LivingScience Foundation, Ile-Ife

2nd National Conference on Environment & Health

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Theme: MANAGING THE ENVIRONMENT TO PROTECT OUR VULNERABLE POPULATIONS

Communiqué





4 - 5 April, 2017
Redeemers University, Ede, Osun State

I. INTRODUCTION

The second National Conference on Environment and Health organized by the LivingScience Foundation, Ile-Ife held at the Redeemer's University, Ede between 4th – 5th April, 2017. The theme was: Managing the Environment to Protect Our Vulnerable Populations. The conference was a follow-up to the maiden one held between 17th-18th May 2016 at the same venue. The general vision for the conference is the provision of a Platform where relevant key stakeholders would come together to exchange information and ideas, as well as brainstorm on customized creative solutions that would ensure sustainable development in the country.

The conference featured 9 Lead Speakers, 8 Session Chairpersons, and about 250 other Participants. The Honourable Minister of Agriculture and Rural Development, **Chief Audu Ogbeh** (OFR) was represented by the State Director of the Federal Ministry of Agriculture and Rural Development, Osun State, **Mr Joseph Adeniyi Ogunwale**. The Director General of the National Environmental Standards and Regulations Enforcement Agency (NESREA), **Dr Lawrence Anukam**, who at the last minute had to cancel his trip was represented by the South West Zonal Director of the Agency, **Mr Adeleke Ajani**. Similarly, the Registrar of the Environmental Health Regulatory Council of Nigeria (EHORECON), **Mr Dominic Abonyi**, was represented by the South West Zonal Coordinator of the Council, **Mrs A.F. Daramola**. The keynote address was delivered by **Prof Lawrence I. Ezemonye** (*FNES, FSESN*). Professor Ezemonye is professor of Ecotoxicology and Environmental Forensics at the University of Benin, Benin, as well as the National President of the Nigerian Environmental Society (NES). He was the pioneer Director of the National Centre for Energy and Environment. The citation of the Keynote Speaker was read by **Dr (Mrs) Janet Ademola**, Head of Physics Department, University of Ibadan, Ibadan. The Opening Plenary Session was chaired by **Prof Abiodun F. Oluwole** (NNMA) Retired Professor of Physics, OAU, Ile-Ife; Emeritus Professor, FUT Akure; and Managing Director, SEEMS (Nigeria) Ltd, Lagos. Prof Oluwole is one of Nigeria's pioneers and doyen in Environment and Health.

The lead Plenary Speakers included:

Mr Rajiv Bali - Group Managing Director of Ife Iron & Steel Nigeria Ltd., Ile-Ife, Osun State, and Speciality Pulp and Paper Limited, Ijebu-Ode, Ogun State.
Engr Isaac Olusanya Fakolujo (MNSE, R.Engr.) – Retired Deputy General Manager at the Osogbo Steel Rolling Mills (OSRM) and Consultant to the Dangote Steel Rolling Mills (former OSRM), Osogbo.
Mr Adeleke I. Ajani. Director, National Environmental Standards and Regulations Enforcement Agency (NESREA), South-West Zonal Office, Ibadan, Oyo State
Prof Olayinka Ogunkoya, Professor of Fluvial Geomorphology, Department of Geography, Obafemi Awolowo University, Ile-Ife
Dr Joseph O. Olorunda (MPHIV, PhD, DEH, FWAPCEH), Professional Officer in charge of Allied Health Professions. West African Health Organisation, Bobo-Dioulasso, Burkina Faso
Prof M.C. Asuzu (FMCPH, FFPHM, FCPHM). Professor of Community Medicine at the University College Hospital, University of Ibadan, Ibadan; and Co-Chair, the Environmental Health Technical Working Group of the World Federation of Public Health Associations.
Prof A.O. Aboderin, Professor of Clinical Microbiology and Deputy Provost, College of Health Sciences, Obafemi Awolowo University, Ile-Ife
Mr Temitope Akinwumi, *FWPCEH*. President of Environmental Health Officers Association of Nigeria, Osun State Chapter.

Contributed papers were presented in 3 parallel sessions. Session Chairmen included Mr Adeleke Ajani, Prof M.C. Asuzu, **Prof O.G. Adeyemi** (Dean, College of Natural Sciences,

Redeemer's University, Ede), **Prof Adedeji Onayade** (Department of Community Medicine, Obafemi Awolowo University, Ile-Ife), **Prof E.O.B. Ajayi** (retired Professor, Department of Physics and Engineering Physics, Obafemi Awolowo University, Ile-Ife), **Dr Paul Ogah** (NESREA, Ibadan), and **Prof O.S. Falade** (Department of Chemistry, Obafemi Awolowo University, Ile-Ife). The events were coordinated by **Pastor Gbenga Akosile** (Chaplain, Redeemer's University), **Dr S.A. Oginni** (Osun State Ministry of Health), **Mr Oluropo Dairo** (Redeemer's University), and Dr Paul Ogah (NESREA, Ibadan).

The Opening Session also featured the launching of a peer review technical Journal, the **Nigerian Journal of Environment and Health**, as well as a Press Conference with representations from **The Guardian, Punch, Leadership, Nigerian Tribune, Biz News**, and the **Nigerian Television Authority**. The launching of the Journal was coordinated by Prof M.C. Asuzu from the University College Hospital, Ibadan; while the Press Conference was chaired by **Pastor Gbekele AdeyeOluwa**, the chairman of the Board of Advisers of LivingScience Foundation.

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II. FOUNDATIONAL PRINCIPLE

The Conference recognized that for sustainable development to be achieved in Society, three basic dimensions need to be carefully balanced. These are the Social, Economic, and the Environment-Health dimensions. The Conference upheld that a more favourable optimized balance could be obtained for the general society in these three dimensions, if those segments of society that might have to disproportionately bear the costs of development in the Environment-Health dimension, are specially recognized and catered for. This category of so-called vulnerable segment of the population includes:

i. Populations living within regions that ought to have been designated as buffer zones of industrial pollution or other environmental hazards (eg GSM Masts and Towers, petrol stations, etc); which regions, however due to long-term inefficiencies in the urban planning and land-use structure in the country, coupled with ineffective enforcement of regulations and standards, are now residential.

ii. Subjects who are biologically susceptible to environmental hazards. These include babies in the womb, infants, children, women of childbearing age, hospitalized patients, and the elderly.

iii. Occupationally exposed individuals.

III. OBSERVATIONS AND RECOMMENDATIONS

Observation I: Management of environment-health issues in Nigeria is at the present time effected in an *ad hoc* manner, characterized by speculations and lack of synergy among relevant stakeholders - even within various Government Ministries, Departments and Agencies. There is a conspicuous absence of the environment and health on the exclusive and concurrent legislative list on the 1999 Constitution which has implications for equitable and judicious allocation of responsibility for environment and health between the Federal and State Governments. A Comprehensive Environment Health Action Plan (which will include a more aggressive public education) as advocated for by the National Council on Environment is yet to be implemented. A compass is urgently needed to facilitate a more coordinated system in order to protect the health and life of our teeming populace.

Recommendation: The Conference agreed that there is no better time than now to formulate a National Policy on Environment and Health. Such policy should also incorporate a comprehensive Action Plan on Environment-Health. The various bodies present at the Conference including the LivingScience Foundation, the Nigerian Environmental Society, the NESREA, and Academic Units in Universities all expressed readiness to participate in such an exercise under the coordination of the Federal Ministries of Environment and of Health.

Observation II: Currently, toxicological bases for setting safety standards in the country are arbitrary and largely uncritically adopted from suggestions or practices from other climes. For instance, Safe Permits for the use of chemicals in Nigeria are issued based on their Material Safety and Data Sheets (MSDS) without ecotoxicological considerations; while safety standards set for the regulation of microwave radiation from GSM towers and masts in the country are based only on thermal effects with non-thermal effects ignored. There is need to develop locally-realistic predictive test models, incorporating sublethal effects, to provide precise estimates of population level risks for various typical Nigerian scenarios, and thus enhance the optimal management of the environment for sustainable development and sound public health in the country.

Recommendation: It is recommended that a National Toxicological Data Bank and related Environment-Health Risk Assessment tools be established for effective and realistic management of environment-health issues and setting of appropriate safety standards that would be compatible with sustainable development in the country. The Federal Ministry of Environment is best placed to commission the Data Bank.

Observation III: Sanitation holds the key to public health in Nigeria. The Conference upheld that there is need to be proactive in instituting sound sanitation in the country, rather than wait to spring to action following outbreaks of diseases such as Lassa fever or meningitis, as is currently the case. Availability of clean water is pivotal to good sanitation. Water however is the ultimate environmental sink, receiving the most environmental abuse from all sectors. Statistics from the United States have shown significant correlation between average human lifespan and availability of clean water.

The other key issue associated with Sanitation is Solid and Municipal Waste. The Conference noted that cultural factors, social practices, and municipal infrastructure could exert strong influences in both generation and management of municipal solid wastes. Poor urban planning could also exacerbate municipal waste management problems and render people vulnerable to environment-health problems. The Conference recognized the significant contributions to environment-health being made by Waste-to-Wealth entrepreneurs and Scavenging industries in reducing and recycling of solid and municipal wastes. It however noted that without appropriate incentives, technological innovation, and adequate regulatory oversight, the subsequent operations in such activities could translate to fresh environment-health nuisance to the public.

Finally, the Conference noted that it is not uncommon to find unscrupulous factories engage in sharp practices in their declarations on waste management. For instance such a company could operate an official channel for discharge of effluents where regulatory standards are met, while at the same time have other undeclared channels where effluents are not adequately treated before discharge.

Recommendations: Provision of clean water should be treated not just as a social service, but also as a public health issue. Attention, resources, and efforts at least similar to those given to mass vaccination programmes, should be paid to provision of clean water as healthcare intervention. Simultaneously with the efforts to provide mass treatment of water, modular treatment of water at community and household levels should also be promoted. This will require innovative local research which should be promoted by Agencies such as NESREA.

Funds accruing from penalties paid by polluting companies should be channelled into research at universities and allied institutions; as well as used to jumpstart green companies by aspiring young entrepreneurs. This will both solve the environment-health problems as well as provide jobs for our youths.

Regulators should be trained and empowered to recognize and deal with sharp practices by unscrupulous companies.

Observation IV: It is not exactly correct to continue to lament as unknown, the reasons for the astronomical increases in chronic diseases such as cancers, kidney problems, depression, etc - as we do annually on the days designated by the UN agencies to draw attention to these diseases. Environmental pollution is clearly associated with these conditions, and Food and Nutrition is central in the toxicological dose-response to the hazards. Poor knowledge of basic nutrition facts in the midst of aggressive unregulated advertisements by profit-minded food businesses is leading people into unhelpful decisions and practices with respect to food and nutrition.

In particular, Genetically-Modified (GM) Foods represent a new class of foods that may drastically adversely change the environment-health spectre in the country. While Genetically Modified Organisms (GMOs) could indeed offer real potential benefits – in areas spanning medicine, pharmacy, industrial agriculture, etc. their accommodation into FOOD for man or animals must be treated with utmost caution.

Recommendations: The very many research findings available in the country concerning benefits of local traditional foods should be effectively communicated to the public, via incorporation into educational curricula, public enlightenment programmes, and other mass outreach outlets.

Government should commission independent local toxicological safety tests, addressing long-term effects (including reproductive toxicity, genotoxicity, developmental toxicity, and chronic organ damages), on every GMO product that would be allowed into the country. Such imported products should be adequately labelled for the benefit of the public. Commercial cultivation of GMOs in Nigeria should not be allowed at all, based on the additional issues (apart from potential adverse health impacts) of intellectual property rights and ecotoxicity. These could have serious adverse impacts on the economy, food security, and environment in the country as well as distract from other potentially more beneficial agricultural innovations and interventions.
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Observation V: The looming public health nightmare of antimicrobial resistance was identified. It was observed that an alarmingly increasing number of infections are becoming untreatable by any of the existing antibiotics. The Conference noted that antimicrobial resistance is a quintessential *One Health* issue spanning human, animal and environmental domains. Consequently, a coordinated approach across sectors including livestock and environment is

essential in finding solutions. Actions are required at global and national levels with multi-stakeholders engagement to prevent a reversion to the pre-antibiotic era.

Recommendation: The conference noted that the irrational use of antibiotics has played a significant role in this alarming development. It therefore strongly urged, in line with the recommendation by the World Health Organization (WHO), that Antimicrobial Stewardship Teams should be established at medical facilities in the country. This should begin with the Tertiary health institutions which not only are heavy users of antibiotics, but also are responsible for training of healthcare personnel in the country.

Observation VI: Other major environment-health issues addressed during the Conference were the role of climate change in distribution of diseases, and the continued use of thimerosal (49.6% ethyl mercury) in childhood vaccines in Nigeria. The Conference noted that complex environmental, social and demographic factors affect the distribution of diseases, such as malaria in the country. For instance, one paper presented at the Conference described the shift in parasite prevalence across regions in the country over a sixty-year period (1955-2015). On the continued use of mercury in vaccines, it was noted that thimerosal is contained in most forms of some vaccines used in Nigeria and that this chemical, either alone or together with other components of vaccines, could produce neurotoxic effects in children; hence their proscription in most advanced countries of the world (since 2001 in the USA, and even much earlier in Europe). Vaccines in this category include those used against diphtheria, tetanus and pertussis (DTP), diphtheria and tetanus toxoids (DT), tetanus toxoid (TT), hepatitis B, *Haemophilus influenzae* type b (Hib), and influenza.

Recommendations: The Conference recommended that more studies on impacts of climate change on disease transmission within the country should be carried out to help predict shifts and prepare ahead for their effects. It also recommended that efforts be intensified to develop local capacity for vaccine production in Nigeria. Thimerosal should be proscribed from vaccines used in the country as is the case in other countries in the world where the total health and fulfilment of the child is held at a premium.

Observation VII: It was noted that steel development is critical to the development of any modern nation, and that sooner or later, Nigeria would need to revisit the steel industry (eg. the currently abandoned Ajaokuta steel industry) in the country. Whenever this would happen, it is important to ensure that the operations be green and environmentally-friendly, with a robust synergy between the chemistry of pollutants and the technology that leads to their generation.

Recommendation: Research should be sponsored to promote green and environmentally-friendly operations in the steel industry.

General Recommendations: One recurring recommendation was the need for more Universities to introduce degree programmes in Environmental Health to further facilitate the development of capacity at "specialist levels." At the same time, the training at "practical level" should also be strengthened. Universities should be challenged and empowered to address and solve national environment-health problems facing the nation.

Participants also unanimously agreed that this kind of inclusive result-oriented conference should be organized more frequently. More supports (financial and in logistics) are solicited ahead, from the relevant agencies of government, for the 3rd National Conference on

Environment and Health envisaged to hold about between April and May 2018. Supports given to such a meeting should be considered as funds well invested in the fulfilment of the critical mandates of the relevant MDAs for the good of the Nigerian public.

ACKNOWLEDGEMENTS AND APPRECIATIONS

The Conference commended the LivingScience Foundation, Ile-Ife, and the Redeemer's University, Ede, for the initiative in convening the unique and timely town-gown conference. The leadership of the NESREA both at the South West Zone and the Osun State Chapter were particularly commended for their invaluable massive logistic supports for the Conference.

The Conference acknowledged the highly encouraging presence of delegates from the Federal Ministry of Agriculture and Rural Development, and the inspiring speech of the Honourable Minister. The conference similarly recognized the presence of the high-powered delegates from the Nigerian Environmental Society (NES), the Environmental Health Officers Registration Council (EHORECON), the Consumer Protection Council, Osogbo, the Department of Public Health, Adeleke University, Ede, the Nigerian Army Engineering Corps, Ede, and the Osun State Waste Management Board, Osogbo.

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Prof Joshua Ojo and Dr Adeniyi Oginni addressing the Press



Mr Joseph Ogunwale and Prof Abiodun Oluwole



Delegates from Nigerian Environmental Society



Some Dignitaries at the Opening Ceremony