IN THE HIGH COURT OF GUJARAT AT AHMEDABAD

SPECIAL CIVIL APPLICATION NO. 5548 of 2014
With
CIVIL APPLICATION NO. 5597 of 2014
In
CIVIL APPLICATION NO. 5159 of 2014
With
CIVIL APPLICATION NO. 5159 of 2014
In
SPECIAL CIVIL APPLICATION NO. 5548 of 2014

FOR APPROVAL AND SIGNATURE:

HONOURABLE THE CHIEF JUSTICE MR. BHASKAR BHATTACHARYA
and
HONOURABLE MR.JUSTICE J.B.PARDIWALA

==========

1	Whether Reporters of Local Papers may be allowed to see the judgment ?	Yes
2	To be referred to the Reporter or not ?	Yes
3	Whether their Lordships wish to see the fair copy of the judgment ?	No
4	Whether this case involves a substantial question of law as to the interpretation of the Constitution of India, 1950 or any order made thereunder ?	No
5	Whether it is to be circulated to the civil judge ?	No

==========

MUKTIPARK CO OPERATIVE SOCIETY - PART - IV....Petitioner(s)

Versus

AHMEDABAD MUNICIPAL CORPORATION & 3....Respondent(s)

==========

Appearance:
MS DIMPLE A THAKER, ADVOCATE for the Petitioner(s) No. 1 - 1.15
MS. NIYATI K JUTHANI, ADVOCATE for the Petitioner(s) No. 1 - 1.15
MR VANDAN BAXI, ASSTT. GOVERNMENT PLEADER for the Respondent(s) No. 3
MR DEEP D VYAS, ADVOCATE for the Respondent(s) No. 1
MR ND GOHIL, ADVOCATE for the Respondent(s) No. 4
MR SHAKEEL A QURESHI, ADVOCATE for the Respondent(s) No. 4
MR MIHIR THAKORE, SR. COUNSEL with MS AMRITA M THAKORE, ADVOCATE for the Respondent(s) No. 2
NOTICE NOT RECD BACK for the Respondent(s) No. 3

==========

CORAM: **HONOURABLE THE CHIEF JUSTICE MR.**

BHASKAR BHATTACHARYA
and
HONOURABLE MR.JUSTICE J.B.PARDIWALA

Date : 05/09/2014

CAV JUDGMENT

(PER : HONOURABLE MR.JUSTICE J.B.PARDIWALA)

By this writ-application in the nature of a public interest litigation, the petitioners have brought to our notice that just adjoining to their residential flats situated near the Sola Railway Crossing, Sola, Ahmedabad, the respondent No.2, Reliance Jio Infocomm Limited, a company engaged in the business of telecommunications, has erected a Base Transceiver Station (BTS), popularly known as "the Wi-Fi Mobile Tower", in violation of the guidelines issued by the respondent No.4, Union of India, which is likely to cause a potential health hazard due to the emission of radio active waves from the said tower.

2. The case made out by the petitioners may be summed up thus:

2.1 The petitioners are residents of Malhar Flats, situated near the Sola Railway Crossing, Sola, Ahmedabad. The residents of the Malhar Residential Flots have formed a Society, known as "the Muktipark Co-operative Society, Part IV", registered under the Gujarat Cooperative Societies Act. The petitioner No.1 is the Chairman of the said Society.

2.2 The respondent Nos. 1, 3 and 4 are "the State", within the meaning of Article 12 of the Constitution of India. The

respondent No.2 is a company registered under the Companies Act, and is engaged in the business of communication.

2.3 There are around 39 flats in the Malhar Residential complex, and approximately 120 individuals are residing in the said flats. The respondent No.2 has illegally erected a Wi-Fi mobile tower approximately two meters close to the residential premises. The Wi-Fi mobile tower is of 4G technology. The respondent No. 2 has erected the said Wi-Fi mobile tower without any permission or sanction or No Objection from the residents of the Malhar flats or the other nearby residents.

2.4 According to the petitioners, the Wi-Fi mobile tower emits electromagnetic waves which in turn causes electromagnetic radiation and it has been scientifically proven that the electromagnetic radiation effects are divided into thermal and non thermal effects; the thermal effects are similar to that of cooking in the microwave oven, whereas non-thermal effects are not well defined but, they are three to four times more harmful than the thermal effects. The inter-ministerial report issued by the respondent No.4 indicates the adverse effects of the radiation emitted by the Wi-Fi mobile towers.

2.5 According to the petitioners, the Wi-Fi mobile towers erected therein would emit higher level of electromagnetic radiations. The photographs annexed with the petition clearly indicates that the Wi-Fi mobile tower is extremely close to the residential premises and the warning signs shown on the said Wi-Fi mobile tower further indicates that it is harmful for the human beings. The warning shown on the tower indicates that the said tower would be emitting non ionizing radiations,

capable of causing cancer.

2.6 The Wi-Fi mobile tower operators divide a region in large number of cells and each cell is divided into number of sectors, the base station is normally configured to transmit different signals into each of those sectors, wherein the majority of the towers are mounted near the residential and office buildings to provide good Wi-Fi mobile phone coverage to the users. Taking into consideration such proposition, it would be an undisputed fact that the Wi-Fi mobile tower located in the vicinity of the petitioner Society would emit radiation round the clock and the said tower would receive ten thousand to one crore times stronger signals than required for the Wi-Fi mobile communication.

2.7 The Wi-Fi mobile tower has been erected just outside the garden of the residential premises, wherein the children from the age group of 3 to 18 years play everyday in the evening. The tower has been erected at such a place that the residents of the building would be exposed to constant radiation.

In such circumstances, the petitioners have prayed for the follow reliefs:-

(A) *Be pleased to issue a writ of mandamus or writ in the nature of mandamus and/or a writ of certiorari or any other appropriate writ, direction or order commanding the respondent authorities to forthwith take action in accordance with law against the tower erected by the respondent No.2 just outside the said premises in question by directing the respondent No.1 to remove the same from said premises since the tower in question is causing severe health hazard to the family of the petitioner and the like;*

(B) *Permanently restrain the respondent No.2 from erecting*

any Wi-Fi mobile tower in a close vicinity of the petitioner, which would cause health hazard due to emission of radiation;

(C) *Be pleased to direct the respondent authorities to not permit use of the tower in question, by sealing the said tower, which is not permissible under the law, and for which no permission has been sought by the respondent No.4 from the respondent authorities;*

(D) *Pending the admission, hearing and final disposal of this petition, be pleased to:-*

i) Direct the respondent authorities to not permit use of the property in question, by sealing the said tower;

ii) Direct the respondent authorities to submit a report to this Court of the action taken by the respondent authorities after the filing of this petition;

iii) Restrain the respondent No.2 from continuing the operation and commencing and usage of the said mobile tower;

iv) Restrain the respondent No.2 from using the said tower unless and until the respondent No.2 has got all the legal permission and sanctions, which are in accordance with the General Development Control Regulation applicable;

E) *Be pleased to grant an ex-parte ad interim relief in terms of prayer (D) (i), (ii), (iii) and (iv) above;*

F) *Be pleased to pass such an order and further orders as may be deemed just and proper in the facts and circumstances of the present case.*

G) *Be pleased to award costs of this petition."*

3. Stance of the respondent No.4, Union of India:

All the allegations levelled in the petition are baseless and not true. The World Health Organization (WHO) in its Fact Sheet No.304, May 2006 on the Electromagnetic Fields and Public Health (Base Stations and Wireless Technologies) has

concluded that considering the very low exposure levels and research results collected till date, no convincing scientific evidence could be gathered to arrive at the conclusion that the weak RF signals from the base stations and wireless networks had any adverse impact on the health of the human beings.

The WHO has recommended in the Fact Sheet No. 304, May 2006 that the National authorities should adopt the international standards to protect their citizens against the adverse levels of RF fields. The International Commission on Non-ionizing Radiation Protection Guidelines of April, 1998 suggests that the epidemiological studies on exposed workers and the general public have shown no major health effects associated with typical exposure environments. The studies have yielded no convincing evidence that the typical exposure levels lead to adverse reproductive outcomes or increases the risk of cancer. The Department of Telecommunications (DoT) vide letter dated 8th April, 2010 directed all the CMTS/UAS licensees for compliance of the reference limits/levels prescribed by the ICNIRP by way of self certification of their Base Transmitting Stations for meeting with the EMF radiation norms.

In such circumstances referred to above, the respondent No.4 has prayed that there being no merit in this petition, the same deserves to be rejected.

4. Stance of the respondent No.1, The Ahmedabad Municipal Corporation:

By filing an affidavit, the respondent-Corporation has

stated that none of the fundamental rights or any accrued legal right of the petitioners could be said to have been violated by any action or inaction on the part of the respondents so as to maintain this petition. The Corporation is governed and administered by the Rules, Policies and Guidelines framed by the Government of India. The licensee company, before installation of the towers, is required to obtain the requisite permission and clearance from the Department of Telecommunications (DoT), and is obliged to follow the conditions and guidelines as prescribed by the authorities. The Telecom Enforcement Resource and Monitoring Cells (referred to as "the TERM Cell") of DoT are constituted for the purpose of vigilance, monitoring and security functions. On failure of any site to meet with the requirements, the authority has been conferred with the powers to impose heavy penalties and even order closure of the sites.

The Urban Housing Department of the State Government issued Resolutions dated 3rd October, 2012 and 22nd December, 2012 respectively for levying of charges and fees for the companies providing Wireless Broad Band Services (4G Telecom Services) installing cables and preparing trench through Horizontal Direct Drilling (HDD) system and erecting of poles in the different cities of State. The resolutions referred to above issued by the State Government have been accepted by the Standing Committee and Board of the Corporation, vide Resolutions dated 10th January, 2013 and 29th January, 2013 respectively. In pursuance thereof, the Corporation has granted the requisite permission for installation of the 4G towers at the respective sites at the

height admeasuring from 25 meters to 30 meters, depending upon the requirements and in conformity with the Rules and Regulations.

The compliance and monitoring of the radiation levels would be taken care of by the technical and specialized agencies of the respondent herein. The permissions granted to the respondent No.2 includes unconditional undertaking to abide with and follow all the rules, regulations and guidelines issued by the Central/State Government and also issued by the DoT, so as to ensure that no radiation/frequency rays are harmful and/or hazardous to human life and inhabitation.

In such circumstances referred to above, the respondent No.1 has prayed that the petition being devoid of any merit, the same may be rejected.

5. Stance of the respondent No.2 - Reliance Jio Infocomm Limited:

The petition is not maintainable as none of the fundamental rights or any other accrued legal rights of the petitioners could be said to have been violated.

In the world of telecommunications, the 4-G is the fourth generation of mobile phone mobile communication technology standards. The 4-G system provides mobile ultra-broadband internet access to laptops, smartphones, and other mobile devices. The conceivable applications of 4G technology include the amended mobile web access, IP telephony, gaming services, high-definition mobile TV, video conferencing, 3D

television, and cloud computing. The 4G technology would bring a radical change in the mobile communication system, education, health, banking industries and business through various equipments and would also make the activities such as the video conferences, e-education etc. very easy. The use of the technology is in public interest and in no manner is detrimental to the interest of the people at large. The respondent No.2 is a Pan India operator with the Broadband Wireless Access (BWA) spectrum across 22 circles capable of offering 4G wireless services. Many operators like the respondent are holding license for operating in more than one circle for offering the 4G wireless service. In Gujarat, apart from the respondent, there are three other operators which have been granted licence for offering the 4G wireless services. The respondent's portfolio of products includes the high speed broadband connectivity, communications, entertainment and cloud services, which would enable the respondent to deliver the integrated digital services across the nation. The respondent herein is the first telecom operator in the country to get the Pan India Unified License i.e. for all 22 service areas across India, which inturn would permit the respondent to offer all the telecom services including voice telephony under a single license. For the purpose of enabling it to provide such services, the respondent is erecting cell poles which are also known as Base Transceiver Stations (BTS). The radio frequency (RF) energy emitted from the cell phones and the cell phone poles is a non-ionizing one like that from the visible light rays, TV broadcasting signals, FM radio, AM radio, cordless phones, power lines etc. The radiation from the BTS is much lower than the TV signal broadcasting and FM/AM radio. The BTS in question is 30 meters in height,

whereas the nearest building i.e. Malhar Flats, which consists of ground plus five floors, is approximately 19 meters in height. The antennae which would be placed on the said BTS tower would be much higher than the said building. According to the DoT Guidelines, the width of the beam of the mobile antennae in the vertical direction is very narrow and therefore, only the antennae at the same height is required to be considered as regards distance between the building and front of antennae.

It has been denied by the respondent that the BTS in question has been illegally erected and without obtaining necessary permission. The BTS tower in question is not situated inside any private premises, but the same is situated on a public road and therefore, no NOC is required from the residents of the nearby area.

In such circumstances referred to above, it has been prayed by the respondent No.2 that the petition being devoid of any merit, the same may be rejected.

Analysis:

6. We have heard Ms. Niyati K. Juthani, the learned counsel appearing on behalf of the petitioners, Mr. Mihir Thakore, the learned Senior Advocate assisted by Ms. Amrita M. Thakore, the learned advocate appearing on behalf of the respondent No.2, Mr. Deep D. Vyas, the learned advocate appearing on behalf of the Ahmedabad Municipal Corporation, Mr. Vandan Baxi, the learned Assistant Government Pleader appearing on behalf of the State Government and Mr. Shakeel A. Kureshi,

the learned advocate appearing on behalf of the Union of India.

7. Having heard the learned counsel appearing for the parties and having gone through the materials on record, the only question that falls for our consideration in this petition is, whether the petitioners are entitled to any of the reliefs as prayed for in the petition.

8. Ordinarily, the court would allow litigation in public interest if it is found :

(i) That the impugned action is violative of any of the rights enshrined in Part III of the Constitution of India or any other legal right and relief is sought for its enforcement;

(ii) That the action complained of is palpably illegal or mala fide and affects the group of persons who are not in a position to protect their own interest on account of poverty, incapacity or ignorance;

(iii) That the person or a group of persons were approaching the Court in public interest for redressal of public injury arising from the breach of public duty or from violation of some provision of the Constitutional law;

(iv) That such person or group of persons is not a busy body or a meddlesome inter-loper and have not approached with *mala fide* intention of vindicating

their personal vengeance or grievance;

(v) That the process of public interest litigation was not being abused by politicians or other busy bodies for political or unrelated objective. Every default on the part of the State or Public Authority being not justiciable in such litigation;

(vi) That the litigation initiated in public interest was such that if not remedied or prevented would weaken the faith of the common man in the institution of the judiciary and the democratic set up of the country;

(vii) That the State action was being tried to be covered under the carpet and intended to be thrown out on technicalities;

(viii) Public interest litigation may be initiated either upon a petition filed or on the basis of a letter or other information received but upon satisfaction that the information laid before the Court was of such a nature which required examination;

(ix) That the person approaching the Court has come with clean hands, clean heart and clean objectives;

That before taking any action in public interest, the Court must be satisfied that its forum was not being misused by any unscrupulous litigant, politicians, busy body or persons or groups with *malafide* objective of either for vindication of their personal grievance or by resorting to black-mailing or

considerations extraneous to public interest.

9. The petition is substantially based on a strong fear that the radio frequency waves emitted from the BTS in question is likely to cause health hazards to the residents of the flats and further that the respondent No.2 has erected the BTS in violation of the guidelines issued by the DoT. It is also the case of the petitioners that the BTS has been erected without any permission or sanction of the residents of the residential premises in question. The petitioners, in support of their case that the BTS would be harmful to the residents of the flats, have relied upon the information downloaded from the Wikipedia (Annexure "C" to the petition), the inter ministerial report issued by the Ministry of Telecommunication and Information Technology (DoT) (Annexure "D" to the petition), and the report of the Expert Group to study the possible impacts of communication towers on Wildlife including birds and bees, issued by the Ministry of Environment and Forest (Annexure "E" to the petition). The petitioners have also relied upon the advisory guidelines issued by the State Government regarding the issue of clearance for installation of the mobile towers, effective from 1st August, 2013, along with the additional guidelines to TERM Cells for auditing the BTS for EMF radiation effective from 1st August, 2013, issued by the DoT.

10. From the materials on record, it appears that the respondent No.2 has been granted Pan India licence across 22 circles for offering the 4G wireless services. In the State of Gujarat, apart from the respondent No.2, three other operators have been granted licence for offering the 4G services. The

entities who have been granted the 4G licences, which includes the respondent No.2, have been granted spectrum in the 2300 MHz band. It also appears from the information available on the website of the Global Mobile Suppliers' Association, that the 4G technology has been commercially launched by 25 operators in 20 countries across the world, where also the spectrum is granted in or around the 2300 MHz band. The details are as under:-

Sr.No	Country	Operator	TDD Frequency
1	Australia	NBN Co	2.3 GHz
2	Australia	Optus	2.3 GHz
3	Bahrain	Menatelcom	3.5 GHz
4	Brazil	On Telecommunications	2.6 GHz
5	Brazil	Sky Brazil Services	2.5 GHz
6	Canada	Sasktel	2.5 GHz
7	Hong Kong	China Mobile Hong Kong	2.3 GHz
8	India	Bharti Airtel	2.3 GHz
9	Indonesia	PT Internet	2.3 GHz
10	Japan	Softbank XGP/LTE TDD	2.6 GHz
11	Nigeria	Spectranet	2.3 GHz
12	Oman	Omantel	2.3 GHz
13	Poland	Aem2	2.6 GHz
14	Russia	Megafon/Moscow	2.6 GHz
15	Russia	MTS/Moscow	2.6 GHz
16	Russia	Vanakh Telecom	2.3 GHz
17	Saudi Arabia	Mobily	2.5 GHz
18	Saudi Arabia	STC	2.3 GHz
19	South Africa	Telkom Mobile	2.3 GHz
20	Spain	COTA Murca 4G	2.6 GHz
21	Sri Lanka	Dialog Axiata	2.3 GHz
22	Sweden	3 Sweden	2.6 GHz
23	Uganda	MTN	2.6 GHz
24	UK	UK Broadband	3.5 GHz
25	USA	Sprint	2.6 GHz

11. It also appears from the materials on record that for ensuring uniform, faster and smoother processing of the applications, for clearance of sites for the purpose of setting up the BTS by entities who have been granted the 4G licence across the cities and towns in Gujarat, the Government of Gujarat has issued a G.R dated 3rd October, 2012, inter-alia giving suitable directions to all the Municipal Corporations/Municipalities/ Urban local authorities in the State of Gujarat and also prescribing the amount to be charged.

12. Pursuant to the aforesaid Resolution issued by the State Government, the respondent No.1 has granted permission in favour of the respondent No.2 dated 15th November, 2013 to set up mobile poles at the specific locations in the city of Ahmedabad. Thus, we do not find any merit in the contention canvassed on behalf of the petitioners that the respondent No.2 has erected the poles without obtaining any requisite permission from the authorities concerned. This fact has been made abundantly clear in the affidavit-in-reply filed on behalf of the respondent No.1, State of Gujarat.

13. It also appears that the BTS with which we are concerned, is 30 meters in height, whereas the height of the flat (Malhar) is about 16 meters. Further, the BTS has been erected outside the compound of Malhar flats.

14. In April, 1998, the International Commission on Non-ionizing Radiation Protection (ICNIRP), after conducting the necessary studies, has prescribed the safe levels of EMF radiation from the base stations. This is evident from the

ICNIRP guidelines produced on record by the respondent No.2 with it's affidavit-in-reply. The Table 5 thereof prescribes the basic restrictions for power density for frequencies between 10 and 300 GHz and the same are 50 W/m^2 for occupational exposure and 10 W/m^2 for the general public. The Table 7 thereof contains the reference levels for general public exposure to time varying electric and magnetic fields (unperturbed rms values). As per this table, if the frequency range is 2 to 300 GHz, the equivalent place wave power density should be 10 W/m^2.

15. In May 2006, the World Health Organisation issued a Fact Sheet, inter alia, making the following observations:-

> *"…recent surveys have shown that RF exposures from base stations range from 0.002% to 2% of the levels of international exposure guidelines, depending on a variety of factors such as proximity to the antennae and the surrounding environment. This is lower or comparable to RF exposures from radio or television broadcast transmitters."*
>
> *"A common concern about base stations and local wireless network antennae rates to the possible long term health effects that whole-body exposure to RF signals may have. To date, the only health effect from RF fields identified in scientific reviews has been related to an increase in body temperature (> 1°C) from exposure at very high field intensity fund only in certain industrial facilities, such as RF heaters. The levels of RF exposure from base stations and wireless networks are so low that the temperature increase are insignificant and do not affect human health."*
>
> *"The strength of RF fields is greatest at its source and diminishes quickly with distance. Access near base station antennae is restricted where RF signals may exceed international exposure limits. Recent surveys have indicated that RF exposures from base stations and wireless technologies in publicly accessible areas (including schools and hospitals) are normally thousands*

of times below international standards."

"Over the past 15 years studies examining a potential relationship between RF transmitters and cancer have been published, these studies have not provided evidence that RF exposure from the transmitters increases the rsik of cancer"

"From all the evidence accumulated so far, no adverse short or long term health effects have been shown to occur from the RF signals produced by base stations"

"International exposure guidelines have been developed to provide protection against established effects from RF fields by the International Commission on Non-Ionizing Radiation Protection (ICNIRP, 1998) and the Institute of Electrical and Electronic Engineers (IEEE, 2005). National authorities should adopt international standards to protect their citizens against adverse levels of RF fields. They should restrict access to areas where exposure limits may be exceeded."

Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects."

16. In the year 2008, the Government of India adopted the restrictions and limits recommended by the aforementioned ICNIRP guidelines. The letter dated 4th November, 2008, issued by the DoT mofifying the terms of the Licence Agreement in that regard has been produced by the Union of India, along with its reply (Annexure R-3). By letter dated 8.4.2010, the DoT directed all the CMS/UAS Licensees to comply with the prescribed reference limits/levels and to issue self certification in that regard in respect of their BTS. It was also directed that the TERM Cells would test upto 10% of new BTS sites randomly at its discretion. Additionally, the BTS sites against which if any public complaints are lodged, then the same would also be tested by the TERM Cell and further if the

site fails to meet with the EMR criterion, a penalty of Rs. 5 lac would be levied per BTS per service provider. Moreover, if the servicer provider fails to meet with the criterion within one month of the report of the TERM Cell, the site would be shut down.

17. Considering the public concerns over the issue, an Inter-Ministerial Committee was constituted in August 2010 to examine the effect of the EMF radiation from the BTS and mobile phones, which, after examining the matter, submitted its Report, *inter alia,* recommending that the RF exposure limits in India may be lowered to 1/10th of the existing level.

18. In a group of writ petitions filed in the Rajasthan High Court, inter alia, seeking directions to the various authorities to formulate a regulatory body in relation to emission of radio frequency and electromagnetic radiations from the mobile towers, seeking directions not to construct the mobile towers at certain places and seeking directions to quash the bye-laws made by the State Government of Rajasthan and the municipalities prohibiting erection of the mobile towers at certain places, the Rajasthan High Court delivered a judgment dated 27.11.2012 upholding the bye-laws/policy decision of the State Government of Rajasthan and, *inter alia,* directing that (i) the mobile towers from hospitals and colleges be removed within 2 months, (ii) that the time prescribed by the State Government for removal of the mobile towers from within vicinity of 500 mt from jail premises be implemented, (iii) that removal of the mobile towers near the ancient monuments be considered by the State Government and the local authorities, (iv) that the mobile towers on playgrounds

may also be looked into, guideline of the DoT in regard to the mobile handsets and the mobile towers be strictly enforced, (v) that the public be educated and made aware of the different mobile handsets and ill-effects thereof, and of the towers, and precautions necessary as per the DoT guidelines, (vi) that the State Governments and the local authorities should take decision on case-wise basis with regard to the installation of towers in densely populated areas in accordance with law and removal of dangerous towers which were not established as per the norms and were erected without permission, (vii) that the Government should consider whether it would be appropriate to change the constitution of the TERM Cells which are the regulatory bodies framed by it, the directions of the DoT and the Inter-Ministerial Report with respect to constant monitoring be implemented and that while granting such permission for the installation of towers, concerned bodies should consider the number of the mobile towers in the area, the effect on the health of the people and various other safeguards.

19. Based on such recommendations of the Inter-Ministerial Committee, the Government of India has now adopted stricter norms for emission from the base stations, being 1/10th of the limits prescribed by ICNIRP. Accordingly, the licence conditions of all the telecom service providers in India were again amended to this effect. The letter dated 26.6.2013 issued by the DoT refers to the amendment made to the Licence Agreements in this regard.

20. The DoT has thereafter issued guidelines effective from 1.8.2013, which, inter alia, reflect the adoption of 1/10th of the

limits prescribed by ICNIRP. The comparative table given in the reply of the respondent no. 2 and also reproduced hereinbelow gives the norms prevalent in India as against those prescribed by the ICNIRP:

Frequency (in Mega Hertz or MHz)	Power Density Limit prescribed by ICNIRP (in Watt/meter^2 or W/m^2)	Power Density Limit prescribed by DoT (in Watt/meter^2 or W/m^2)
900	4.5	0.45
1800	9	0.9
2100 and above	10.5	1

21. With a view to strengthen the monitoring and compliance of safety aspects/provisions in regard to radio frequency emissions from the mobile towers, the DoT has also issued Additional Guidelines with effect from 1.8.2013, wherein the DoT has prescribed the following safe distances:

No. of antenna(e) pointed in the same direction	Building/Structure safe distance from the antenna(e) at the same height (in meters)
1	20
2	35
4	45
6	55

22. In the said additional guidelines, it is specified that the antennae at the same height only are to be counted, as the beam width of the mobile antennae, in the vertical direction, is very narrow. It is also stated that the distance figures in the above table are based on empirical estimation considering that all the antennae are emitting at their maximum RF power of 20 Watts and in the same direction with the same height (a worst case scenario). In practise, the value of safe distance of buildings will depend upon the actual deployment scenarios and mostly, may be far less than depicted above.

23. Thereafter, several faculty members at the IITs and IISc in the area of communications, being concerned about the reports of adverse impact of radio frequency radiation from cellular towers on human health, examined the issue and prepared a Statement on the issue in September 2013 wherein they noted that the DoT had implemented the reduction of emission levels from the mobile towers in the country to 1/10th of the ICNIRP standards and that India thus became one of the 10% countries having the most stringent norms of the EM exposure. They concluded that the recommendations of the DoT were sensible and based on international best practises at this point of time and that they should be strictly implemented. They further recommended creation of a public database where all study reports on the health implication of the EM radiation should be placed and conduction of multiple scientific studies on the subject of health implications of the EM radiation, etc.

24. In its latest advisory on health risk associated with mobile phones and BTS, the World Health Organisation (WHO) has said:

> *" Studies to date provide no indication that environmental exposure to RF (radio-frequency) fields, such as from base stations increases the risk of cancer or any other disease……."*.

25. In a writ petition filed in the Allahabad High Court, a direction was given to the Government of India to constitute a committee of experts to submit a report so that the

Government may take necessary precautions while granting permission for establishment of the mobile towers. Such Committee was formed vide letter dated 20.8.2013, and thereafter, it has submitted its report on 17.1.2014 stating that the DoT has already prescribed stricter precautionary limits for the EMF radiation from the mobile towers and the mobile handsets. After considering the report of the Committee, the DoT has issued an Office Memorandum on 27.2.2014 stating that the presently prescribed limits for the EMF radiation from the base stations in India are one tenth of the internationally prescribed limits and that the same were adequate and need no further change at that stage. It is also decided that in order to make a deterrent effect, the penalty for violation of the prescribed stricter norms from the BTS towers by telecom service providers be increased from Rs. 5 lac to Rs. 10 lac per BTS per incidence per operator with effect from 20.11.2013. The TERM Cells are directed to carry out extensive audit of comprehensive self certificates and site for compliance of EMF radiation safe limits.

26. Recently, the Science and Engineering Research Board, Department of Science and Technology, Government of India has constituted a Committee of experts, *inter alia,* to initiate country wide special scientific studies in the area of engineering and life form risk assessment and to define efficiency and emission norms for communication, etc. The said Committee has received about 150 proposals which would be considered and evaluated.

27. What has really left us baffled is the fact that the radio frequency waves used for mobile phones are not covered

under the definition of "radiation" as given in the Atomic Energy Act, 1962 and the non-ionizing radiations do not have the capability to ionize the matter with which they interact. The Radiation Protection Division (NRPB) of the U.K. Health Protection Agency in the year 2000 has reported that the balance of evidence indicates that there is no general risk to the health of the people living near the base stations on the basis that the exposures are expected to be small fractions of guidelines. The scientific data would indicate that the use of the mobile phone, AM Radio, FM Radio etc. is more harmful to the human beings compared to the power emission from the Base Transceiver Stations and that of the Mobile Towers.

28. A Division Bench of the Kerala High Court in the case of Reliance Infocom Ltd. Vs. Chemanchery Grama Panchayat and ors., reported in AIR 2007 Kerala 33 has observed that the surveys conducted in proximity to the base stations indicated that the public was exposed to extremely low intensity RF fields in the environment and all the evidences indicated that they were unlikely to pose the risk to health.

29. We may quote some of the observations of the Division Bench of the Kerala High Court, as contained in paragraph 5 of the judgment, which has been relied upon by the respondent No.2.

> *5. We have already found that RF exposures from Mobile Base Stations are much less than from radio, FM radio and television transmissions and that the consensus of scientific community is that the radiation from Mobile Phone Base Stations is far too low to produce health hazards if people are kept away from direct access to the antenna and the overall evidence indicates that they are*

unlikely to pose a risk to health. The strength of radio frequency fields in front of the antennae varies with the distance. Persons standing directly in front of the antennae in these high density zones will get higher exposures. We have also found that the height of Mobile Base Station antennae is normally 36 metres and the effect of radio waves depends on the distance from the base stations since the antennae are directed horizontally with a 5 degree downwards tilt. Human studies pertaining to base stations conducted by Santini R et al (2002), Bortkiewicz et al (2004) and Hutter and kundi et at (2006) do not report any quantitative parameters related to health hazards. Therefore it can safely be concluded that the permission granted for installation of Mobile Base Station by the Panchayat would not cause as such any health hazards nor will it affect the fundamental rights guaranteed to citizens under Article 21 of the Constitution. Right to life enshrined under Article 21 includes all those aspects of life which make life meaningful, complex and worth living. Development of technology has its own ill-effects on human beings, but, at times people will have to put up with that at the cost of their advantages. Petitioner and others for installing towers will have necessarily to comply with the statutory provisions contained in Chapter XIX of the Kerala Municipal Building Rules, 1999 which permits construction of telecommunication towers over buildings. Petitioner has submitted that it has already satisfied all those conditions and in such circumstance Panchayat has granted the licence.

30. We are in respectful agreement with the aforenoted observations made by the Division Bench of the Kerala High Court, and propose to follow the same.

31. Before parting with this matter, we deem it necessary to mention that the concerned authorities should, by way of communication through T.V., Radio etc. bring it to the notice of the people at large that there is no reason for them to fear the erection of the Base Transceiver Station, known as the Wi-Fi

Mobile Tower. The reason why we are saying so is that the impression in the mind of a common man is that the Wi-Fi Mobile Towers erected all over the State has the potential to cause health hazard due to the emission of radio active waves from the said tower.

32. In view of the aforesaid discussion, we have reached to the conclusion that the petitioners are not entitled to any of the reliefs as prayed for in the petition. The petition, being devoid of any merit, is accordingly ordered to be rejected. No costs.

33. In view of the order passed in the main petition, the connected Civil Applications have become infructuous and are accordingly, disposed of.

Sd/-

(BHASKAR BHATTACHARYA, C.J.)

Sd/-

(J.B.PARDIWALA, J.)

Mohandas