



UNIVERSITY
OF GHANA

INAUGURAL LECTURE

Prof. Samuel Nii Ardey Codjoe

*B.A. Geography and Resource Development (University of Ghana);
MPhil Human Geography (University of Oslo);
PhD Geography and Soil Sciences (University of Bonn); FGA
Pro Vice-Chancellor, Research, Innovation and Development*



Topic:

**Reading the Skies and Healing in the Land:
Climate, Indigenous Knowledge and Health**

Date: Thursday, August 13, 2026

Time: 5:00 p.m.

Venue: Great Hall

ASPIRATION

To transform lives and societies through unparalleled scholarship, innovation and result-oriented discoveries.

VISION

To achieve global impact through innovative research, teaching and learning, using a technology-driven and people-centred approach.

MISSION

To create an enabling environment that makes the University of Ghana increasingly relevant to national and global development through cutting-edge research and quality teaching and learning.

CORE VALUES

Integrity

We demand the highest standards of ourselves to earn the trust of others.

Commitment

We are committed to knowledge generation that positively impacts the lives of those within and outside our university community.

Respect

We provide others with a world-class experience that demonstrates our value for the diversity and contributions of members of our community.

Loyalty

We are committed to giving back selflessly to our university.



Inaugural Lecture

by

Prof. Samuel Nii Ardey Codjoe

Topic:

Reading the Skies and Healing in the Land:
Climate, Indigenous Knowledge and Health

Chairperson:

Professor Nana Aba Appiah Amfo
Vice-Chancellor

ORDER OF PROCEEDINGS



- 4.30 p.m.
- **Arrival/Seating of Guests**
 - **Procession**
 - **Welcome Remarks/
Introduction of Chairperson:**
Mr. Michael Opare Atuah, Registrar
 - **Introduction of Lecturer:**
Professor Nana Aba Appiah Amfo
Vice-Chancellor
 - **Seperewa**
Mr. Osei Korankye
 - **Inaugural Lecture:**
Prof. Samuel Nii Ardey Codjoe
 - **Musical Interlude:**
Ghana Dance Ensemble
 - **Presentations**
 - **Chairperson's Closing Remarks:**
Professor Nana Aba Appiah Amfo
Vice-Chancellor
 - **University Anthem**
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 - **Recession**
 - **Reception**

ABSTRACT



Climate change is a major environmental and health challenge affecting livelihoods, food security, and wellbeing. This lecture, *Reading the Skies and Healing in the Land: Climate, Indigenous Knowledge and Health*, examines links between climate change, indigenous knowledge, disease patterns and healthcare in Ghana. It argues that effective adaptation requires integrating scientific evidence with local knowledge to strengthen climate monitoring, disease prevention and resilient health systems.

A central theme of the lecture is the importance of indigenous knowledge systems in climate monitoring and adaptation. Indigenous knowledge represents place-based observations, practices and understandings developed over generations through continuous interaction with the natural environment. When communities "read the skies", they draw on a rich body of indigenous environmental knowledge, turning clouds into calendars, to anticipate seasonal changes, protect livelihoods and safeguard their health. Furthermore, communities often "read the skies" by observing environmental indicators such as cloud formations, moon phases, frog sounds, bird movements, ant behaviour, sea conditions and fish harvests to predict rainfall and seasonal changes. Such knowledge remains invaluable because it is locally grounded, culturally relevant, livelihood embedded and accessible to community members. This lecture demonstrates that in settings where scientific meteorological information is limited, indigenous forecasting systems continue to play an important role in environmental monitoring and decision-making.

In Ghana, climate change is often understood through observable changes in weather, rainfall and temperature. Indigenous expressions in Akan, Ga and Ewe reflect local interpretations of environmental change. Communities commonly attribute climatic shifts to deforestation, bush burning, charcoal production, pollution, sand winning and the decline of traditional environmental practices. Some also view climate change through spiritual lenses. While these explanations highlight important local environmental concerns, they often overlook the historical contribution of industrial emissions from developed countries, potentially leading communities to assume responsibility for changes largely driven by global processes.

In the view of communities, climate change produces both benefits and challenges for populations and livelihoods. Increased rainfall can support agriculture, fisheries, irrigation, domestic water supply and hydropower generation. High temperatures may enhance solar energy production, salt extraction and crop/fish drying. However, excessive rainfall frequently leads to flooding, soil erosion, destruction of farms and property, human displacement, and outbreaks of diseases such as cholera, typhoid and malaria. Extreme heat contributes to droughts, bushfires, reduced fish catches, water shortages and heat-related illnesses. These impacts are increasingly evident in recurrent floods, droughts and tidal waves affecting vulnerable communities, particularly in coastal areas such as Accra, Ada and Keta.

The lecture also examines the lived experiences of climate change, particularly extreme heat and flooding. Research conducted in Accra and Tamale found that indoor temperatures in homes, workplaces and public institutions can be significantly higher (10°C) than those recorded by meteorological stations. Some indoor environments exceeded 48°C, while temperature in a blacksmith workshop reached over 60°C. These findings suggest that conventional weather measurements may underestimate actual human exposure to heat. Excessive temperatures affect health, sleep quality, productivity and agricultural activities while also contributing to biodiversity loss. Suggested adaptation measures include improved building ventilation, tree planting, ceiling insulation, alternative roofing materials and climate-responsive architectural designs.

Flooding remains one of the most serious climate-related hazards in urban Ghana. Low coastal elevations, inadequate drainage infrastructure, unplanned settlements and poor waste management combine to increase flood risks. Research in Accra revealed a pattern of mistrust among stakeholders, with communities, government agencies and private actors often blaming one another for flooding events. The lecture argues that more effective flood management requires collaboration among local authorities, traditional leaders, community organisations and formal government institutions. Integrating local institutions into planning processes can strengthen cooperation and improve adaptation outcomes.

The relationship between climate change and disease is another major focus. The lecture discusses schistosomiasis, a waterborne parasitic

disease that became more widespread following the construction of the Akosombo Dam. The dam created favourable conditions for the proliferation of host snails that transmit the disease. Community members associated rising temperatures and changing rainfall patterns with increased exposure, particularly through contact with rivers and ponds. These findings highlight the importance of complementing biomedical interventions with local knowledge and expanding prevention programmes to vulnerable populations.

The lecture also examines Cerebrospinal Meningitis (CSM) in northern Ghana. Communities identify factors such as rising temperatures, drought, dust, dehydration, overcrowding and poor ventilation as contributors to disease transmission. In response, they adopt a range of adaptation measures, including mass vaccination campaigns, improved housing design, cleaner cooking technologies, sleeping in well-ventilated spaces, afforestation initiatives and the protection of sacred groves. These examples demonstrate how communities blend traditional practices and modern interventions to address climate-related health threats.

Climate change also poses growing challenges for healthcare systems. Hospitals in cities such as Accra and Tamale increasingly face extreme heat, flooding, water shortages and power disruptions. High indoor temperatures affect healthcare workers, reduce patient comfort and threaten the safe storage of medicines and vaccines. Flooding can damage infrastructure, interrupt access to healthcare services and increase patient numbers during disease outbreaks. To strengthen resilience, the lecture recommends climate-sensitive hospital design, improved ventilation, enhanced drainage systems, elevated infrastructure, renewable energy technologies, contingency plans for power outages and early warning systems for floods and heatwaves.

Overall, the lecture demonstrates that climate change is not merely an environmental issue but also a health challenge with social, cultural and economic dimensions. Indigenous knowledge offers valuable insights into climate observation, adaptation and resilience, while community perceptions shape responses to climate-related risks. Integrating scientific knowledge with local understandings provides a comprehensive approach to strengthening health systems, improving adaptation strategies and building resilient communities in Ghana and across Africa.



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PROFILE



Background, Education and Academic Progression

Professor Samuel Nii Ardey Codjoe is a distinguished Professor of Population Studies at the Regional Institute for Population Studies (RIPS) and currently serves as Pro Vice-Chancellor for Research, Innovation and Development, University of Ghana. He is the immediate past Provost of the College of Education, a Fellow of the Ghana Academy of Arts and Sciences and a Visiting Fellow at the Institute of Advanced Studies, Loughborough University, United Kingdom.

His educational journey began at Christian Nursery School, Teshie and continued through Radiantway Preparatory School, Suhum Secondary Technical School and Swedru Secondary School. He earned a Bachelor of Arts degree in Geography and Resource Development from the University of Ghana. After graduation, he worked with the Population Impact Project (PIP), contributing to advocacy programmes on family planning, adolescent reproductive health, harmful traditional practices and population policy. He also participated in activities that supported the revision of Ghana's 1969 Population Policy and the establishment of the National Population Council Secretariat.

Professor Codjoe later obtained an MPhil in Human Geography from the University of Oslo, Norway and a PhD in Geography, with a minor in Soil Science from the University of Bonn, Germany, under a prestigious international scholarship programme. He has also completed several professional programmes in administration, natural resource management, GIS and remote sensing, climate modelling, econometrics, development studies, research communication and doctoral supervision.

He joined the University of Ghana as a Lecturer in 2004 and progressed rapidly through the academic ranks, becoming Senior Lecturer in 2008, Associate Professor in 2011 and Full Professor in 2015. He subsequently served as Deputy Director and Director of RIPS and later as Vice-President and President of the Union for African Population Studies (UAPS).

Leadership at RIPS and the Union for African Population Studies

As Director of RIPS from 2012 to 2018, Professor Codjoe provided strategic leadership that strengthened the Institute's research capacity,

financial sustainability and international reputation. He expanded funding sources by attracting support from both traditional and non-traditional donors, thereby increasing opportunities for research and postgraduate training.

A notable achievement was the strengthening of international partnerships, particularly with the University of North Carolina's Carolina Population Center, which created doctoral research residency opportunities and enhanced international exposure for students. Under his leadership, postgraduate enrolment increased significantly, especially among international students, further positioning RIPS as a leading centre for population studies in Africa.

Professor Codjoe also introduced measures to strengthen research quality and student support. These included the establishment of a Quality Assurance Committee, operationalisation of the RIPS Endowment Fund to support doctoral training, provision of dedicated office facilities for PhD students, investment in staff development and improvement of teaching and research infrastructure.

His leadership extended beyond the University of Ghana through his service to UAPS. As President, he led major institutional reforms and revitalised the organisation's finances and governance systems. Membership increased from about 1,000 to 2,000, while administrative efficiency and organisational effectiveness improved substantially.

He successfully restored donor confidence and secured support from organisations such as the Hewlett Foundation and the Bill and Melinda Gates Foundation. Through strategic fundraising efforts, he helped mobilise approximately US\$10 million to support the 7th and 8th African Population Conferences in South Africa and Uganda. He also introduced innovative membership payment systems, institutional membership schemes and scholarship initiatives that enhanced sustainability and support for emerging African scholars.

Research Leadership, Scholarship and Community Impact

Professor Codjoe has built an outstanding reputation as a research leader in climate change, population dynamics, migration, health, food security and sustainable development. He established and led a highly productive Climate Change Research Group at RIPS and has served as Principal Investigator or Co-Investigator on 25 major national and international research projects. Through these projects, he has helped

attract nearly US\$40 million in research funding to the University of Ghana. His contributions have enhanced the University's profile as a leading institution in climate change and development research.

A strong advocate of mentorship and capacity building, Professor Codjoe has supervised and mentored 3 Research Fellows; 9 Postdoctoral Researchers; 35 PhD Candidates; 7 Experiential Learners; 15 MPhil Students and over 40 MA Students. Many of his former mentees now occupy influential positions in universities, international organisations and development institutions.

He has published extensively in leading international journals and consistently supported research development through scholarships, fellowships, seed grants, conference sponsorship and scientific writing initiatives. He also established platforms that promote intellectual exchange, including the RIPS Colloquia Series and co-convened seven Climate Change and Population Conferences in Africa between 2012 and 2019.

His research has translated into practical benefits for policy and communities. He led multidisciplinary expert teams in the preparation of policy briefs examining the impacts of climate change on malaria transmission and fisheries resources in Ghana, established a Climate Change Resource Centre, supported fish-smoking facilities for coastal communities, provided waste management infrastructure for vulnerable settlements, introduced climate change clubs and supervised drainage projects aimed at reducing flooding and improving public health. These initiatives demonstrate his commitment to ensuring that research contributes directly to societal development.

Leadership as Provost of the College of Education

As Provost of the College of Education, Professor Codjoe championed transformative growth in research, academic development, infrastructure and institutional visibility. During his tenure, externally funded research grants increased more than threefold to approximately US\$900,000, while the number of active grant holders doubled.

He led the establishment of the Legon Centre for Education Research and Policy and promoted collaborative research through departmental and inter-college teams. He also secured the College's first major externally funded research projects and strengthened scientific writing and research capacity-building programmes.

His commitment to faculty development produced remarkable results. The number of professors in the College increased from three to eighteen, while the number of Research Fellows quadrupled. Student support systems were strengthened and the College of Education Scholarship Programme was introduced to improve educational opportunities and student success.

To foster a culture of excellence, Professor Codjoe introduced the College Awards Ceremony and Pen Ceremonies to recognise academic achievement and professional advancement. He also invested in administrative staff development through sponsorship for further education and professional training.

Major infrastructure accomplishments included the development of the Digital Youth Village and Centre for Digital Youth Development, completion of a modern facility for the Tema Learning Centre, renovation of office complexes, improved internet connectivity, procurement of vehicles and enhanced management of University of Ghana Learning Centres.

Among his most significant achievements was the establishment of the Kumasi and Takoradi City Campuses, which expanded access to University of Ghana programmes. Through strategic partnerships, prudent financial management and stakeholder engagement, he strengthened the College's national profile and international visibility.

Service, Recognition and Personal Life

Professor Codjoe has rendered extensive service to the University of Ghana through leadership and membership of numerous committees, boards and governance structures. He has chaired major committees on governance reforms, investigations, infrastructure, security, strategic planning, appointments and promotions and student affairs, contributing significantly to institutional development over more than two decades.

Beyond the University, he has served on several national, continental, and international bodies, including the Ghana Tertiary Education Commission, Accra College of Education Council, the Africa Climate Mobility Initiative and the United Nations Economic Commission for Africa's Climate Research for Development initiative. He has also contributed to scientific and advisory committees focusing on climate change, population studies and sustainable development.

His international reputation is reflected in his service as an editor and editorial board member for leading journals, including *Regional Environmental Change*, *PLOS Climate* and *Frontiers in Climate*. His expertise has also been sought for programme accreditation, doctoral examinations, academic promotion reviews and international scientific assessments, including those associated with the Intergovernmental Panel on Climate Change (IPCC).

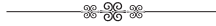
An accomplished teacher and trainer, Professor Codjoe has taught doctoral, master's and professional courses in population studies, climate change, migration, research methods and policy analysis both within and outside Ghana. His training and capacity-building initiatives have strengthened research and professional competencies across Africa and beyond.

His achievements have earned him numerous honours, fellowships, scholarships and awards, including the IUSSP Junior Demographer Prize, the Best Researcher Award for the Social Sciences at the University of Ghana, prestigious scholarships from Germany and Norway and several awards recognising leadership and service.

Born to Mr. James Emmanuel Kwaku Codjoe (deceased) and Madam Regina Naa Ayikuorkor Aryee, Professor Codjoe is married to Mrs. Gertrude Akosua Nyantekyiwaa Addai-Codjoe and they have five children: Marilyn Adjoa, Carl Nii Sersah, Kelvin Nii Ardey, Brian Nii Baah and Kaitlin Naa Ayikuorkor. He is an active member and Marriage Counsellor of Living Streams Baptist Church and enjoys football, tennis and motorcar racing.

Overall, Professor Samuel Nii Ardey Codjoe's career exemplifies excellence in scholarship, research, mentorship, leadership, public service and institutional transformation, establishing him as one of Africa's most accomplished scholars and higher education leaders in population studies, climate change research and sustainable development.

UNIVERSITY ANTHEM



Hail University of Ghana
The nation's hope and glory
The place that bears the star of peace
That bids us all to do our best
Let the great Tower of learning
Inspire both young and old
May we proceed in unity to uphold the public cause.

//: Arise, arise O Legon
Defend the cause of freedom
Proceed in truth and integrity to make
Our nation proud: //

We ask for strength and wisdom
As we climb the hill of learning
May we excel in what'er we do
As we prepare to face the world
With a mind ready at all times
And a conscience quick to feel
May we proceed in unity to uphold the public cause.

//: Arise, arise O Legon
Defend the cause of freedom
Proceed in truth and integrity to make
our nation proud ://

(Prof. Emeritus J. H. Kwabena Nketia)
(1921-2019)



UPCOMING EVENTS

26th August, 2026	Ghana Higher Education Summit <i>Topic:</i> Universities at Crossroads: Charting Sustainable Funding Pathways for Inclusive Higher Education <i>Venue:</i> Cedi Conference Centre, UG <i>Time:</i> 9:00 a.m.
27th August, 2026	Inaugural Lecture by Professor Kwadwo Appiagyei-Atua <i>Topic:</i> The Student Question: Reclaiming Academic Freedom for Democratic Renewal in Africa <i>Venue:</i> Great Hall <i>Time:</i> 5:00 p.m.
9th September, 2026	Interview on Research and Innovation Agenda on Radio Univers 105.7 F.M. <i>Guest:</i> Professor Samuel Nii Ardey Codjoe <i>Time:</i> 9:00 a.m

twisco

Chocolate Food Drink

VITAMIN C

CALCIUM

VITAMIN D

VITAMINS B2, B3, B6, B12

IRON

PHOSPHORUS

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ENERFORT
B C U
Energy Food Drink
Rich in Nutrients at Every Sip

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ENERFORT
B C U
Energy Food Drink
Rich in Nutrients at Every Sip

Consume with Milk

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