

Introduction



Mobile-phone use in Kenya has increased substantially, the number of subscribers having reached 11.5 million by January 2008. As a result, there has been a corresponding rise in the public interest expressed with regard to the health issues allied to the exposure of humans to the Electro-magnetic Fields (EMF).

What is radiofrequency electromagnetic energy (RF/EME)?

Both mobile-phones and their Base Transceiver Stations (BTS – commonly known as ‘base stations’) emit radiofrequency (RF)/electromagnetic energy (RF/EME), which is a form of radiation technically referred to as non-ionizing radiation (NIR), which is incapable of changing molecular structure of any material. Other sources of RF/EME include: mobile-phones, Base Transmitter Stations (BTS), remote control devices, broadcast transmitters and electric/electronic devices.

Which body regulates RF/EME?

Emissions of ionizing radiation are regulated in Kenya by the Radiation Protection Board (RPB).

What standards are in place to protect consumers against the known effects of RF/EME?

The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has developed a set of guidelines designed to ensure the protection of the general public against the possible ill-effects of non-ionizing radiation.

What radiation levels are associated with mobile phones and what is SAR?

The rate at which the electromagnetic radiation emitted by a cell-phone is absorbed by the body is measured in terms of its Specific Energy Absorption Rate, or SAR value. An average cell-phone has a SAR value of 1.6w/kg, but some have a value as high as 2.0 W/kg, which is the recommended maximum SAR value for a cell-phone.

What radiation levels are associated with BTS?

A recent survey by the World Health Organization (WHO) has shown that the RF exposure occasioned by



BTSs ranges from 0.002% to 0.2% in relation to the maximum levels of exposure permitted internationally. Such exposure is comparable to the RF exposure caused by radio or Television-broadcast transmitters and is, therefore so low (approximately 1000 times lower than permitted maximum exposure levels) to pose a threat to human health.

Are mobile phones safe?

Current scientific research has not revealed any substantial evidence to the contrary.

More information on SAR levels

Users wishing to obtain specific information on the SAR levels of the existing range of mobile-phones should contact the Mobile Manufacturers Forum (MMF): www.mmfai.org.

Is living within close proximity to a BTS safe?

No adverse health effects have been observed to afflict persons living close to BTSs.

What regulations cover the installation of radio communication equipment?

The Communications Commission of Kenya, working in cooperation with other relevant parties, is currently in the process of establishing a ‘Code of Practice for the Setting-up of Base Transceiver Stations’, which will address any specific concerns raised by those living in proximity to a BTS.

For more information about RF/EME and human health, see the following:

1. The World Health Organization website: www.who.int
2. The ICNIRP Guidelines: www.icnirp.de/documents/emfgdl.pdf
3. ‘Mobile Phones Your Health and Regulation of Radiofrequency Electromagnetic Energy’. Available on the ACMA website: www.acma.gov.au
4. Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields available from the Federal Communications Commission (Bulletin No. 65): www.fcc.gov/oet/rfsafety/