



Promoting Excellence in Knowledge

GHANA ACADEMY OF ARTS AND SCIENCES



ANNUAL LECTURE IN THE SCIENCES 2019

TOPIC:

IS GHANA ON THE BRINK OF ECOLOGICAL SUICIDE?



SPEAKER:

**PROF. ROSE E. M.
ENTSUA-MENSAH, FGA**

Former Deputy Director General, CSIR

DATE:

THURSDAY 10TH OCTOBER, 2019

TIME:

5:00 PM

VENUE:

**GHANA ACADEMY OF ARTS
AND SCIENCES AUDITORIUM**

*#1 Research Crescent, Casely Hayford Road, Airport Residential
Area, Near Water Research Institute, CSIR, Accra*

PROF. SAMUEL K. SEFA-DEDEH, FGA

Vice President, Sciences Section, GAAS

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PROFILE OF
PROF. ROSE E. M.
ENTSUA-MENSAH, FGA

Former Deputy Director General, CSIR

PROF. ROSEEMMA MAMAA ENTSUA-MENSAH, daughter of Mr. Solomon Richmond Richard Croffie and Mrs. Emma Norma Croffie was born on the 24th of September 1959 in Tamale. She holds a B.Sc in (Zoology), Diploma in Education, M.Sc. (Aquatic Biology) from the University of Cape Coast and a Ph.D. in Fisheries Science from the University of Ghana. She also holds a Certificate in Aquatic Resource Management from the University of Hull, UK, as well as a Post Graduate Certificate in Business Administration from GIMPA. She is an old girl of Wesley Girls High School where she did her 'O' Levels (1977) and 'A' levels (1979).

She is a Fishery Scientist and an Aquatic Ecologist. She has done extensive research nationally and internationally and attained the position of Chief Research Scientist at the CSIR becoming one of the few female research scientists to have achieved this accomplishment. Her main research focus was on lagoons and freshwater bodies in Ghana and other countries in the West African Sub-region, documenting fish species and providing knowledge on their ecology and traditional management. She assessed the status of freshwater fishes in West Africa for the IUCN. Her research was also on coastal ecology and waterfalls of Ghana, women in water management and sanitation, science education and policy, among others. She was one of the few African Scientists involved with the Millennium Ecosystem Assessment (2004-2005). Her research on the effects of illegal mining on aquatic life in water bodies of Ghana, manatees and fisheries have received extensive recognition locally and internationally. She has to your credit over 100 publications including refereed journal articles, books, consultancy reports, edited and unedited conference papers, project and technical reports.

She was a Visiting Scholar to University of Tennessee, (Knoxville), USA in 2005 and has also taken time of to teach at the University of Education Winneba (2001-2003) and the University of Cape Coast (2006-2009). She has consulted for the FAO and World Bank. In 2010 she was invited by the National Research Foundation of South Africa to be part of a 3 member International team to assess 3 of their research institutes.

As the first female Deputy Director-General of the CSIR, she assisted the Director-General in setting the research priorities of the Council in line with government policy. She was responsible for quality assurance and undertook monitoring and evaluation of the research outputs of the 13 CSIR research institutes to ensure that research results were reliable, relevant and customer driven. She also oversaw the transfer of the results of agricultural research to relevant institutions and user-agencies through the national Research- Extension-Farmer Linkage Committees operational in all the regions of Ghana. She has been involved in drafting two National Science and Technology Policies for the Ministry of Environment Science and Technology.

In terms of research coordination, she coordinated the research aspect of the West African Agricultural Productivity Programme (WAAPP 1 2008-2013 and WAAPP 2 2013-2017), as well as the Food and Budgetary Support (FABS) research for Ghana from 2010-2012, in partnership with the World Bank Office and Ministry of Food and Agriculture. The Food and Agricultural Budgetary Support programme was by the Canadian Development Agency (CIDA) now Global Affairs Canada. Until the end of her tenure as Deputy Director General, she coordinated the research aspect of the Modernizing Agriculture in Ghana program, also funded by Global Affairs Canada. She also coordinated the Korean agricultural programmes with the CSIR, KAFACI and KOPIA. She was Chair of the Competitive Agricultural Research Grants Scheme for the National Agricultural Research System in Ghana from 2008-2017.

Within the CSIR, she chaired a number of committees including the Internal Promotions Committee and Graduate School Committee (2010-2015). Together with others she spearheaded the establishment of the CSIR-College of Science and Technology and the CSIR Council recognized her for her effort. She facilitated a mentoring programme in CSIR for young Scientists both male and female. She retired from the CSIR this year

She holds membership of several local and international professional associations, boards and committees, she was a Member of Board of Trustees of the World Fish Centre (2012-2017) and also the African Women in Agricultural Research and Development International Steering Committee (2011-2017). In 2015 she chaired the Global Fisheries Biodiversity Conference organized by the FAO in Rome. She was the Chair of the IUCN West African Freshwater Fisheries Group from 2012-2018. She was Vice Chair of the Christian Health Association of Ghana from 2007-2014. She served on the Board of Directors of Cocoa Processing Company from 2010-2014 and was a member of the University of Cape Coast Council from 2014-2017.

She was awarded the Duke of Edinburgh Gold Award in 1978 and the Tonolli Memorial Award for Limnologists in 1994. In 2012, Ghana's Ministry of Women and Children's Affairs honored her with an Excellence Award for her Research in Fisheries. Also, in 2012 the University of Cape Coast honored her as one of their Distinguished Alumni.

In 2013, she was adjudged Africa's Most Influential Woman in Agricultural Research for her work in Fisheries by the Group Creating Excellence in Organizations in South Africa. She is a Fellow of the Ghana Academy of Arts and Sciences. She is currently the Chair of the University of Ghana College of Basic and Applied Sciences Advisory Board.

Prof. RoseEmma Mamaa Entsua-Mensah is the wife of Clement, the mother of Nanakua, Maame Adwoa and Kobby as well as the proud grandmother of Ewuradwoa Agyeiwaa and Nana Afua Nyanba, RoseEmma and Paakwesi.

IS GHANA ON THE BRINK OF ECOLOGICAL SUICIDE?

Ghana has been extremely blessed by God with a lot of natural resources, Ghana is well watered with a coastline, it has forests, minerals, and a wide assemblage of biodiversity.

The lecture is on the Sustainable Development Goals, Ecological suicide, Ecocide, Ecological Grief, Environment, Food, Health and Water Security, Sanitation, Capacity building and strong institutions, as well as the Common Good. It is an opportunity for us as Ghanaians to examine ourselves dispassionately and to look at what we are doing to the environment we inhabit.

The natural environment of Ghana is the land, air, water and all forms of living and nonliving things. All living things need all the three basic components for their existence. Any imbalance in the environment can thus threaten life on earth.

The Sustainable Development Goals (SDGs) would be under threat in Ghana if unsustainable degradation practices are not addressed and the nation will head towards an **Ecocide**.

The fishing industry in Ghana is based on the marine, inland (freshwater) and aquaculture sectors. Constitutes 3% of National GDP, 5% of the Agriculture GDP.

The Volta Lake, reservoirs, fishponds and coastal lagoons are the main sources of freshwater fish. The artisanal sector contributes 73% of total marine fish landings annually. In Ghana artisanal marine fisheries are the backbone of the fishing industry.

The major problems in the artisanal fisheries sector in Ghana are overfishing the widespread use of destructive fishing practices and introduction of “Saiko” fishing. Volta Lake trees harvesting has negative effects on fisheries. Human settlements and industrial development causes loss of lagoon resources.

Mining and Pollution of Water Resources: Rural youth move from agriculture to artisanal and small scale mining our major river basins and second highest employer in gold areas.

Importance of Water to Food Security: Water is key to food security. legal and illegal surface illegal mining, waste, chemical fertilisers and pesticides, chemicals from mining, and rapid population growth have left Ghana's water resources ungovernable. High nutrient loads have led to Blue-green algal blooms, cyanotoxins production with health implications serious socio-economic to human and animal health. Lack of adequate water greatly affects livelihoods especially of women.

Deforestation Land and Soil Degradation:-The forest resources of Ghana consist of high forests (humid forests) and savanna. Of the 8.2 million ha at the beginning of the 20th Century only an estimated 1.6 million ha remain due to overexploitation (Hard woods-Rosewood), degradation through mining activities with soil erosion and soil fertility depletion and Loss of Biodiversity and unsustainable management.

Women and Environmental Management: Women and especially rural women have a deep awareness of the dependence of human society on a clean and bountiful environment. Sanitation and Waste Management: (UNICEF) -Water Sanitation and Hygiene (WASH) reports it could take over 500 years for Ghana to eliminate the practice of open defecation alone due to the slow pace at which strategies, laws and interventions are being implemented. In Waste Management Ghana needs to employ the 3Rs: Reduce, Reuse, Recycling

The Nation needs to strengthen local capacity and build strong institutions for environmental planning and management and to coordinate overall environment strategy and sustainable development for the Ghana beyond aid agenda.

Finally, The Common Good consists of our shared values about what we owe each other as citizens who are bound together in the same society. Let us keep the Common good in mind is a shared attitude. It recognizes that we are all in it together. If there is no common good there is no society.

PROGRAMME OUTLINE

5:30 PM

■ **Introduction of Chairman**

*Prof. P. K. Turkson, FGA,
Honorary Secretary, GAAS*

■ **Chairman's Remarks and Introduction of Speaker**

*Prof. Samuel K. Sefa-Dedeb, FGA;
Vice President, Sciences Section, GAAS*

■ **Lecture**

■ **Chairman's Closing Remarks**

■ **Honorary Secretary's Remarks**

■ **Refreshments**

ANNUAL LECTURES

The Academy instituted the Annual Lectures in the Sciences and Humanities in 1993, with a view to creating a platform where Fellows could take turns in addressing topical issues in the humanities and the sciences.

Annual Lectures delivered in the Sciences and the Arts from 2003 are as follows:

SCIENCES

- 2003 Water: A Crisis in Development, Letitia E. Obeng.
- 2005 The Landscape industry in Sustainable Environmental Management, *J.C. Norman*.
- 2006 Avian Influenza Symposium, GAAS and College of Physicians and Surgeons Collaboration
- 2007 Who is a Sickle Cell Person, *S. K. Addae*.
- 2008 Managing the Impact of Climate Change on Food Security: Some Post-Production Options for Ghana, *S. Sefa-Dedeb*.
- 2009 Technology for Development in Resource-Poor Countries, *W. S. Albassan*.
- 2010 The Threat of Counterfeit and Substandard Drugs to Healthcare Delivery in Developing Countries, *I. Addae-Mensah*.
- 2012 Clay; Its Benefits to Mankind, *V. P. Y. Gadzekpo*.
- 2013 Naturally Occurring Radioactivity in Our Homes, *Aba Bentil Andam*.
- 2015 Galamsey: Effects on Soil Productivity, *Y. Abenkorab, and E. Owusu-Bennoah*.
- 2017 Stress and Rest: Pharmacodynamic Modulation for Sustainable Human Health, *Arthur C. Sackeyfio*.
- 2018 Plants and Human Development, *G.K.S. Aflakpui*

ARTS

- 2004 Language, the Mass Media and Democracy in Ghana, *K. Yankab*.
- 2005 Parliamentary Vetting and our Constitutional Democracy, *G. K. Acquab*.
- 2007 Military Technology, the Nkrumah Government and Ghana Armed Forces, *S. K. Addae*.
- 2008 The African Family in Crisis: the Case of Ghana, *G. K. Nukunya*.
- 2009 Signposts to Healthy Politics in Ghana, *J.R. A. Ayee*.
- 2010 Language, Africa, and the Art of being Human, *M. E. Kropp-Dakubu*.
- 2012 Peaceful Electoral Environment and Elections: The Role of Stakeholders, *E. Asante*.
- 2013 The Constitutional Phrase 'We the People' and the Politics of Inclusion, *K. Gyekye*.
- 2016 Scholarly Publishing in Africa and the Role of the Open Access Initiative (OAI), *A. A. Alemna*
- 2017 Of Demolished University Gates in a Fourth Republic: Is Academic Freedom under Siege, *K. Yankab*

THE ACADEMY

The Ghana Academy of Arts and Sciences is Ghana's Premier Learned Society. It was founded in November 1959 by Government Instrument of Incorporation. Its aim is to bring together the highest level of intellectuals, experts, professionals in the country to constitute a 'Think Tank' in the Arts and Sciences to enable it advise government and other relevant bodies on issues of importance to national development.

Mission:

The mission of the Ghana Academy of Arts and Sciences is to encourage the creation, acquisition, dissemination and utilisation of knowledge for national development through the promotion of learning.

Objectives:

The Academy's objectives are to:

- Promote the study, extension, and dissemination of knowledge of the Arts and Sciences;
- Promote the establishment and maintenance of proper standards of endeavour in all fields of the arts and sciences;
- Recognize outstanding contributions to the advancement of the arts and sciences in Republic of Ghana;
- Contribute actively to the advancement of Ghana and Africa in particular and the world in general by examining and addressing issues of development; and
- Do any other things that are conducive or incidental to the attainment of all or any of the foregoing objects.



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GHANA ACADEMY OF ARTS AND SCIENCES



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