



Tuesday 8th March 2011.

The Department of Environmental Affairs
Minister of Environmental Affairs , Bamo Edith Edna Molewa

cc: The Department of Health;
Attention : Dr Pakishe Aaron Motsoaledi (masukm@health.gov.za)

cc: The Department of Education
Attention : Dr Bonginkosi Emmanuel Nzimande(makwetu.n@dhe.gov.za)
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To the Office of the Minister of Environmental Affairs, Bamo Edith Edna Molewa.

We hereby make use of the extension granted (in terms of NOTICE 46 OF 2011) by the Minister of Environmental Affairs to offer further comment on the draft amendments to the Environmental Impact Assessment Regulations published In Government Notice No. -.1103 of 2010 in *Gazette* No. 33841 on 10 December 2010.

As the Electromagnetic Radiation Research Foundation of South Africa , we strongly object to the removal of the EIA and public participation process for the approval and erection of cellular/broadband/wi-fi base stations and antennae on the following grounds :

HEALTH

As per Section 24 of the Constitution :

“Everyone has the right to an environment, that is not harmful to their health or wellbeing and to have the environment protected through reasonable legislative measures”

There is a burgeoning amount of scientific evidence being provided daily on the dangers and impacts of microwave radiation and other countries have noted this in the introduction of suitable laws to protect their citizens.

By 1971, the US Naval Medical Research Institute had already referenced 2300 research articles listing in excess of 120 illnesses attributed to radio frequency and non-ionising microwave radiation.

The Bioinitiative Report of 2007, where 2000 peer reviewed papers covered the biological effects of microwave/non-ionising radiation advised that WHO and ICNIRP Guidelines were not sufficient and not protecting one’s health.

The papers highlighted effects on gene and protein expression, DNA breaks, genotoxic effects, stress response, effects on neurology and behaviour, brain tumours and acoustic neuromas, childhood cancers such as leukaemia, reduced melatonin production, Alzheimers, skin disorders, strokes, weakened immune system and breast and other cancers. From these studies it was immediately recommended that the public exposure (accumulative) from these masts not exceed

0.6v/m with a recommended indoor level of 0.194v/m. These were considered as urgent amendments to current levels that ICNIRP has as guidelines. Some European countries have adopted these levels already and others have set new reduced levels to help protect their citizens and have adopted the “Precautionary Principle”.

<http://www.bioinitiative.org/report>

European Parliament Documents 2009

The European parliament questioned the WHO's decision-making and advised its 27 member States not to follow the WHO's recommendations but to follow the Bioinitiative Report's recommendations. 522 Votes were recorded in favour of restricting exposure of populations to microwaves and 16 votes were recorded against. The European parliament has thus resoundingly discredited the WHO and ICNIRP's recommendations, and laws are now being revised and implemented to protect citizens.

<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2009-0216+0+DOC+XML+V0//EN>

In February 2011, a new paper called The Seletun Scientific Statement declared that existing guidelines are not protecting the public and advised new levels and precautions.

Seletun Scientific Statement (Please review pages 5,6 and 7) It is noted that children and women are particularly sensitive and vulnerable to EMF.

<http://media.withtank.com/1d26a2b0ba.pdf>

Whilst the telecoms industry and their “ independent experts” in South Africa glibly quote ICNIRP guidelines which only refers to thermal heating and not biological effects , it still appears that no-one has read those fully either. Herewith a passage directly from ICNIRP General Approach Guidelines:

page 546 :

People being protected

Different groups in a population may have differences in their ability to tolerate a particular NIR exposure.

For example, children, the elderly, and some chronically ill people might have a lower tolerance for one or more forms of NIR exposure than the rest of the population. Under such circumstances, it may be useful or necessary to develop separate guideline levels for different groups within the general population, but it may be more effective to adjust the guidelines for the general population to include such groups.

Some guidelines may still not provide adequate protection for certain sensitive individuals nor for normal individuals exposed concomitantly to other agents, which may exacerbate the effect of the NIR exposure, an example being individuals with photosensitivity. Where such situations have been identified, appropriate specific advice should be developed-within the context of scientific knowledge.

Approaches to risk management

The ICNIRP approach to providing advice on limiting exposure to NIR necessarily requires well-based scientific data related to established health effects. When, in the absence of sufficient scientific evidence for the existence of a suspected adverse health effect, there are calls for protective measures, a number of approaches to risk management have been applied. These approaches generally center on reducing needless exposure to the suspected agent. However, ICNIRP emphasizes the need to ensure that the practical manner in which such approaches are applied should not undermine or be to the detriment of science based exposure guidelines.

ICNIRP notes the clarification afforded by the European Commission (CEC 2000; Foster et al. 2000) on the practical application of one such approach, the Precautionary Principle. For example, this includes the degree to which the Principle is based on the science (requiring an evaluation of risk research), and the provisional nature of measures pending further acquisition of scientific data.

It appears that the “Precautionary Principle” is not being applied either in protecting the citizens of South Africa and hence it is imperative that the EIA be fully reintroduced with in fact more stringent measures with pre-assessment of existing masts, radiation levels and sensitive areas.

The Precautionary Principle was signed by South Africa at the Rio Summit in 2002 and we appeal for it to be applied with a sense of urgency.

Paolo Vecchia, Chairman for ICNIRP presented at the RRT (Radiation Research Trust) conference in September 2008. In his presentation he made it very clear that : ‘ the ICNIRP guidelines are neither mandatory prescriptions for safety, the “ last word “ on the issue nor are they” **defensive walls for industry or others”**.

In addition to the biological impacts not being considered in the current guidelines, the pulse rate or modulation is not factored in either.

It is not just the frequency or power density either, but the pulsing (modulations) that can cause harm. Dr Blackman, past president of the Bioelectromagnetics Society, published a paper in Pathophysiology - “Evidence from ELF and RF studies supporting more inclusive risk identification and assessment”. Section 1.2. states: “Modulation signals are one important component in the delivery of EMF signals to which cells, tissues, organs and individuals can respond biologically.” He also mentions that “more recent studies of modulated RF signals report changes in human cognition, reaction time, brainwave activity, sleep disruption and immune function.” Dr Blackman includes the following sentence within the conclusion of his paper: **“Current standards have ignored modulation as a factor in human health impacts, and thus are inadequate in the protection of the public in terms of chronic exposure to some forms of ELF-modulated RF signals.** The current IEEE and ICNIRP standards are not sufficiently

protective of public health with respect to chronic exposure to modulated fields (particularly new technologies that are **pulse-modulated** and heavily used in cellular telephony). The collective papers on modulation appear to be omitted from consideration in the recent WHO and IEEE science reviews. This body of research has been ignored by current standard setting bodies that rely only on traditional energy-based (thermal) concepts.”

A letter by Barrie Trower, a retired military scientist covers the concerns of pulsing and the effects.
<http://media.withtank.com/20a1337be5.pdf>

As to the levels of safety for children there are no levels that are guaranteed as safe for children. None are prescribed by WHO either. The WHO told the EU it had only started observing effects on children in 2009, due to comment in approx 2024.

It is of concern that the Department of Health’s radiation department (non-ionising) still uses thirteen year old guidelines and when faced with people being affected have said “ we do not have the time and resources to investigate. “

People are being affected and in many cases are aware of it, hence this ever growing resistance to masts or antennae on or near their residential buildings, schools, churches and homes.

Within the South African context we receive calls almost daily, where people have become ill since the erection of a tower or antennae on their buildings or have had wifi/wimax placed in their school or offices.

Please note the telecoms industry in South Africa has received reports as to people advising them they are being affected.

Other health and environmental ministries world-wide are taking action in order to protect their citizens:

Taiwan removed all masts from schools (1500) in 2007.

<http://www.chinapost.com.tw/taiwan/2007/11/06/129715/1500-cellphone.htm>

Switzerland has installed optic fibre in their schools instead of wifi to eliminate children being exposed to microwaves.

<http://www.magdahavas.com/2010/10/20/free-internet-access-in-swiss-schools-no-wifi/>

France has also rolled out a network of optic fibre to homes and schools.

<http://media.withtank.com/52e1c9c420.pdf>

This is directly from the backbone to the home or school, eliminating the need for wifi/wimax/ completely and avoiding unnecessary exposure to EMR.

San Francisco has decided not to wifi their city following a stringent review on current scientific literature. Towns in France have removed it and wifi has also been removed from the public libraries.

Nigeria has taken notice of EMF and the dangers of indiscriminate siting of masts.

<http://www.tribune.com.ng/index.php/features/7142-indiscriminate-siting-of-telecoms-masts-base-stations-any-end-in-sight>

(In South Africa, service providers continue to roll out masts (cell and broadband) in schools with no concern as to the impacts on our children and The Departments of Education and Health appear to not be informed of the potential risks as no effort has been made to prevent this. GDARD continues to give approvals in sensitive areas)

Israel has prevented the rollout of 4G until the full health impacts can be assessed.

The Health and Environmental Protection ministries of Israel told the Communications Ministry on Sunday that they will oppose the expansion of cellular phone infrastructure to accommodate “fourth-generation” (4G) devices, at least until any health effects from the radiation are examined in depth.

The directors-general of the two ministries, Dr. Ronni Gamzu and Alona Schefer Caro, called on Communications Ministry Director-General Eden Bar-Tal to co-ordinate with them on the issue.

They wrote in an urgent letter that upgrading infrastructure to introduce fourth-generation cellular phones is liable to increase the use of such technologies and increase the public’s exposure to cellular electromagnetic radiation.

Its effects on health “have not yet been adequately proven,” Gamzu and Schefer Caro concluded, “thus the cautionary principle must be observed.”

<http://www.jpost.com/Health/Article.aspx?id=210138>

Israel bans antennae on residences:

<http://www.haaretz.com/hasen/pages/916666.html>

Please note these other worldwide concerns and actions :

<http://www.emrrfsa.org/world-concerns-summary/>

Independent doctors, scientists and researchers continue to sound the warnings :

Professor Olle Johanssen of the Department of Neuroscience and Dermatology Unit , Karolinska Institute, Sweden explains in one of his many research papers how EM fields attack the immune system, leading to disease and impairment. (Pathophysiology 16 (2009) 157 -177.) With the effect on the immune system, one needs to also consider what impact that this is having on those that are HIV positive in South Africa.

<http://www.scribd.com/doc/22173694/EMF-Immune-Compromise-and-Disease>

Dr Magda Havas’s groundbreaking research has shown a link between EMR and diabetes in addition to Multiple Sclerosis.

www.magdahavas.com

Other research is showing links to ADHD (ADD), CFS, Alzheimers, Fibromyalgia, autism, loss of fertility, allergies, asthma, heart disease, depression, suicides, miscarriages, obesity and electrosensitivity.

The increase in ADD and suicides are a serious concern in South Africa. A report last year indicated that suicides were up by 21% in South Africa.

Dr George Carlo was commissioned by the mobile industry in the US to conduct research on its products. His study involved 200 research doctors and 15 studies at a cost of 28.5 million US Dollars. "Our data showed increased risk to children, concerning tumours, genetic damage and other problems. My results were suppressed by the telecommunications industry " he has said.

Members of the European Academy for Environmental Medicine (EUROPAEM) in April 2010 addressed an urgent appeal to European environment and health ministers, - Commission, -Parliament and other organizations. Greatly concerned about the increasing prevalence of a group of chronic multisystem illnesses (environmentally related illnesses including chemical, biological and EMF-agents, with similar pathological mechanisms) they urged these groups to take these findings serious and financially invest more in prevention, precaution and best early detection etc. **Electromagnetic fields are being noted as a trigger.**

<http://www.csn-deutschland.de/blog/en/environmental-medicine-international-appeal-from-wuerzburg/>:

Long term studies around cell masts have shown health effects and increased cancers.

WHO (World Health Organisation) has on their database (2006) a pie chart where **80%** of the epidemiological studies published showed a significant increase in the adverse health symptoms being analysed from base stations which included cancers and microwave syndrome.

http://www.buergerwelle.de/pdf/who_and_pubmed_epidemiological_studies_on_base_stations_2006.pdf

Firstenberg (Firstenberg, A 2001) compiled a list of studies showing biological effects at levels far below most guidelines for radio frequency radiation. A study in January 2009 by the municipality of the Bavarian town of Selbitz found a correlation of symptoms found near a mast at 1.2 v/m and another German study where a mean value of 0.07 v/m was used.

<http://www.emrrfsa.org/newsletters/2010/07/08/specific-symptoms-and-radiation-from-mobile-basis-stations-in-selbitz-bavaria-germany/>

People, have reported the following symptoms near masts , in wifi areas or being exposed to other forms of electromagnetic fields : headaches, nausea, blurred vision, memory loss or unable to concentrate, rashes, heart palpitations, increased blood pressure, eye pain and struggling to focus, extreme fatigue. Itching, burning and dehydrated skin, tinnitus, hoarse or loss of voice, suppressed immune system, always feeling cold, shooting muscle pains, insomnia and erratic sleeping patterns, gastric disturbances, sore kidneys, liver sensitivity, sore ovaries, thyroid disruption, (sudden weight gain or weight loss) irritability, and depression. People have become EHS (Electrosensitive) with continued exposure to EMF's, a condition that makes normal life very hard for the sufferer who will feel ill at the slightest exposure to EMFs, RFs and electrical fields.

Santini et al (2002) showed many of these effects in a study of residents within 300 metres of a cell mast.

<http://apps.who.int/peh-emf/research/database/emfstudies/viewstudy.cfm?ID=772>

The well known Freiburger Appeal signed by over 40,000 in Germany, including over 3000 doctors listed many of these disorders and noted “ Our therapeutic efforts to restore health are becoming increasingly less effective: the unimpeded and continuous penetration of radiation into living and working areas, particularly bedrooms, an essential place for relaxation , regeneration and healing , causes uninterrupted stress and prevents the patient’s thorough recovery.”

http://www.laleva.cc/environment/freiburger_appeal.html

2005 Ireland IDEA Irish doctors concern over EMR health effects and electrosensitivity.

<http://www.ideaireland.org/emrIrishresearch.htm>

Switzerland: Dr. Rau Paracelsus Health Clinic treats 10,000 people annually. They assess health in light of EMF exposure. Although health issues are multi factorial, his assessment is EMFs are a hidden factor in many illnesses:

<http://www.paracelsus.ch/welcome>

Prof Frans Adlkofer, who was at the SABS/STUK conference and repeated the findings of the EU's Reflex study of severe genetic damage and micronuclei formation from low-level cellphone radiation, has also put out a stringent warning about 3G technology/ broadband/umts and health, saying there is no doubt that it is "ten times more genotoxic" than ordinary cellphone radiation and raises the risk of cancer:

“The DNA strand breaks occur at only 1/40th of the guideline limits. Hence, UMTS signals are almost ten times as active as GSM signals.”

<http://www.next-up.org/pdf/PressReleaseConcernPrFranzAdelkoferVerumFoundation06102007.pdf>

Cancer is a significant risk of EMFs. Cancers around masts have been studied worldwide as have cancers with cell phone usage.

A German study by a team of local medical doctors in Naila with data from over 10 years, discovered a threefold increase in new malignancies in people living up to 400m from a mast after five years exposure when compared to people living further away in the same town.

<http://www.scribd.com/doc/3856847/Nail-A#full>

Barrie Trower by 2006 had logged over 200 leukaemia clusters around cellphone masts, each cluster consisting of more than ten children under the age of 11, in the UK, Spain and France. Most of these children died.

A study by GP's at the Kaplan Medical Centre, Israel, discovered a fourfold increase in cancer within 350m after long term exposure to a phone mast and a TENFOLD increase specifically in women. In addition, Roland Stabenow, the head of cancer registry in Berlin, informed the residents of Steinbach-Hallenberg that there was a 7 fold increase in breast cancer amongst people in their area living near the cellular antennas.

<http://www.vws.org/documents/Wolf-Israelstudy.pdf>

A study (Hallberg 2002) looked at “before “ and “ after” the introduction of frequency modulated transmitters across Estonia. He identified a steep increase in cancer mortality after transmitters were allowed across this country.

<http://heldref-publications.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,5,12;journal,29,58;linkingpublicationresults,1:119954,1>

A 2004 study Eger,H.et al. also reconfirmed the effect of distance versus the incidence of cancer from a mast at specific power levels.

http://www.powerwatch.org.uk/news/20041118_naila.pdf

A study by Blake Levitt and Dr Henry Lai covered several studies on base stations.

http://www.magdahavas.com/wordpress/wp-content/uploads/2010/11/Blake_Levit-Henry_Lai.pdf

A new recent study from Japan (Saito T et al 2010) has again indicated the link between EM fields and cancers in children.

P **Saito T et al**, (2010) *Power-frequency magnetic fields and childhood brain tumors: a case-control study in Japan*, J Epidemiol. 2010;20(1):54-61. Epub 2009 Nov 14 [View Comments and Links] [View on Pubmed]

An industry study that was originally undertaken in German and then later was translated to English, is the ECOLOG study(funded by T-Mobile) Its conclusion after 220 peer-reviewed papers was that they found “ strong indications for cancer-initiating and cancer-promoting effects of high frequency.” It also found indications for genotoxic effects like single and double stranded DNA breaks, birth derformities, disruptions of other cellular processes, stress reactions and disruptions to the endocrine and immune system.

<http://www.hese-project.org/hese-uk/en/niemr/ecologsum.php>

The three top cancers for children in South Africa are leukaemia, followed by brain and then eye. The Cancer registry appears to have not been maintained since 2002. The increase in cancers, the types and the locations may very well be a research project for the Department of Health. This study has recently been done in Spain where a cancer map has been created, tracking the link to electromagnetic fields, industrial factors in the region of Murcia.

“In the study were identified a total of 489 patients diagnosed between 1998 and 2009 in the region of Murcia, which was finally included to 380. With regard to the most frequent types of cancer, in the first place are leukemias - 28.4% of the total number of cases; followed by tumors of the central nervous system - 23.9%-; sarcomas of soft tissue - 10%-; and lymphomas - 8.4%-. In sections of the age, 15% focused on under 1 year of age; 37.4% between 1 and 4 years; 27.6% between 5-9; and 20 per cent between 10 and 14 years. In addition, 380 cases 187 corresponded to children and 193 to girls, and the 5-year survival rate was 80.4% between 2002 and 2005.”

Professor Yury Grigororiev, Chairman of the Russian National Committee on non-ionizing radiation stated in a Radiation Research Trust conference “ The potential risk to children’s health is very high and a completely new problem. Use of mobile phones for those under 18 or pregnant women should be restricted. **Children have a unique vulnerability as they grow and develop: there are windows of susceptibility, periods when their organs and systems may be particularly sensitive to the effects of**

certain environmental threats. The existing standards cannot guarantee the safe, healthy development of the next generation “

LEGAL

On the legal front there are now many cases overseas where masts have been ordered removed.

Legal precedent was set by Mr Wulf Dietrich Rose, expert in mobile communications who won three cases in the High Austrian Court of Justice (Federal Court) (Az60b 69/Olt;26-4-2001) Rose proved through his studies irradiation represented serious health risks to nearby populations.

<http://www.mapcruzin.com/news/cell071001a.htm>

In January 2002 a small village in Spain won a rare but potentially powerful victory. It left a bitter taste, for the parents of Valladolid who were fighting, they felt, for their children’s health which should never have been put at risk in the first place.

These parents sought and secured - a court order for the removal of 36 mobile phone transmitters installed on a building 50 metres from their local primary school.

In the 18 months since these masts went up three children aged 5-10 developed leukaemia and a fourth had Hodgkin’s Disease. And before the masts, there hadn’t been a single childhood cancer in the village for 32 years.

<http://www.canceractive.com/cancer-active-page-link.aspx?n=208>

In just one of the cases in France a judge in Angers Tribunal de Grande Instance (District Court) has forbidden the Orange phone company to install mobile phone antennas in the bell tower of a church right next to a school. This judgement was a first in France, since sentence was passed before the event.

The judge explained that his decision was based specifically on the precautionary principle. Their defence was undertaken by Maître Denis Seguin, a lawyer who specialises in environmental law, who in his summing up emphasised the precautionary principle: **"At Notre-Dame-d'Allençon, the children would be exposed against their will."**

In his plea the lawyer listed the most common pathologies caused by exposure to artificial hyperfrequency microwave radiation. The terms of the judgement also sentenced the phone operator Orange to pay the sum of 2500€ to the petitioners as well as costs. Judgement was passed on Thursday March 2009. There have been several more cases in France.

<http://www.mast-victims.org/index.php?content=news&action=view&type=newsitem&id=3850>

The Court of Appeal of Tunis (July 2010) ordered the dismantling of a base station installed on the roof of a villa in a residential neighborhood in the capital on behalf of uncertainties about its impact on health of residents. Seized in an emergency procedure by the trustee of the local residents, **the judge ruled that the risk was significant for the health of residents on the basis of a report of an expert appointed for this purpose.** The latter noted that electromagnetic waves generated by antennas can have adverse health effects even if they are installed at a distance of 100 meters.

Referring to Article 99 of the Code of Obligations and Contracts, Court of Appeal held that "even if the current science cannot determine with certainty the exact impact of electromagnetic orders, there is a risk impact on the health of residents."

<http://www.gnet.tn/revue-de-presse-nationale/la-justice-a-reconnu-leur-danger-des-antennes-relais/id-menu-958.html>

The Vatican has been held responsible for the cancers caused by the microwaves from its radio station :

Vatican Radio Caused Cancers, Must Compensate Victims

PRESS RELEASE OF FEBRUARY THE 27TH 2011

Thursday February the 24th 2011 was an historical date for the ITALIAN JUSTICE: the supreme court of cassation dismissed the appeal of radio Vatican against the decision made on the 14th October 2009, issued by the court of appeal of the court of Rome and definitively condemned the broadcaster for the crime of "the casting of dangerous things" (act. 674 of the italian penal code).

Legal action will not be taken against the sole survivor and defendant, cardinal Roberto Tucci, because the crime has gone into prescription. **However, the civil rights have been confirmed: economical compensation in favour of the plaintiffs and payment of the legal expenses.**

The Cassation has therefore confirmed what was said in the sentence of the 14/10/2009, n.6492 " ... that held by the plaintiff."

The Coordinating Authority of the Committees of northern Rome (Coordinamento dei Comitati di Roma Nord) point out that this judgment pronounced was the eighth pronouncement of numerous judges of various rank in regards to this matter having duration of more than 11 years.

During this time, in fact, there have been successively two proceedings in the court of first instance, two pronouncements of second degree and 4 sentences of the Court of Cassation have occurred, of which one of them in the area of criminal proceedings for multiple manslaughter, for which the judge of preliminary investigations of the Court of Rome, after the surprising and impressive results of the epidemiological investigation carried out in 5 years in the territory neighboring the installations, the 13th of November 2010 committed the procedural documents to the Prosecutor's office for the consequent decisions of the Prosecutor.

WE HERE SUMMARIZE THE RESULTS OF THE EPIDEMIOLOGICAL INVESTIGATION OF THE COURT OF ROME:

Conclusions in the study of the death rate for leukemia at all ages: the risk factor up to 12 km distance from radio Vatican is 4.9 times higher than the expected value for distances beyond 12 km.

Conclusions in the study of the incidence of leukemia and lymphoma in children ranging between 0 to 14 years of age: the risk factor up to 12 km distance from radio Vatican is 4.1 to 4.7 times higher than the expected value for distances beyond 12 km and up to 6.9 times above expected when considering only children older than 1 year.

WE NOW QUOTE FROM THE REPORT OF THE EPIDEMIOLOGICAL INVESTIGATION OF THE COURT OF ROME:

"... the excess of risk is dramatically high ... the effect is very large and cannot be attributed to random cases The results obtained are absolutely astounding ... we are not capable of finding a different cause if not that due to radio Vatican ... one cannot avoid thinking that something important has happened for the lives of those people, that can be explained due to other causes other than radio Vatican ... the results have to do with the dislocation in which these people have lived during their lives and these children have lived in their lifetime. Such high levels of risk are found, in scientific literature, only in epidemiological studies relative to areas that have suffered the effects of an atomic explosion."

Giorgio Cinciripini

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In some cases the public have destroyed or removed the masts themselves, as in Botswana last year.

<http://www.mmegi.bw/index.php?sid=1&aid=189&dir=2009/October/Monday12>

Service providers removed a mast in Craigavon/ Fourways and in Dainfern/ Fourways South Africa following severe opposition from the communities.

Health impacts from 56 residents were recorded by the community in Craigavon, Johannesburg which included toddlers and children.

Who will be responsible for the health impacts on the legal front for what is happening now – the industry or our government for ignoring the dangers and not implementing protective and precautionary measures ? What responsibility will the landowner share ?

ELECTROSENSITIVITY

It is known that people are more sensitive than others to EMR. It is estimated that 3% of the world's population are extremely sensitive (electrohypersensitive) and another 35% are partially electrosensitive.

For those who are electrosensitive, the effects can be debilitating and the numbers are growing as more frequencies are introduced into the spectrum. People have become electrosensitive by exposures to masts (cell / broadband) being placed close to homes and from continued exposure to wifi in offices/schools.

Initially the symptoms may just start as headaches, shooting muscle pains, stomach pains, rashes, burning, itchy skin, nausea, concentration problems but could end up with the person continually feeling unwell and more serious impacts. Whilst some people will feel and show the effects quickly, it does not mean that other people are not being affected. Some people and their medical doctors, may well not be recognising the symptoms either.

Once electrosensitive, it is exceptionally difficult to cope in cities. Sufferers have often had to leave the city and their work as they become too ill when exposed to EMR. France and Italy have set up EMR free zones to allow electrosensitive people to escape to.

http://www.next-up.org/Newssoftheworld/EHS_Refuge_Zone.php#1

Sweden fully recognises the disability and special homes, work environments and facilities in hospitals are made available for them.

http://www.feb.se/index_int.htm

People who are EHS have had to screen their homes where possible, wear protective clothing and sleep in Faraday cages or under special fabrics that block a large amount of the frequencies. Those who cannot afford these methods have resorted to living hermit type lives in forests and isolated areas.

The Department of Health of South Africa does not have a database of electrosensitive people.

WHO recognises EHS and it is listed as a disability. "The symptoms are certainly real and can vary widely in their severity. Whatever its cause, EHS can be a disabling problem for the affected individual"

There are excellent papers by Professor Olle Johanssen of Sweden and Dr Magda Havas of Canada on the subject of electrosensitivity and entire international conferences are addressing the subject as concerns grow.

<http://media.withtank.com/1b39aeb7dd.pdf>

http://www.magdahavas.com/wordpress/wp-content/uploads/2011/01/06_Havas_EBM.pdf

Cohen A, Carlo G, Davidson A, White M, Geoghan C, Goldsworthy A, Johansson O, Maisch D, O'Connor E, "Sensitivity to mobile phone base station signals", Env Health Perspect 2008; 116: A63-A64

www.ncbi.nlm.nih.gov/pubmed/18288297

One of the many electrosensitive magazines:

<http://www.es-uk.info/news/20101227-main-newsletter.pdf>

In many cases we believe that health reactions to EMF is not being recognized, due to the lack of education on the matter.

Dr William Rea past president of the American Academy of Environmental Medicine said

" Sensitivity to electromagnetic radiation is the emerging health problem of the 21st century. It is imperative health practitioners, governments, schools and parents learn more about it. The human health stakes are significant "

ENVIRONMENT

There are many studies now showing the impacts of EMF on birds, bees, trees and fish life.

- <http://www.scribd.com/doc/21559103/So-Much-Research-Yet-So-Little-Notice-Taken>
- <http://mcs-america.org/march2011pg67891011.pdf>
- <http://www.hese-project.org/hese-uk/en/issues/nature.php?id=trees>
- <http://www.emrrfsa.org/natures-corner/>
- <http://ipublishing.co.in/jesvol1no12010/EIJES2044.pdf>
- <http://inthesenewtimes.com/2010/05/29/riz-gets-bee-buzz-right-experiment-shows-fallout-of-mobile-radiation/>
- <http://www.emrrfsa.org/natures-corner/2010/07/16/glastonbury-symposium-lecture-by-barrie-trower/>
- <http://www.emrrfsa.org/natures-corner/2011/03/07/bees-birds-and-mankind-destroying-nature-by-electrosmog/> by Ulrich Warnke

Recent mass bird and fish deaths across the world recently have been attributed to electromagnetic radiation such as 4G and HAARP. Investigation and reports are still being assessed.

There are many examples in South Africa where trees have been shown to be affected around masts.

<http://www.emrrfsa.org/natures-corner/2011/03/08/the-effect-on-trees-from-nearby-masts/>

Plant deterioration in homes next to masts have been noted and recorded too.

There have been preliminary research studies into the disappearance of insects in Johannesburg and a study in Natal showed the memory loss in rats subjected to electromagnetic fields.

<http://www.emrrfsa.org/medical-and-scientific-research/south-african-studies/>

It was estimated in 2009 that the carbon dioxide emissions produced globally by the telecoms industry released 110.7 million tonnes of Co2 into the atmosphere That is equivalent to emissions from 29 million cars. (Bennett 2009).

PROPERTY VALUES

It is well known that people do not want homes near cell masts and this has been noted by Estate Agents. The loss of value of a home has been estimated between 35% and 50%.

Therefore who must be held responsible for the loss of the value of a home following the placement of a mast ?

Saturday Star, Johannesburg, December 4 2004

Nice house, but pity about the cellphone mast. People living near a cellphone mast and wishing to sell their houses may not get the prices they want. This is because prospective buyers believe that the masts and power lines are harmful.

A number of Joburg estate agents told Saturday Star of their battle to market properties situated near cellphone masts or power lines.

One family in Hurlingham Manor have been trying for five years to sell their R2,2-million house, but no one is interested because of the cellphone mast on the property next door.

The house is a prime property in Sandton and at one stage was advertised in Millionaire's Club magazine.

Herbie Ellison, estate agent with Seeff Properties and chairperson of Hurlingham Manor North Association, said the prospective buyers had expressed concern about the proximity of the cellular mast.

"I believe that the mast could cause surrounding properties to depreciate by about 35% to 50%," said Ellison.

The Department of the Environment, the Department of Health, the Department of Communications and GDARD do not appear to have a grid referencing all masts or antennae in South Africa as is required in other countries. Once a grid is in place of all legal and illegal installments, then perhaps better planning could be implemented to avoid areas being swamped with unnecessary levels of non-ionising radiation.

We therefore ask in the short term for the reintroduction of the EIA and full public participation with stricter enforcement and monitoring.

Areas and homes need to be measured prior to any installation in an area to assess what those homes are **already** being exposed to **collectively**.

We also request for the introduction of updated legislature that will protect our health, environment and property values. Levels that also protect electrosensitive individuals are to be considered.

An electrosensitivity registry is essential and the education of government officials on this subject.

Please consider an independent committee to assess the numerous health reports around masts/antennae on buildings and for each new technology and frequency to be pre-tested by independent health officials that are qualified before the roll-out of that technology. (including smart metres)

The retaining of hardwired telecommunications is essential and the **protection** of those lines must be implemented for those who do not want to subject themselves to unnecessary exposure from wireless communication. A long term solution is optic fibre, but in the interim Telkom should continue to provide landlines and ADSL actively for South Africa.

The Bill of Rights of the South African Constitution guarantees citizens the right "not to be subjected to medical or scientific experiments without their informed consent":

http://www.doj.gov.za/legislation/constitution/20081210_cn_2.pdf

The Bill of Rights also gives special protection for children, stating: "A child's best interests are of paramount importance in every matter concerning the child"

As we stand now, the technology we are being subjected to has not been proven safe and therefore we ask that measures be taken to protect us, the citizens of South Africa.

In the words of Dr Robert O. Becker twice nominated for the Nobel Prize " **I have no doubt in my mind that at the present time, the greatest polluting element in the earth's environment is the proliferation of electromagnetic fields. I consider that to be far greater on a global scale, than warming, and the increase in chemical elements in the environment. "**

We trust that the government of South Africa is listening.

Sincerely yours

Tracey-Lee Dorny

Chairman

On behalf of the Foundation Committee and members.



ELECTROMAGNETIC RADIATION RESEARCH
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"Our lives begin to end the day we become silent about the things that matter "
Martin Luther King Jnr

Affiliated to the EM Radiation Research Trust UK <http://www.radiationresearch.org/>

Member of the [International EMF Alliance](#)

The EMRRFSA Foundation Project is endorsed by E. Oppenheimer and Son and The Diamond Route.

The Diamond Route is a massive national project which focuses on linking the conservation properties of the Oppenheimer family and De Beers. These properties conserve vast conservation areas and provide a safe haven for a wide variety of unique, rare and ecologically important plants and wildlife and provide endless photographic opportunities. These properties are open to the public who are encouraged to explore this wealth of tourism opportunities. Please visit the

website www.diamondroute.co.za or contact Duncan MacFadyen, Manager of Research and Conservation: E. Oppenheimer & Son on Duncan.MacFadyen@eoston.co.za

THE PRECAUTIONARY PRINCIPLE SIGNED AT THE RIO SUMMIT BY SOUTH AFRICA IN 2002

The Precautionary Principle

Lack Of Conclusive Evidence & The Precautionary Principle:

"The precautionary principle states that if a policy (or action) has a **suspected risk** of causing harm, in the absence of a rational consensus that harm will not occur, the burden of proof falls on those who would advocate the policy (or action)."

Due to the uncertainty of the validity of "thermal" safety standards in terms not only due to their **wide variation** amongst countries, and the fact that these safety standards **do not cover "non-thermal effects"** the application of the "Precautionary Principle", is advocated.

"Effectively, this allows **policy makers to make discretionary decisions** in situations where there is evidence of potential harm in the absence of complete proof.

The principle implies that there is a **responsibility to intervene and protect people** from exposure to harm where there is a plausible risk."

<http://habitat.igc.org/agenda21/rio-dec.html>
http://en.wikipedia.org/wiki/Precautionary_principle