

**GOVERNMENT OF INDIA  
COMMUNICATIONS AND INFORMATION TECHNOLOGY  
LOK SABHA**

UNSTARRED QUESTION NO:226

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IMPACTS OF EMF RADIATION

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**Will the Minister of COMMUNICATIONS AND INFORMATION TECHNOLOGY be pleased to state:**

- (a) whether cell tower radiation level is very high in the country in comparison to the international standards;
- (b) if so, the details thereof;
- (c) whether the Government has constituted a committee to study the possible impacts of Electro Magnetic Field (EMF) radiation emitted by the mobile towers and handsets;
- (d) if so, the details thereof; and
- (e) the remedial steps taken/being taken by the Government to control high level of radiation from mobile towers and handsets?

**Answer**

THE MINISTER OF COMMUNICATIONS AND INFORMATION TECHNOLOGY (SHRI RAVI SHANKAR PRASAD)

(a) & (b) No Madam, Department of Telecommunication (DoT) has prescribed stricter precautionary limits for Electro Magnetic Field (EMF) radiation from mobile phone towers.

The present prescribed limits in India for EMF radiations from Base Station is 1/10th of the existing International Standards prescribed by International Commission on Non Ionizing Radiation Protection (ICNIRP) and are as follows:

Frequency Range	Power Density (Watt/Sq.Meter)	
	International Standard	Standard adopted in India
	(Prescribed by ICNIRP)	
400MHz to 2000MHz	f/200	f/2000
2GHz to 300GHz	10	1
	(f is frequency in MHz)	

(c) & (d) Yes, based on media reports and public concerns an Inter-Ministerial Committee (IMC) consisting of officers from DoT, Indian Council of Medical Research (Ministry of Health), Department of Biotechnology and Ministry of Environment and Forest was constituted on 24.08.2010 to examine the effect of EMF Radiation from base stations and mobile phones. The Inter-Ministerial Committee (IMC) in its report, has examined the environmental and health related concerns and has indicated that most of the laboratory studies were unable to find a direct link between exposure to radio frequency radiation and health; and the scientific studies as yet have not been able to confirm a cause and effect relationship between radio frequency radiation and health. The effect of emission from cell phone towers on human health is not known yet with certainty.

Also, in a Writ Petition filed in Hon'ble High Court Allahabad, Lucknow bench, the Hon'ble Court vide its order dated 10.01.2012 constituted a committee including Members from 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 who submitted its Report on 17-01-2014. 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 has decided in February 2014 that the present prescribed precautionary EMF safe exposure limits are adequate and need no further change at this stage.

(e) Department of Telecommunication (DoT), since 2008, has been monitoring global developments and has already taken necessary steps and adopted stricter norms for safety from EMF radiation that are emitted from mobile towers and mobile handsets. Government of India has been taking due precautions and necessary actions in respect of EMF radiation emitted from mobile towers and mobile handsets by issuing various guidelines and norms taking into account the international standards/norms prescribed by International Commission on Non Ionizing Radiation Protection (ICNIRP) as recommended by World Health Organisation.

As mentioned above, Government of India adopted the ICNIRP guidelines in the year 2008 for basic restriction and limiting reference levels of Electromagnetic radiation from Mobile towers and inserted the additional clause in the Access Service Licenses vide its amendment letter dated 4/11/2008. Based on the recommendations by Inter-Ministerial Committee (IMC), these norms for exposure limit for the Radio Frequency Field (Base Station Emissions) have been further reduced to 1/10th of the existing limits prescribed by International Commission on Non Ionizing Radiation Protection (ICNIRP).

In order to ensure compliance to the prescribed stricter precautionary norms of EMF radiation from mobile tower, the extensive audit of compliance 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. This is regularly done by TERM units for the purpose of limiting the EMF radiation exposure and keeping general public areas in the vicinity of towers safe. In case, any BTS site is found to violate the prescribed EMF norms, actions are taken to put a penalty of Rs. 10 lakh per BTS per incidence including closing of BTS site as per the prescribed procedure. Additionally, the BTS sites against which there are public complaints are also tested by TERM Cell.

Based on the limits provided by ICNIRP, DOT, in the year 2008, notified for compliance of Mobile Handsets being manufactured in India as well as the handsets being imported to conform to SAR limit of 2 W/kg (averaged over a mass of 10 gm tissue) localised for head and trunk in the frequency range of 10 MHz to 10 GHz. Based on the recommendations by IMC, SAR level for Mobile Handset has been further revised. From 01.09.2013, the mobile handsets with revised SAR value of 1.6 Watt/Kg averaged over a mass of 1 gram human tissue are only permitted to be manufactured or imported in India for domestic market. A laboratory has been set-up in the Telecommunication Engineering Centre (TEC) for testing of SAR value of mobile handsets imported/manufactured in India.