

UNITED REPUBLIC OF TANZANIA

REPORT ON NATIONAL ACTIVITIES ON ELECTROMAGNETIC FIELDS

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Non-Ionizing Radiation

Background

The use of *ionizing* radiation mainly in medical diagnostic field was introduced in Tanzania in early 1960's. However, it was until 1983 when the legal framework for the protection of hazards resulting from its use was put in place (the Protection from Radiation Act, No 5 of 1983). Thereafter, the National Radiation Commission was established in 1983 as the sole regulatory body responsible for the protection of Occupationally Exposed, Members of public and the Environment from hazards emanating from the use of *ionizing* radiation.

In 2003, however, the Protection from Radiation Act No. 5 of 1983 was repealed and replaced by the Atomic Energy Act No. 7 of 2003. The Act established the Tanzania Atomic Energy Commission (TAEC) which, in turn, replaced the National Radiation Commission. The Tanzania Atomic Energy Commission is mandated to protect members of Public and the Environment from effects resulting from the use of both *ionizing* and *non ionizing* Radiation. It is also responsible for the promotion of nuclear technology in the Country. Hence the history of the protection of possible hazards resulting from the use of EMF activities in Tanzania started from 2003.

New Policies and Legislation

Part VII of the Atomic Energy Act gives TAEC mandate to establish a system for authorization of the use of plants, apparatus and devices, which emit Non Ionizing radiation above levels prescribed in the regulations. Besides, TAEC is responsible for inspection and surveillance of all activities involving the use or emission of Non Ionizing Radiation. TAEC provides safety instructions and guidance to investigators and users of equipment capable of emitting *non ionizing* radiation and enforces measures to ensure safe use of *non ionizing* radiation sources. However, at present there are neither regulations nor written guidelines available to guide users of EMF activities.

Public Concern

Over the past three years, there has been public concern on the possible health hazards associated with the use of mobile phones. Members of public who live in the neighbourhood of mobile phone base stations have also been concern on the electromagnetic radiation which are emitted by antennas mounted on mobile phone masts to the extent that majority do hesitate to allow new installations of base stations near residential areas.

Recently, there has been also an emerging serious concern that some of mobile phones entering domestic market are not of good quality. Most of these phones known as “fake phones”, though not Chinese make, are imported from China. These phones which are sold at cheaper prices are easily found at open markets, and they do not last for so long. They do not even bare names from which Countries they are manufactured. Due to unavailability of a clear importation system for importing electric and electronic instruments in the Country, it is difficult for the time being to monitor and control the import of all mobile phones entering the Country.

In order to address some of public concern on the levels of RF radiation which the public are exposed from mobile phone base stations, the Tanzania Atomic Energy Commission perform measurements around various mobile phone base stations randomly selected from residential areas. It was found that people living up to 300 metres from base stations were exposed to the power density ranged from 1/20% to 5% of ICNIRP (1998) guideline value for public exposure. However, these measurements need to be confirmed.

Research Activities related to EMF health

At present, there are none research activities on the effects of EMF on human health which are going on. This is due to lack of expertise in the field, modern laboratories and funds to execute such activities. In future, however, research activities in collaboration with other institutions are foreseen to help respond to and clarify some of the concerns from public.

Public Information

Members of public are not getting the right information on EMF and Health. Most of them rely on hearsays as well as information posted on internets. This is because not only the introduction of this technology in the country is relatively new (about 10 years) but also there are still no appropriate information regarding EMF issues which is addressed to the public. There is a need therefore to impart appropriate and accurate information to public so as to make them be aware of EMF and make correct decision. At present however, the Tanzania Atomic Energy Commission is in a process of organizing a meeting/workshop to stakeholders to address the matter.