

**MAN, ENVIRONMENTAL SAFETY
AND SUSTAINABILITY:
THE ROLE OF RESEARCH**

A Book of Reading in Honour of

PROF. N.C. OHAZURIKE
Imo State University, Owerri, Nigeria

EDITED BY:

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PREFACE

It is a special privilege and rare opportunity to write the preface of a book in honour of a mentor, a quintessential scientist, respectable distinguished Professor, whose illustrious career in academics spanned over three decades of scientific research and committed scholarship, with remarkable contributions to the growth and development of education and scientific research in Nigeria and the global community. This accomplished and consummate leader had his academic career tightly garnished with key appointments and outstanding performance in strategic administrative units of the University system and further blessed with critical appointments from the Federal Government of Nigeria.

As a Plant Scientist, he immensely appreciates the value of plants in the environment and the intimate relationship between the two. This made him an advocate for the environment and a strong environmental enthusiast. He served the Shell Petroleum Development Company as an environmental adviser and remains a consultant on environmental issues with tremendous works in environmental impact assessment, environmental project and biodiversity studies with publications on global warming, gas flaring, acid rain, erosion, pollution and consequences of deforestation on the environment. His interest in the environment was further buttressed by his active participation in World Environment Day activities, with him being the Conference Convener at IMSU for the World Environment Day celebration of 2018 with the theme "Beat Plastic Pollution" in addition to his impressive lecture on global warming in 2011 Ahiajoku Colloquium.

In view of the above background, I consider it another privilege to be part of the editors of a book of readings titled "Man, Environmental Safety and Sustainability: The Role of Research", which is very apt and a valuable valedictory gift to a committed academic, researcher, and an active member of Nigerian Society for Plant Protection (NSPP) and Mycological Society of Nigeria (MYCOSON), Professor Nathaniel Chukwusimkwuo Ohazurike, who devoted his life to the well-being of plants and the environment.

His friends, colleagues and mentees within and outside the University decided to celebrate and honour him with this book of readings, for his many years of fruitful interactions with us in the field of teaching, research, community service and administrative leadership, as he disengages from formal University employment.

Nathaniel Chukwusimkwuo Ohazurike was born 18th June, 1952 into the catholic family of Chief Fredrick Ajapurumba Onyiriro Ohazurike and Ezinne Alice Iheyinwa Ohazurike of Akpuobu Assah Ubirole in Orsu LGA of Imo State, Nigeria. He did his primary Education at St. Marys' Primary School,

Assah Ubirilem, and had his Secondary education at Community Grammar School, Awoidemili and completed at Abhot High School, Ihiala, at the end of the civil war.

After his Higher School Certificate Programme at Holy Ghost College Owerri and brief auxillary teaching experience at Uromi Girls Grammar School, Uromi, then Bendel State, he gained admission into the University of Ibadan in 1975 in the Faculty of Science.

Graduating in 1979, he did his NYSC Programme at Government Technical College, Wudil, Kano State. On completion of the NYSC Programme in 1980 and with a good first degree from the University of Ibadan (Second Class Honours upper division), he took up appointment in the Department of Biology at Alvan Ikoku College of Education, Owerri on 1st December, 1980. With perseverance and dedication, Prof Ohazurike earned his higher degrees at the University of Port Harcourt- M.Sc (Mycology and Plant Pathology 1988 and Ph.D (Plant Pathology 1993). After 16 academic sessions (1980/81 to 1995/96) of active teaching (9 years with postgraduate qualification), he joined the services of Imo State University as a senior lecturer in the Faculty of Agriculture on 31st August, 1996. With diligence and commitment, he rose to the rank of Reader in 1999 and Professor of Plant Pathology in 2002.

Since joining the University, every Vice Chancellor has found him very useful in the administrative structure of the system. He was the elected Faculty Representative in the University Senate (1997-2000). He became the pioneer Head of the Department of Crop Science and Biotechnology (2001-2005 and 2006-2007). As a Director of Endowment, he coordinated the activities of the Governing Councils' Committee on endowment from 2000 to 2005 simultaneously with his position as Head of Department and regularly in attendance at council meetings. He became Dean of the Postgraduate School from 2007 to 2009, Dean Faculty of Agriculture (2009-2014), Director of Academic Planning and member of the University Management (2014-2018) and in concert with the University Management and Heads of Departments secured accreditation for 62 out of the 64 academic programmes of the University. He was the chairman, senate business committee throughout the 2011/2012 academic session and has headed several critical senate committees and panels. He also served as Director, Joint Universities Preliminary Examination Board (JUPEB) (2021-2022), from where he retired from formal employment of the University.

From 1989 to date, he has to his credit substantial publications in reputable national and foreign journals, books and conference proceedings and has supervised 15 postgraduate students (MSc and PhD). He has served as an external examiner for 48 postgraduate students (21 PhD and 27 MSc) in 9

Nigerian Universities and has participated in the assessment of 24 academics for promotion to the Professorial Cadre from eleven Nigerian Universities. He was the 26th inaugural lecturer of the Imo State University on 28th November, 2019.

Professor Ohazurike is a member of a good number of professional/learned societies such as Agricultural Society of Nigeria (ASN), Nigerian Society for Plant Protection (NSPP), Botanical Society of Nigeria (BOSON), Mycological Society of Nigeria (MYCOSON) and the American Society for Plant Biologists (ASPB), and a fellow of the Institute of Policy Management Development (IPMD).

From 2006 - 2022, he has served as either member or chairman of several NUC (National University Commission) accreditation teams for accreditation in Universities in virtually all parts of the nation. From 2005 to 2006, he served as Environmental adviser to Shell Petroleum Development Company and has severally served as their consultant on environmental issues. He also served as Chairman, Governing Council of Adeyemi Federal College of Education, Ondo, Ondo State, Nigeria (2017-2020) (Currently, Adeyemi Federal University of Education). He was a member of the Federal Government visitation panel to Federal University Gusau, Zamfara State (2021).

Traditionally, Prof. Ohazurike belongs to all the traditional and chieftaincy institutions of his community and holds chieftaincy titles from several communities including that of his community, Assah Ubirielelem viz: "Ugochinemere of Assah Ubirielelem" and Ihitte Akata; "Ugonmuta of Awo Idemili" and "Ahakaku of Okwuodor" among others.

He is an active Catholic Christian, a grand Knight/4th degree member of the Knight of St. Mulumba Nigeria and a patron of the Owerri Archdiocesan Mass servers association and patron of Regina Pacis Region Choirs Association (Orlu Diocese). He is also a patron of the Owerri Archdiocesan Catholic Men Organisation. He has served as Chairman, St. Joseph Catholic Chaplaincy Council, IMSU, Owerri (2011 to 2015) with the Church dedicated in his tenure on 25th May 2014. At his home town, he was the chairman, St. Marys' Catholic Parish Council, Assah Ubirielelem (2003 to 2010) with the church dedicated to God in his tenure on 25th August 2007. These contributions and several others have earned him several honours and awards too numerous to mention.

Prof. Ohazurike is a dedicated family man. His marriage to his lovely wife Dr. Mrs. Eudora Uche Ohazurike is blessed with a girl and four boys (two engineers, a lawyer and a medical doctor). He is also blessed with five grandchildren and a daughter-in-law who is also a lawyer, all to the glory of Almighty God.

This book of readings, consisting of 32 chapters cut across arts and science articles that provide sufficient information to stimulate the interest and curiosity of researchers, lecturers and students, captains of industries, policy makers and implementers, and the general public with rapt interest about our environmental safety. Since the mission of our coming together is to eulogize the contributions of one of us in the field of scientific research, we sincerely appeal to all to give this book of reading a rightful corner in your minds and libraries.

I therefore, with all sense of humility and respect, recommend this book to you all for your pleasant reading.

Prof. Onuh Martin Onuh
Dean, Faculty of Agriculture
Imo State University, Owerri

15th August, 2023

FOREWARD

It is a very good and rewarding idea to celebrate and give honour to a man who has left indelible footprints in his career trajectory and in public service in general. Thanks to the organizers who deem it necessary to publicly announce the disengagement from formal employment of a reputable scientist, an iconic botanist and an astute administrator who has touched lives at every stage of his service to the University system and the public. Prof. Ohazurike has shown leadership and capacity as Head of department, Dean of Faculty, Dean of Post Graduate School, Director of Academic Planning, Director of Endowment and Director, Joint Universities Preliminary Examinations Board (JUPEB) as well as in the National University System and Federal Ministry of Education where he has also distinguished himself.

The book titled “Man, Environmental Safety and Sustainability: The Role of Research” is apt and an appropriate memento to a quintessential plant scientist who from inception reorganized the relationship between plants and the environment. The environment determines to an appreciable level the growth, development and health of plants and in return the plants moderate and purify the environment and also provide food and raw materials for man and other animals. In his academic career that spanned over three and half decades, Prof. Ohazurike has ably devoted his research and publications on plant health and environment problems such as climate change, deforestation, global warming, waste management, environmental impact assessment, biodiversity studies, pollution, erosion and other forms of environmental degradation.

Today our environment has experienced steady degradation as a result of mans' reckless and unplanned economic activities (industrial, agricultural, infrastructural transportation etc). These activities which have dislocated the equilibrium of the ecosystem are not undesirable but have been recklessly carried out in an unplanned and unsustainable manner with little or no consideration for the attendant consequences on the environment. Environmental conservation is not just keeping our environment clean by clearing litters or leaving our forests untouched but rather the ability and willingness to strike a balance between our economic activities and sustaining the fragile stability of our ecosystems.

The organizers carefully created subthemes that directly or indirectly cover critical components of the environment with the aim of aggregating different shades of opinion and ideas in achieving

environmental safety and sustainability in a book that consists of thirty-two chapters. Though several chapters in the book seem technical, they still derive their foundation from the environment as living organisms constitute the biotic component of the environment. I congratulate Professor N.C. Ohazurike for an honour well deserved, the contributors of the chapters for their effort and the organizers and editors for their love. The book is strongly recommended to all who appreciate the value of healthy plants and environment.

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16th July, 2023

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