

presently. Additional 52 towers and 01 (One) Telephone Exchange are likely to be installed by BSNL in financial year 2015-16.

(d) A scheme has been planned to extend financial support from Universal Service Obligation Fund (USOF) for provisioning of mobile communication services in inhabited uncovered villages of the Border States including Punjab which are not having mobile coverage. Detailed Project Report (DPR) has been prepared for the purpose.

**Electro-magnetic radiation from cell phone towers**

1337. PROF. M.V. RAJEEV GOWDA: Will the Minister of COMMUNICATIONS AND INFORMATION TECHNOLOGY be pleased to state:

(a) whether the Ministry plans to conduct indigenous research regarding a possible link between electro-magnetic field from mobile towers and cancer, if so, the details thereof;

(b) whether the Ministry is planning to frame a policy to prescribe regulations for mobile towers in consultations with telecom experts, as well as activists and consumers concerned about mobile-tower radiation and its effects; and

(c) if so, the details thereof?

THE MINISTER OF COMMUNICATIONS AND INFORMATION TECHNOLOGY (SHRI RAVI SHANKAR PRASAD): (a) Sir, in the area of biological effects of non-ionizing radiation, World Health Organization (WHO) has said that approximately 25,000 articles have been published over the past 30 years. Based on in-depth review of the scientific literature, WHO has concluded that “current evidence does not confirm the existence of any health consequences from exposure to low level electro-magnetic fields”. Further, in September 2013, WHO in online question and answers have mentioned that “Studies to date provide no indication that environmental exposure to RF fields, such as from base stations, increases the risk of cancer or any other disease.”

A joint initiative has been launched by Science and Engineering Research Board (SERB), a statutory body under Department of Science & Technology (DST) and Department of Telecommunications (DoT), to study possible impact of electro-magnetic field (EMF) radiation exposure from mobile towers and handsets in the non-ionizing band (300MHZ to 3 GHZ) on life. i.e. Humans, Living Organisms, Flora & Fauna and Environment. DST has identified and initiated nineteen research studies in 2015, including those from All India Institutes of Medical Sciences (AIIMS) and Indian Institutes of Technology (IITs). These research will examine the effects of EMF radiation in other

areas as on reproductive dysfunctions, male infertility, neurological disorders (cognitive behaviour, sleep related disorders, depression etc.), otorhinolaryngology (ENT) disorders, Psychosocial implications, DNA damage and repair, EMF effects in blood cell/tissues in animal and plant systems.

(b) and (c) Department of Telecommunication (DoT), since 2008, has been monitoring global developments and considering views of various stakeholders has already taken necessary steps and adopted stricter norms for safety from EMF radiation that are emitted from mobile towers. Government of India has been taking due precautions and necessary actions in respect of EMF radiation emitted from mobile towers by issuing various guidelines and norms taking into account the international standards/norms.

Presently the limits for EMF radiations from Base Station in India are 1/10th of the existing limits prescribed by International Commission on Non Ionizing Radiation Protection (ICNIRP) and recommended by World Health Organisation (WHO) and are placed below:

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

(f = frequency in MHz)

In order to ensure compliance to the prescribed stricter precautionary norms of EMF radiation from mobile towers, the extensive audit of self-certificates being submitted by telecom service providers and base transceiver station (BTS) sites is carried out by Telecom Enforcement Resource & Monitoring (TERM) field units of DoT. In case, any BTS site is found to violate the prescribed EMF norms, actions are taken to put a penalty of ₹ 10 lakh per BTS per incidence including closing of BTS site, if the violation persists. Additionally, the BTS sites against which there are public complaints are also tested by TERM Cell.

#### **‘Wi-Fi for All’ Scheme**

1338. PROF. M. V. RAJEEV GOWDA: Will the Minister of COMMUNICATIONS AND INFORMATION TECHNOLOGY be pleased to state:

(a) whether Government is seeking private partnership for better implementation of ‘Wi-Fi for all’ scheme making it available to remote and rural areas;