





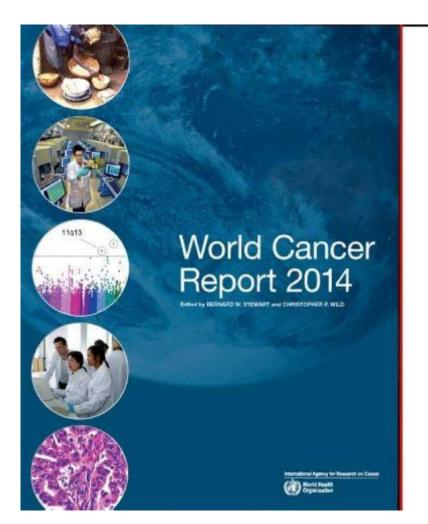
Tubelight
And
Tester
Glow Under
400 kv
hv powerline
DUE TO EMF

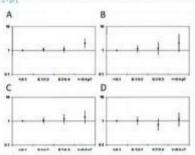






Scanned by CamScanner





and broadcasting. Normal residential and broadcasting. Normalines dential background exposure to extremely low-frequency magnetic fields as usually believe 0.1 yif. A maid traction of request date to active very dose to high-nottage power lines or other sources can have appreciably higher background exposures. Higher background exposures bodar White deciracid devices are used and may also be experienced in perforu ar canegories of work, such as by electricates and exposures for controlled and activities. clairs and electrical engineers. For most people, the highest exposure to salochoquency electromagnetic fields occurs when using mobile call phones because the source of emassice is held close to the head. Nucl lower levels of exposure erise from transmittees, but field strength may escoed if Vim even at points several sistements from high-output television or radio broadcast trans-mitters. The number of sources comcians and electrical engineers. For reithers. The number of sources conticues to increase with further use of the whole electromagnetic frequency spectrum.

Cancervisk
Studies have been conducted in residential sellings by investigating cancer risk in relation to the near-est overheast logs-voltage power lines and the resulting magnetic fields, as well as in constitutions. est overhead top-voltage power ines and the resulting magnetic fields. As well as in occupational settings that involve electrical work. Exploratiological studies have consistently recorded a positive association of extremely low the sasociation of extremely low the child-book arubanents, with an appearancy angreesic fields with child-book arubanents, with an appearancy a low finger rate at a wavering 24-hour explosure levels exceeding 24-hour explosure levels exceeding 19-10-4 of 19-2 at 36 (22-35). However, a causal relationship has not been established one to the total sensitial to his and combounding in the observational studies and levels are levels as the company of the cause supporting evidence form experimental studies and mechanistic data are lacking [25], if a causal amsociation did exist. It is assumed that 4 1-49 of childhood leukanents cases could be attributed by the company magnetic fields [27]. The 1901 IARC Maxingraph on extremely

low-frequer by magnetic fields classified them as possibly carcinoganic to themans (Joseph 28). The evidence for other types of malignancy was evaluated to be inadequate. Other reviews come to similar conclusions lates (22.28). Recarch states have not shown an effect of exposure to extremely be the evidence of the exposure to extremely be evidenced to exposure to extremely be effected to exposure to extremely low-frequency magnetic fields on survival after childhood leusaemia (29). In the 2001 IARC Monograph

evaluation, extremely low-frequen-cy electric fields and static electric and magnetic fields were consid-ered not classifiable as to their car-

and reagnetic fields were consistmed not classifishe as to their carcenoperiorly to humans (Group 3).
Since 2001, there have been few
shades relevant to these evaluations and none suppest a basis for
ne-evaluation, as recently reflected
by an expert panel of the European
Contrassan (2M).
Radiothequatry electromagnetic fields have been classified
as possibly carcinoperior to humans (Group 20) (see Yn IARC
annunbernett that made wives!)
(Fig. 2.8.6), Case-confrol studies
on mobile phone use and cancer
have reported in creased insk of gicora and especially electrical studies
on mobile phone use and cancer
have reported in creased insk of gicora and association with brain tomour risk. Such an increased risk
was a speciated from a series of inhermisted case--control studies in
a 10% increased risk for giorna
and also for account in sucreased
and size for account in sucrease
and size for account in sucrease
and size for account in sucrease
observed, restricted to the 10% of
seade who were the heavest users observed, restricted to the 10% of people who were the heaviest users of mobile phones. Several factors, including inaccuracy and evidence of bias in self-reported use, pre-vented causality being established by these studies [21]. Time trends in by these studies (24). Eines territa is gloome inculence beased on Northic court meet and the USA excelor any large increase in incidence attributions in color of the studies to nable phone use, albed with reference to a celalizery about time from initiation of exposure. No esculation was conserved between mobile phone use and other carpors. Several studies on occupational

148

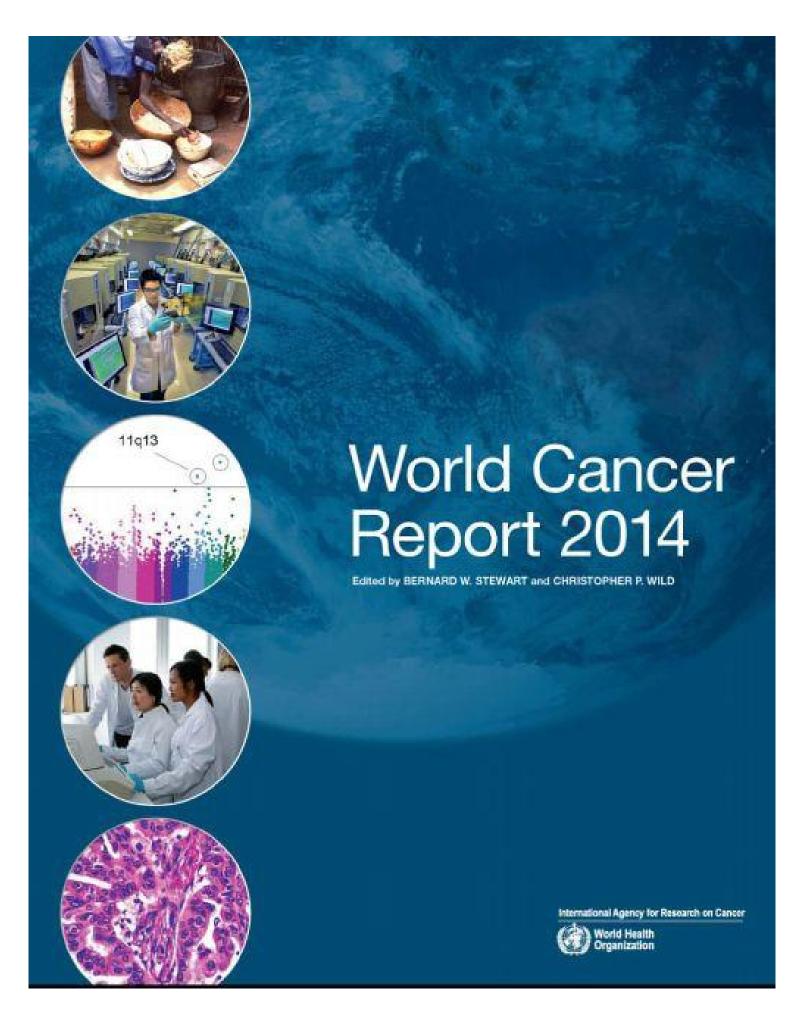
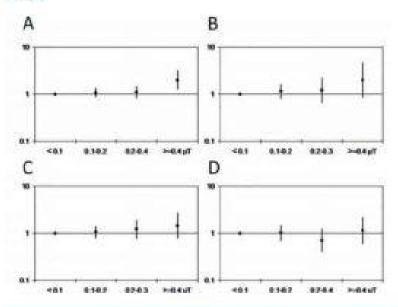


Fig. 2.8.5. Companson of results from pooled analyses of epidemiological studies of residential exposure to extremely low-frequency magnetic fields and the risk of childhood concer. (A) childhood leukaemia [23]; (B,C) childhood leukaemia [24]; excluding (Fi) and including (C) a study from Brazil, and (D) childhood brain tumours [25]. Pooled odds ratios and their 95% confidence intervals (vertical axis) are shown by increasing levels of exposure to extremely low-frequency magnetic fields (reference category < 0.1 µT).



and broadcasting. Normal residential background exposure to extremely low-frequency magnetic fields is usually below 0.1 µT. A small fraction of households located very close. to high-voltage power lines or other sources can have appreciably higher background exposures. Higher but short-term exposures occur when electrical devices are used and may also be experienced in particular categories of work, such as by electricians and electrical engineers. For most people, the highest exposure to radiofrequency electromagnetic fields occurs when using mobile (cell) phones because the source of emission is held close to the head. Much lower levels of exposure arise from transmitters, but field strength may exceed 1 V/m even at points several kilometres from high-output television or radio broadcast transmitters. The number of sources continues to increase with further use of the whole electromagnetic frequency spectrum.

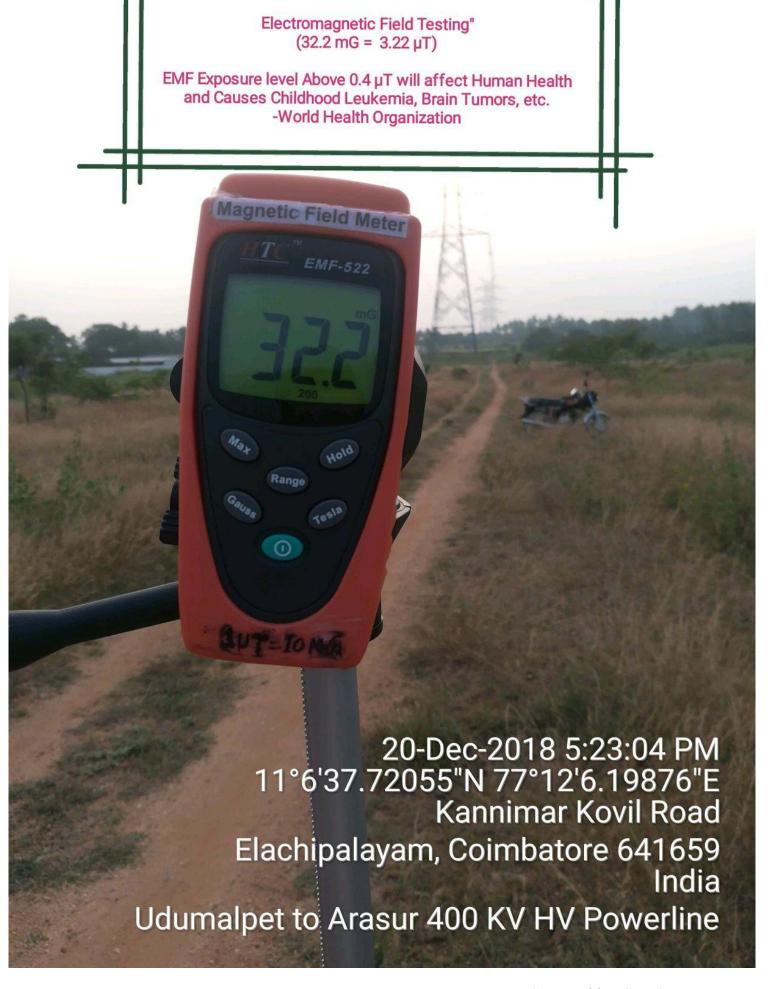
Cancer risk

Studies have been conducted in residential settings by investigating cancer risk in relation to the nearest overhead high-voltage power lines and the resulting magnetic fields, as well as in occupational settings that involve electrical work. Epidemiological studies have consistently recorded a positive association of extremely low-frequency magnetic fields with childhood leukaemia, with an apparently 2-fold higher risk at average 24-hour exposure levels exceeding 0.3-0.4 µT (Fig. 2.8.5) [22-25]. However, a causal relationship has not been established due to the potential for bias and confounding in the observational studies and because supporting evidence from experimental studies and mechanistic data are lacking [26]. If a causal association did exist, it is estimated that < 1-4% of childhood leukaemia cases could be attributable to exposure to extremely lowfrequency magnetic fields [27]. The 2001 IARC Monograph on extremely

low-frequency magnetic fields classified them as possibly carcinogenic to humans (Group 2B); the evidence for other types of malignancy was evaluated to be inadequate. Other reviews came to similar conclusions later [22,28]. Recent studies have not shown an effect of exposure to extremely low-frequency magnetic fields on survival after childhood leukaemia [29].

In the 2001 IARC Monograph evaluation, extremely low-frequency electric fields and static electric and magnetic fields were considered not classifiable as to their carcinogenicity to humans (Group 3). Since 2001, there have been few studies relevant to these evaluations and none suggest a basis for re-evaluation, as recently reflected by an expert panel of the European Commission [28].

Radiofrequency electromagnetic fields have been classified as possibly carcinogenic to humans (Group 2B) (see 'An IARC announcement that made waves") (Fig. 2.8.6). Case-control studies on mobile phone use and cancer have reported increased risks of glioma and acoustic neuroma in heavy. users of mobile phones (30). A large Danish nationwide cohort study of mobile phone subscribers did not reveal any association with brain tumour risk. Such an increased risk was suggested from a series of interrelated case-control studies in 13 countries, Interphone, in which a 40% increased risk for glioma and also for acoustic neuroma was observed, restricted to the 10% of people who were the heaviest users of mobile phones. Several factors. including inaccuracy and evidence of bias in self-reported use, prevented causality being established by these studies [31]. Time trends in glioma incidence based on Nordic countries and the USA exclude any large increase in incidence attributable to mobile phone use, albeit with reference to a relatively short time from initiation of exposure. No association was observed between mobile phone use and other cancers. Several studies on occupational





4/18





DISTRESS CALL

'EMR emission by tower line alarmingly high'

EXPRESS NEWS SERVICE (i) Coimbatore

THE farmers protesting against the installation of High Voltage Direct Current (HVDC) transmission tower lines in their agricultural lands say emission of electromagnetic radiation (EMR) has exceeded the normal level of 2 mG.

Slamming the Power Grid Corporation of India for its contention that the radiation level is within permissible limit and does not pose a risk of harm, the farmers have released a video clip wherein EMR level right under an electric tower line in the district is shown at a high of 28.8 mG.

"According to cancer research studies, EMR above 2 mG is harmful for living things especially human beings that it can cause cancer.



This being the case, a random sample reading taken by us using an electromagnetic field tester under a HVDC tower line, that goes to Arasur sub-station, at

Plans for legal step

Airmunal Young Farmers'
Movement has planned to
take legal recourse against
the HVDC project using the
evidence and the members
said they would not allow its
installation anywhere in the
farm lands in the region.
Meanwhile, officials have
been maintaining that there
is no EMR emission

The electromagnetic field tester indicating 28.8 mG of radiation under the tower line at Elachipalayam in Coimbatore |

Elachipalayam in the outskirts of the city showed it to be 28.8 mG," said S Sathishkumar, a member of Airmunai Young Farmers' Movement. He said the high level of radiation emission from the tower line would definitely affect human beings and animals over a period of time though not immediately, but the officials have been maintaining that there is no EMR emission.

The movement has planned to take legal recourse against the HVDC project using the evidence and the members said they would not allow its installation anywhere in the farm lands in the region.

When contacted, a senior official from the electricity board said, "The EMR emission is taken as one of important factors for living things. However, we need to check the veracity of their claims. As regards the calibration, there are some procedural norms before conducting the test and they have to be considered."

EFFECT OF ELECTROMAGNETIC FIELD ON SOME SELECTED CROP PLANTS

A thesis submitted to

MADURAI KAMARAJ UNIVERSITY

for the Degree of Doctor of Philosophy

By S. SOMASEKARAN



Guide Dr. K. Muthuchelian, D.Sc.,

School of Energy, Environment and Natural Resources

Madurai Kamaraj University

Madurai – 625 021, India.

DECEMBER - 2007

Plate 8. A photograph showing the effect of EMF from 230 KV and 110 KV power lines on Vigna unguiculata.



Control Under 110 KV Under 230 KV



Control Under 110 KV Under 230 KV



ஆலங்குடி அருகே

DOT

23:

5ண் தவி

Sign

VBIT

பலாமரத்தில் ஏறிய விவசாயி மின்சாரம் பாய்ந்து சாவு

ஆலங்குடி, மார்ச் 23: ஆலங்குடி அருகே பலாமரத்தில் பலாப ழம்பறிப்பதற்காகஏறிய போது உயர்மின்னழுத்த கம்பியில் இருந்து மின் சாரம்பாய்ந்துவிவசாயி உயிரிழந்தார்.

புதுக் கோட்டை மாவட்டம் ஆலங்குடி அடுத்த அணவயலை சேர்ந்தவர் தமிழ்செல் வன் (55). விவசாயி. இவர் நேற்று அதேபகுதியில் உள்ள தனது தோட்டத் தில் உள்ள பலாமரத்தில் ஏறி பலாப்பழம் பறிக்க முயன்றார். அப்போது. மரத்தின் அருகேசென்ற உயர் மின்னமுத்த மின் கம்பியில் இருந்து மின் சாரம் பாய்ந்துள்ளது. இதல், மரத்தில் இருந்து தூக்கி வீசப்பட்ட தமிழ் செல்வன் கீழே விழுந் தார். இதில், பலத்த காயமடைந்த தமிழ்செல் வனை அருகே தோட்

டக்கில் வேலை செய்து



 பலாமரத்தில் ஏறிய போது மின் சாரம் பாய்ந்து உயிரிழந்த விவ சாயி தமிழ்செல்வன்.

கொண்டிருந்தவர்கள் பேராவூரணி அரசுமருத் துமனைக்கு கொண்டு சென்றனர். அங்கு தீவிர சிகிச்சை அளிக் கப்பட்டும், சிகிச்சை பலனின்றி தமிழ்செல் வன் உயிரிழந்தார். இதுகுறித்து வடகாடு போலீசார் விசாரணை நடத்தி வருகின்றனர்.

மில் றது நார் ராசு தம் தங் தம் புக் ழ்ப்

0.551

151 35

ஐய

क्षु ह्या

63040

πĿ

(OUT)

M



Scanned by CamScanner