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# COMMUNIQUÉ

## FIRST WEST AFRICAN CONFERENCE ON ELECTROMAGNETIC FIELDS (EMF) EXPOSURE AND HEALTH: *HELD AT THE VICTORIA CROWN PLAZA HOTEL VICTORIA ISLAND LAGOS – NIGERIA JUNE 27-28, 2012*

### INTRODUCTION:

The Nigerian Communications Commission in collaboration with the West African Economic Community of West African States (ECOWAS); West African Telecommunications Regulators Assembly (WATRA); Mobile Manufacturers' Forum (MMF); GSM Association (GSMA) recognized the potential for public concern about EMF Exposure from a range of sources including mobile telecommunications Masts and Mobile Telecommunications Mast and Mobile Phones; Power lines and other wireless services LAN or Wireless broadband and broadcast transmitters.

These concerns could affect the deployment of new wireless services and other EMF Infrastructure, which are essential to economic and social activities. The Commission however recognized that a harmonized approach to EMF Exposure standards and consistent Communication is of benefit to all stakeholders.

A successful First West African Conference on EMF Exposure and Health: “Harmonizing EMF Policy, Exposure Limits and Risk Communication in West Africa.” The conference held in Lagos, Nigeria from 27-28, June 2012 formed the basis for the conference to address growing concerns in the existence and operations of mobile communications infrastructure; their effect on the health and welfare of the people and the environment. It sought to examine the true state of affairs regarding Electromagnetic Field Exposure and health implications.

Discussions were centered on the possible harmful effect that mobile phones and their associated Network infrastructure could pose to users and the level of exposure and risk of people living in the vicinity of base stations.

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The conference had a high level participation of the:

- Chairman Senate Committee on Communications; represented by Distinguished Senator Anthony Adeniyi and the Members of the Committee;
- Chairman House of Representatives Committee on Communications Hon. Oyetunde Ojo and the Members of the Committee;
- Chairman House of Representatives Committee on Environment represented by Hon. Akpan Micah Umoh Ph.D and the Members of the Committee;
- Chairman, House of Representatives Committee on Science and Technology – Hon. Abiodun I. Akinlade and his Members;
- The Honorable Minister of Communication Technology;
- The Honourable Minister of Health;
- The Executive Vice-Chairman of the Nigerian Communications Commission (NCC);
- Representative of the World Health Organization (WHO) - Dr. Emilie van Deventer;
- Representatives of the Economic Community of West Africa (ECOWAS) – Mr. David Kamara, Director Transport & Telecommunications and Dr. Raphael Koffi, Principal Programme Officer/Head of Telecommunication Division ECOWAS;
- Various International Bodies, Agencies, Forums and Associations:
  - West African Telecommunication Regulators Assembly (WATRA)
  - World Health Organisation (WHO) International Commission on Non Ionizing Radiation Protection (ICNIRP)
  - Mobile Manufacturers Forum (MMF)
  - GSM Association (GSMA)
  - National Association Telecommunications Subscribers (NATCOMS), represented by its president, Chief Deolu Ogunbanjo
- Equipment Manufacturers (Huawei, Ericsson, Samsung, Nokia etc)
- Operating Companies in the Mobile Telephony subsector.(Airtel Networks; Etisalat; MTN Communications; IHS; Helios Towers; etc);

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- Environmental Enthusiasts from various states, including Lagos, Edo, Oyo, etc;
  - Health Practitioners, including representatives from University College Hospital (UCH), whose CMD was represented by Dr. Simpa Dania,
  - Interested Stakeholders and members of the Public.

A total of nine papers were presented on various aspects of EMF Exposure and Health.

The outcome of this forum is intended to be used to address the concerns of Nigerians and allay their fears as well as an informed opinion to the on-going policy formulation at the National Assembly as well as for a process to develop harmonized legislation, and related enforcement mechanism in the West African sub-region.

## BACKGROUND INFORMATION

There are some salient facts and general information that were adduced in the course of discussions:

- 1) The ubiquitous and pervasive usage of Mobile Telephones cannot be wished away, there are currently close to 5.9 billion subscribers globally<sup>1</sup>. Continuous efforts in research on this issue must be encouraged.
- 2) The world of high technology we live in today is such that we are surrounded by broad range of sources for Electromagnetic Field exposure such as Microwave Oven, Television, Mobile Telephone Network, , Broadcast Towers, Radar facilities, Remote Control, electrical and electronic equipment, WiFi and other wireless devices.
- 3) There is a misconception in the public domain with people often misconstruing Radiofrequency EMF from Mobile Telephony devices as being the same as IONIZING (Radio-active and Nuclear) radiation.
- 4) Electromagnetic Fields (EMF) from Mobile Telephone Networks (Handsets and Base Stations) are **NON-IONIZING** i.e. **they are not** capable of

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<sup>1</sup><http://www.itu.int/ITU-D/ict/statistics/index.html>

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directly breaking Chemical bonds, for example in DNA. Unlike X-Rays, Gamma rays etc.

- 5) Mobile Phones are low powered RF Transmitters (0.1–2Watts); transmission occurs only when device is ON; Power diminishes significantly as distance from source increases.
- 6) Extensive research has been conducted into possible health effects of exposure to many parts of the frequency spectrum. All reviews conducted so far have indicated that exposures below the limits recommended in the ICNIRP (1998) EMF guidelines, covering the full frequency range from 0 to 300 GHz, do not produce any known adverse health effect. (<http://www.who.int/peh-emf/research/en/>)
- 7) The International Agency for Research on Cancer (IARC) based on results from the Interphone Research is of the opinion that "possible effects of long-term heavy use of mobile phones require further investigation.". Hence the Group 2B classification of radiofrequency EMF, as possibly carcinogenic to humans.
- 8) The Group 2B classification is used when a causal association is considered credible, but when it cannot be proved with reasonable confidence. It seems noteworthy that all RF EMF were placed in the same group which also embraces substances like coffee, marine diesel fuel, gasoline engine exhaust and pickled vegetables.

## **MATTERS ARISING**

In the course of the various presentations and interactions by the participants, some of the pertinent issues that came out are:

- a) There is an absence of specific Health, Safety and Environmental (HSE) policy framework on Telecommunications industry in Nigeria.
- b) Presently in Nigeria, there is neither Research effort nor capacity to do same by Universities, Medical Facilities and other interested parties.
- c) There is a need to encourage a multi-stakeholder approach to research and policy development in this very topical issue.

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- d) The Nigerian Communications Commission (NCC) has specific guidelines for the design and installation of Base Stations and other Telecommunication Network infrastructure.
  - e) The Nigerian Government is mindful of the growing worry amongst the populace on the possible health effects of EMF on the populace and the environment. This forum is one of the activities to allay such fears.
  - f) Another effort to address this issue is the proposed bill currently on the floor of the National Assembly which seeks, among others, to establish limits on human exposure to EMF.

## RECOMMENDATIONS

From the highly interactive discussions during the 2-Day conference, highlights of which are captured above, the following are the recommendations and action points:

- 1) There should be a formation of a holistic and harmonized Policy that addresses the deployment of RF equipment with EMF emissions.
- 2) Existing internationally acceptable safety guidelines on the EMF measurement standards and maximum exposure should be adopted in the formulation of such policy.
- 3) A multi-stakeholder approach should be used in the formulation of such policy; the relevant governmental bodies and various interest groups must be carried along and specific roles and responsibilities must be clearly highlighted.
- 4) The Nigerian Communications Commission (NCC) should setup a framework for Health, Safety and Environment (HSE) Regulations for Operators and their partners i.e. Installers, Suppliers etc.
- 5) Ensure strict compliance of Installation guidelines to ensure that the agreed standards are not breached.
- 6) The NCC should be more effective in “active policing” of the proliferation of end-user terminal equipment (such as Handsets) from questionable sources; which have not been duly type-approved by the Commission.

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- 7) There is need to continually provide fora such as this and effectively use other media to enlighten the public, so that people may know the FACTS and not believe in myths.
  - 8) The NCC, working along with other capable entities, should commission local research on EMF exposure and effective communication, using local resources, assumptions and data.
  - 9) Such Research should be implemented in line with International Best practices; transparent funding, unbiased publication of results in peer-reviewed journals
  - 10) Such Research should take into cognizance local nuances of various communities in order to identify specific data/issues that have causal relationship.
  - 11) The Ministry of Health as well as the Ministry of Environment should collaborate in such studies.
  - 12) The NCC should increase its efforts to encourage the Operators to embrace co-location and sharing of facilities; this will reduce the psychological effect of fear when people in the environs see so many masts/towers in the same area.

The following are also some recommendations directed at the end-users/populace:

1. RF EMF emitted from base stations **DO NOT** present any risk to the people in the surrounding area as long as international guidelines are complied with;
2. Radiations from Mobile Telecom Infrastructure are electromagnetic and not radioactive or nuclear. Radioactive/nuclear radiation is definitely dangerous and harmful.
3. Due to distraction sending SMS or making phone calls while driving is a health risks and should be avoided;
4. If users are concerned about EMF exposure, they can reduce their exposure by making calls in areas with good reception as there the transmission power of mobile phones will be reduced, by keeping calls short or by using hand-free devices.

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5. There is no convincing evidence that children are more vulnerable, however, if parents are concerned they may consider restricting the usage of mobile phones.

## CONCLUSION

The Forum concluded that based on the evaluation of the overall picture from all available international studies no relationship between radio frequency (RF) electromagnetic fields (EMF) exposure below international limits and symptoms has been conclusively established and studies on perception and physiological responses do not provide support for a causal link between RF EMF exposure and the occurrence of symptoms.

That the existing body of knowledge on the effect of EMF on human health and the environment is credible enough for Nigerians and West Africans to rely on and be rest assured that the use of mobile phones and exposure to base stations and other RF fields below the international limits do not cause or constitute health hazards;

To date, research does not suggest any consistent evidence of adverse health effects from exposure to RF fields at levels below those that cause tissue heating.

Research has not been able to provide support for a causal relationship between exposure to EMF and self-reported symptoms, or “electromagnetic hypersensitivity”.

The foregoing notwithstanding, the Forum calls for a Nigerian and West African coordinated research into the impact of mobile phones and base stations and other RF fields on human health and the environment in line with WHO research agenda.

*June 28, 2012*