total emission at any place accessible to public shall be within the prescribed norms of Department of Telecom as given in Para (c) below.
- (c) The norms for exposure limit for the Radio Frequency Field (Base Station Emissions) has been fixed 10 times more stringent than the safe limits prescribed by International Commission on Non Ionizing Radiation Protection (ICNIRP) and recommended by World Health Organization (WHO). The present emission norms as laid down by the Government on 30-12-2011 for Base Transceiver Stations (BTSS) installed at various mobile towers in India are as follows:

Frequency Range	E-Field Strength (Volt/Meter)	H-Field Strength (Amp/Meter)	Power Density (Watt/Sq.Meter)
400 MHz to 2000 MHz	$0.434 f^{1/2}$	$0.0011 f^{1/2}$	$f / 2000$
2 GHz to 300 GHz	19.29	0.05	1

(f is frequency in MHz)

(d) & (e) To review the exposure limit, in 2014, a Committee was setup at the behest of orders of High Court of Allahabad, Lucknow bench. The Committee comprised of members from Indian Institutes of Technology (IITs) Kharagpur, Kanpur, Delhi, Roorkee, Bombay and from other scientific institutions of the country including Indian Council of Medical Research (ICMR) and All India Institute of Medical Science (AIIMS) Delhi. Based on the report of the Committee and after due consideration of the human health concerns on account of EMF radiation being raised in public and the Report of the Committee, the Government decided in February 2014 that the present prescribed precautionary EMF safe exposure limits (as above) are adequate and need no further change.

The LSA-wise details of growth in number of mobile towers during the last three year:

LSA-wise Number of Towers added				
SN	LSA	Towers added during FY 2017-18	Tower added during FY 2018-19	Towers added during FY 2019-20
1	Andhra Pradesh	2257	5617	3195
2	Assam	482	1597	1672
3	Bihar	3430	5105	6663
4	Delhi	3017	3790	2336
5	Gujarat	1087	5030	4232
6	Himachal Pradesh	46	1486	686
7	Haryana	597	2068	788
8	Jammu & Kashmir	440	1392	403
9	Karnataka	597	6112	3963
10	Kolkata	1776	2102	1608
11	Kerala	197	1139	943
12	Mumbai	688	1051	712
13	Maharashtra	646	4632	5627
14	Madhya Pradesh	1253	8902	4013
15	North East	332	1077	1574
16	Odisha	651	1918	2030
17	Punjab	841	2040	599
18	Rajasthan	1016	4518	3023
19	Tamilnadu	-663	3954	3356
20	UP (East)	-24	2613	5751
21	UP (West)	1893	3348	2319
22	West Bengal	1048	3025	2997
Grand Total		21607	72525	58483
