

**PROPOSAL TO BE A HOST INSTITUTION FOR
THE AFRICAN CLIMATE CHANGE FELLOWSHIP PROGRAM:**

UNIVERSITY OF GHANA

Introduction:

Available information confirms that Africa is one of the most vulnerable continents to climate change because of the range of projected impacts, multiple stresses and low adaptive capacity. By 2020, it is expected that up to 250 million people in Africa would be exposed to increased water stress due to climate change, resulting also in 50% reduction in rain-fed agricultural yields (IPCC, 2007). This would adversely affect food security and exacerbate malnutrition. With regards to coastal states in Africa, the IPCC (2007) report indicated that millions of people are expected to experience floods every year due to sea level rise, and the impact would be severe in low lying coastal areas. The cost of adaptation could amount to at least 5 to 10% of GDP.

The African Climate Change Fellowship (ACCF) programme that aims to enhance indigenous capacity in Africa for climate change adaptation is therefore very timely, and fits within the University of Ghana's mission that seeks to develop human capability to meet global challenges.

1. PROPOSING HOST INSTITUTION (LEAD INSTITUTION)

Name of Institution	University of Ghana
City and country of location	Legon, Accra. Ghana
Type of Institution	Academic
Primary mission of institution	Education, Teaching/Learning, Research and knowledge dissemination
Secondary missions of institution	Contribution to national development, community outreach and extension, support services
Main Thematic Areas of Work	Sciences, Agriculture, Medicine, Social Studies, Arts, Law, Business Studies, Cultural Studies and Information Technology
Working Languages of the institution	English (however, the University's strength in the teaching of modern languages make it possible for non-English speaking fellows to operate effectively within the university).

2. PROPOSAL LEADER

Name	Prof. Yaa Ntiamoa-Baidu
Title	Dean, School of Research and Graduate Studies
Mailing address	University of Ghana School of Research and Graduate Studies P. O. Box LG571, Legon, Accra, Ghana
Telephone Number	+233-21-513727, +233-21-500793
e-mail address	dsrgs@ug.edu.gh ; ynbaidu@ug.edu.gh ;

KEY PARTICIPATING DEPARTMENTS/UNITS OF THE UNIVERSITY OF GHANA

- | | |
|---|---|
| (i) Name of Unit | Department of Geography and Resource Development |
| Main Thematic Areas of Work | Climatology, Geomorphology, Remote sensing/GIS, Rural resource Development, Cartography, Transportation, Gender Studies, Urban studies and regional development |
| Name and title of principal contact person | Prof. A. B. Asiedu, Head of Department |
| E-mail address of principal contact person | abasiedu@ug.edu.gh |
| (ii) Name of Unit | Department of Oceanography and Fisheries |
| Main Thematic Areas of Work | Coastal zone management, marine ecosystem assessment, fisheries management and marine biodiversity conservation |
| Name and title of principal contact person | Dr. George Wiafe, Head of Department |
| E-mail address of principal contact person | wiafeg@ug.edu.gh |
| (iii) Name of Unit | Environmental Science Programme |
| Main Thematic Areas of Work | Environmental quality (aquatic, atmospheric and terrestrial environments), Environmental conservation, environmental impact assessment |
| Name and title of principal contact person | Prof. Daniel K. Attuquayefio, Programme Coordinator |
| E-mail address of principal contact person | danattu@msn.com |
| (iv) Name of Unit | College of Agriculture and Consumer Science |
| Main Thematic Areas of Work | Agribusiness, agricultural economics, food security, crop science, climate variability and impact on crop production, soil science |
| Name and title of principal contact person | Prof. Kwadwo Ofori |
| E-mail address of principal contact person | kofori@ug.edu.gh |

3. COLLABORATING INSTITUTION

Name of Institution	Centre for African Wetlands
City and country of location	Legon, Accra. Ghana
Type of Institution	Research and Training Centre
Primary mission of institution	Research, training, advocacy and networking to enhance capacity for wetland science and wetland management
Secondary missions of institution	Management and conservation of African wetlands, with current focus on twelve west African countries
Main Thematic Areas of Work	Wetlands ecology, wetland inventory and valuation, wetland biodiversity, impact of climate change on wetland ecosystems and hydrological cycles, integrated water resource management.
Working Languages of the institution	English and French
Name and title of principal contact person	Prof. W. A Asomaning, Director (Operations)
E-mail address of principal contact person	afriwet@ug.edu.gh

4. FELLOWSHIP EXPERIENCE OFFERED

As an academic institution, the University of Ghana has been receiving visiting professors/lecturers for over 60 years. Visiting professors/lecturers/research fellows undertake teaching and research for fixed periods of time. Such visiting professors become integrated into the University community; they are housed within the University's guest accommodation or designated facilities in the halls of residence. They have the opportunity to initiate or join in ongoing research programmes in collaboration with colleagues in the Faculty/Departments that invited them. They also may be assigned specific courses to teach in their area of specialization. In addition to teaching and research, the visiting fellows may also be involved in the wider university outreach programme through public seminars and lectures. It follows therefore that the University of Ghana and its participating Departments/Units have the capacity, resources and experiences to host Fellows in all the four types of Fellowships proposed under the programme, i.e., policy fellowships, doctoral fellowships, post doctoral fellowships and teaching fellowships. In addition to the four key participating units named above, the University's Social Policy Group and Political Science Departments also offer opportunities for analyses of vulnerability, impacts of climate change on communities and policy.

It is anticipated that each Fellow accepted by the Programme would have developed a general programme of work for the duration of the Fellowship. The University of Ghana, with its Collaborating Institutions would seek to maximize both the experience and exposure of the Fellow to the Ghanaian situation and also seek to maximize the benefits that the University would obtain from having Fellows on campus. The experiences fall under three headings, Research, Teaching and Training/Meetings/workshops.

4.1. Research

The ACCF would be embedded into the research activities of the various Departments and Units outlined in this proposal, the University of Ghana has several relevant on-Campus Laboratories and Centres such as the Ecological Laboratory, the Biotechnology Centre, the Noguchi

Memorial Institute for Medical Research, Centre for Social Policy Analysis etc. The off-campus Laboratories and Centres include three Agricultural Research Institutes found in different climatic zones, riverside laboratories on the Volta River, and in partnership with Collaborating Institutions access to varied ecosystems from wetland ecosystems in the western part of the country to semi-arid areas in the northern parts of the country.

Depending on the skills set of a particular ACCF, an invitation to engage in Commissioned Research could be extended. The University of Ghana is part of a consortium of four African Universities and the London School of Hygiene and Tropical Medicine funded with a \$40,000,000 grant from the Bill and Melinda Gates Foundation for the establishment of Centres for the treatment and control of malaria. Other examples of research projects and programmes at the University of Ghana are: the African Regional Post-graduate Programme in Insect Science (ARPPIS) funded with about \$250,000 to date by the German Academic Exchange Programme (DAAD); the Multi-Centre Growth Reference Study funded by the World Health Organization (ca. \$450,000); the United Nations University project on People Land and Environment Change (\$318,640) and the Norwegian Universities Research Fund (NUFU) support to the Institute of African Studies of around \$500,000 for the Globalization and changes in the cultures of survival and care project.

4.2. Teaching and Auditing of Lectures

The ACCF would be expected to give a series of Guest Lectures to specific groups of people within the University of Ghana, these may be to members of staff of the unit assigned or to a graduate class. In some instances, given sufficient lead time to go through the approval processes an ACCF could be asked to take up a module of a regular course in a Department.

The University of Ghana is famous for its set of annual public seminars and colloquia. The ACCF would have access to all of these meetings as well as access to public lectures organized by the Ghana Academy of Arts and Sciences. The various Faculties of the University organize annual colloquia and the ACCF would be given the opportunity to present their research to the wider public through such fora.

The University of Ghana runs a very extensive graduate programme, covering practically all disciplines in higher learning. With consultation between Departments and the School of Research and Graduate Studies, Fellows would be given the opportunity to audit University of Ghana courses that are of interest to them.

4.3. Training, Meetings and Workshops

The ACCF would also have the opportunity to engage in training activities related to climate change that are organized by the University of Ghana. These would include acting as Resource Persons or as participants during Short Courses and Training Workshops linked to Climate Change. They would also take part in University of Ghana student field trips, with the aim of giving them greater opportunity to travel within Ghana but more importantly giving Ghanaian students the opportunity to interact with an international scholar. If Senior Scientists take up the opportunity opened up by the Fellowships, it is possible that they could serve as *ad hoc* members of Graduate Supervisory Committees at the Masters (MA, MPhil) Degree Level. Staff of the University of Ghana are regularly invited to attend Workshops and meetings organized by Government and Donor agencies, the ACCF would be invited whenever possible to attend such meetings with Observer Status.

4.5. Logistic Support

In order for the ACCF to function effectively, there needs to be an enabling environment within the University of Ghana that would create the right "climate" for concentrated work. As mentioned above, on-campus residential facilities would be made available to the Fellows as well as access to Senior Common Rooms of residential halls.

At the Departmental level, working space in the office would be created as well as access to ICT facilities such as broadband internet access. Within reasonable limits, the Fellows would be able to use department support services such as Secretarial and Technical staff. In certain circumstances a National Service Person (Tertiary level graduate) could be assigned to the Fellow to assist in either research work or help with possible cultural adaptation.

At the University level, the Fellow would be granted access to the University of Ghana Balme library and its on-line databases. The Fellow would benefit also from the University of Ghana Security Services as a matter of course.

5. ADMINISTRATIVE AND COST ISSUES

Number of Fellows: The University of Ghana has the potential to host several African Climate Change Fellows, at any given time, on a University-wide scale, the number of visitors, guest fellows/researchers would be in the region of 10 - 25. However as this is a new programme the expectation would be to start with up to six Fellows with the aim not to have more than one Fellow in any given Department. The number could increase as the programme becomes more established.

Datelines for Assumption of Fellowships: The University can receive Fellows at any time. However the University of Ghana partially shuts down during the first three (3) weeks of the month of July, to enable people to take their annual leave. The last two weeks of December and the last two weeks of May are devoted to general University examinations so prospective Fellows would be advised to avoid starting their fellowship attachment during these periods if possible

Estimate of Living Costs: This does depend on the lifestyle that the Fellows choose to lead but in general the following figures may be used to guide budget allocation.

Item	Rate/notes	Monthly Cost US\$
Accommodation	A wide range depending on facilities provided, the University Guest House charges US\$ 50 per night, hostels/flats charge between US\$25-40 per day*	500 - 1,500
Meals	US\$ 20/day (including bottled water)**	600
Transportation		100
Telephone		100
Incidentals		200
Total		US\$1,500-2,500

* The University Guest House provides serviced air-conditioned bed-sitters and one or two bedroom apartments. Availability of other options depends on how much lead time we have before Fellows arrive.

** Based on the assumption that the Fellow will be buying all meals and NOT be cooking.

University costs for Hosting Fellows: The University of Ghana has standard charges for the hosting of International Staff (see the University webpage www.ug.edu.gh for most recent rates) as follows:

Item	Fee US \$
Research Affiliation	600
Occasional Student	700

In addition to the standard charges above, the School of Research and Graduate Studies will charge direct costs for coordination and supervision of Fellowship programme and for administering the grants.

Other University of Ghana Requirements: There are no special University of Ghana requirements for Visiting Fellows that are different from other institutions of higher learning. It is expected that the Fellows would have sufficient knowledge of the working language of the University i.e., English. Fellows should not have a Criminal Record and are expected to be of sound mind, medically fit and free from infectious diseases. Fellows should have passports which would be valid for the entire duration of their stay in Ghana and must have satisfied all the relevant immigration requirements. Fellows should have also purchased appropriate Medical and Travel insurance in their home countries covering the entire period of their stay before arriving in Ghana

6. QUALIFICATION OF THE HOST INSTITUTION

6.1 Institutional Capacity

The University of Ghana is the premier university in Ghana, with a mission to develop world-class human resources and capabilities to meet national development needs and global challenges, through quality teaching, learning, research and knowledge dissemination. Established in 1948 as a University College of the Gold Coast, the University gained independent status in 1961 to become the University of Ghana, with the authority to award its own degrees.

The University is a member of the International Association of Universities (IAU), the Association of Commonwealth Universities (ACU) and the Association of African Universities (AAU). The University is also a member of the League of World Universities. In addition to these, the University has established academic and research links with several Universities and Research Institutions worldwide and has links with external groups such as the Norwegian Universities Committee for Development of Research and Education (NUFU), the Council for International Educational Exchange (CIEE) based in New York, the International Student Exchange Programmes (ISEP) and the Commonwealth Universities Study Abroad Consortium.

The University of Ghana is organized around Colleges, Faculties, Institutes/Schools and Centres of Research/Learning. The University's colleges/faculties that would be of particular relevance to the Climate Change Fellowship programme include the College of Agriculture that offers opportunities for research on impact of climate change on crop production and range management, the Faculty of science with a broad spectrum of departments ranging from natural science to nuclear science, the Faculty of Social Studies and the Business and Law Schools offering opportunities for research in the areas of social impacts of climate change on nations,

communities and businesses as well as policy and governance issue. In addition to the teaching and research faculties, a number of the University's centres of Research and learning such as the Legon Agricultural Research Stations, the Legon Centre for Migration Studies and Research, Centre for Remote Sensing and Geographic Information Systems, Ecological Laboratory, Centre for Social Policy Studies, the Noguchi Memorial Institute for Medical Research and the School of Public Health, all offer excellent opportunities for fellows of the African Climate Change Fellowship Programme.

The University offers undergraduate and postgraduate programmes for a student population of over 28,000, including over 1,200 foreign students. With an academic and research staff strength of over 800, the University has very high caliber and experienced faculty with expertise in a wide range of subject areas in both the humanities and sciences that we can draw on to ensure the success of the programme.

The University's School of Research and Graduate Studies will coordinate the hosting of visiting fellows. The School has the responsibility of coordinating all graduate level programmes and research activities in the University and is therefore in a good position to provide the leadership, coordination, supervision and reporting required for the Fellowship programme.

6.2 Project Experience

Almost all units of the University are actively engaged in multiple local, regional and global programmes funded from various sources that will provide opportunity for engagement by fellows as may be relevant. A selection of relevant initiatives are outlined below.

(i). Impact of climate change on the Gulf of Guinea upwelling:

There are two upwelling phenomena in the Gulf of Guinea (a minor and major event alternating with periods of hydrographic stability). Both events have their centres off Ghana and Cote d'Ivoire. Time-series analysis has confirmed rising sea surface temperature associated with global climate change, especially during the major upwelling. The warming of the ocean was considered to be a factor in the reduction of upwelling intensity, thereby resulting in decline in fish abundance. Zooplankton production (i.e. fish food), has been on a decline as a result of ocean warming and this could influence fish recruitment. This ultimately, would impact food security, nutrition and health in the region, since over 60% of animal protein is from fishery resource.

This project is investigating the upwelling phenomenon which is not well understood in this region. As one of five nodes of a EU-funded DevCoCast Project in Africa, the Department of Oceanography and Fisheries is carrying out studies on the impact of climate change on the Gulf of Guinea upwelling using a suite of in-situ sensors and satellite remote sensing. It is expected that ecosystem functioning of various trophic levels, under prevailing climate change conditions, would be ascertained from the studies.

(ii). Climate change, sea level rise and coastal erosion:

Led by the Department of Oceanography and Fisheries, with funding from the Office of Naval Research of the United States Navy, and implemented in partnership with institutions in the United States and the Netherlands, this project will focus on a comprehensive assessment of

coastal erosion along the coast of Ghana. Coastal erosion has affected the social and economic lives of coastal dwellers in Ghana, threatened cultural heritage sites, nesting sites of endangered marine turtles, and hindered coastal tourism development. Coastal retreat has also eroded fish landing sites, collapsed small scale industries and degraded the coastal environment. The experience is similar in many parts of sub-Saharan Africa. A suite of field instruments, complemented by remote sensing data, would provide necessary information for investigating oceanic processes influencing sediment transport and deposition along the coastal areas of Ghana, and 3D-modelling, while accounting for uncertainties in climate change influences. The project is expected to begin in October, 2008 to 2011.

(iii) Assessment of Marine Productivity and Biodiversity

The Guinea Current Large Marine Ecosystem (GCLME) Regional Centre for Productivity and Biodiversity is hosted by the University of Ghana, in the Department of Oceanography and Fisheries. The GCLME is one of the most productive ecosystems of the world's oceans and it is bordered by 16 West African countries, from Guinea Bissau to Angola. The Productivity and Biodiversity Centre is responsible for carrying out large-scale monitoring of marine biodiversity through a combination of process-studies, continuous plankton recorder surveys using ships-of-opportunity, modelling and retrospective analysis, in order to understand influence of physical processes on marine ecosystem dynamics for the improvement of ecological forecasts. There is also an activity on early warning of harmful algal bloom.

As part of the large scale monitoring, the Centre also participates in the Global Drifter Programme where over 3000 satellite-tracked surface drifting buoys have been deployed to measure currents, sea surface temperature, atmospheric pressure, winds and salinity (<http://www.aoml.noaa.gov/phod/dac/gdp.html>). Fellows will benefit from a wide range of experience including deployment of drifter buoys at sea and data analyses, analysis of marine plankton and benthic fauna, processing of wide range of satellite imageries (e.g. MERIS, MODIS, AVHRR). The activities of the Centre are supported by the University of Ghana, the Interim Guinea Current Commission, UNIDO, UNEP, UNDP and US-NOAA under the GEF-funded GCLME project.

(iv) Toolkit for the sustainable management of Ghana's riverine biodiversity

This is a collaborative project that seeks to develop tools for improving the sustainable management of riverine ecosystems. It is implemented by the Centre for African Wetlands in partnership with two units of the University of Ghana, the Ghana Water Research Institute, the Ghana Wildlife Society and the Institute for Sustainable Water, Integrated Management and Ecosystem Research, (SWIMMER) at the University of Liverpool, UK.

The key activities undertaken under the project include taxonomic capacity building, assessment of the status of existing aquatic biodiversity and the development of practical tools to use in the management of rivers. The project has contributed to building regional capacity, through training workshops benefiting scientists and conservation practitioners from Ghana, and other west African countries including Burkina Faso, Nigeria, Cote d'Ivoire, Togo and Benin in freshwater taxonomy and the Ecosystem Approach. The fact that a core of professionals from different countries has been trained in similar methods will help to harmonize efforts within the region, especially in the case of managing trans-boundary drainage basins. In addition to enhancing scientific capacity, the project has resulted in an increased engagement of local stakeholders in decision-making about the management of riverine systems in their districts and

enhanced environmental awareness throughout the selected communities. Specific outputs from the project include a set of nested indicators of ecosystem health that can be adapted for use within other African countries and educational materials for users at various levels of expertise.

(v) The Sustainable Land Management for Mitigating Land Degradation, Enhancing Agricultural Biodiversity and Reducing Poverty in Ghana (SLaM)

This project is implemented by a consortium of scientists and institutes led by the University of Ghana, with funding from the Global Environment Facility through the UNDP and seeks to address sustainable land management issues to stem accelerated land degradation, biodiversity loss and climate warming. The goal is to contribute to sustainable ecosystem-based integrated land management in globally, nationally, and locally significant land resources in agricultural areas under threat of land degradation. The ultimate goal is to promote greater ecosystem stability, enhanced food security and improved rural livelihoods.

The expected outcomes from the project include:

- the development and implementation of a participatory methodological framework for identifying and prioritizing threatened lands, and criteria for identifying sustainable best land management practices plus land use;
- implementation of sustainable best land management practices to recover degraded lands, protect those under threat, and enhance their ecological functions, agricultural production capacity and rural livelihoods improvements role,
- enhancement of capacity and enabling environment for mitigating land degradation and promoting sustainable land management.

6.3 Publication Record

A selection of relevant publications from University of Ghana faculty members are provided below

Arkaah, A.B., Kaminski, M., Ogle, N., Kalin, R.M., Atta-Peters, D., Apaalse, L., Wiafe, G., and Armah, A.K. (2006). Early paleogene climate and productivity of the eastern equatorial Atlantic, off the western coast of Ghana. *Quaternary International 148*: 3-7

Armah, A.K., Wiafe, G. and Kpelle, D. (2005): Sea Level Rise and Coastal Biodiversity in West Africa: A Case Study from Ghana. *in Climate Change and Africa*. (UNESCAP/Environment and Sustainable Development Division). (Ed.) Pak Sum Low, pp 204 - 217. Cambridge University Press. London

Asante, F.A., Engel, S. and Iskandarani, M. (2002). Water Security in the Ghanaian Volta Basin: Patterns, Determinants and consequences, *Quarterly Journal of International Agriculture*: Vol. 41, No. 1 / 2.

Botchie, G., Gyasi, E.A., Akabzaa T. and Sarpong D. (2006). Land Tenure, Land Use and the environment in Ghana. Technical Publication of institute of Statistical, Social and Economic Research. University of Ghana Occasional Paper, November.

Kurukulasuriya, P., Mendelsohn, R., Hassan, R., Benhin, J., Dressa, T., Diop, M., Mohamed Eid, H., Fosu, K.Y., Gbetibouo, G., Jain, G., Mohamadu, A., Mano, R., Kabubo-Mariara, J.,

- El-Marsafawy, S., Molua, E., Ouda, S., Ouedraogo, M., Sène, I., Maddison, D., Niggol, S. and Dinar, A. (2006). Will African Agriculture Survive Climate Change? *The World Bank Economic Review*, Vol. 20 No. 3, pp. 367-388
- Ofori-Sarpong, E. et al (2004). Sahelian Livelihoods on the Resound : A Critical Analysis of Rainfall Draught Index and Yields in Sahelian Agriculture. In: *The Importance of Climate Change on Drylands with focus on West Africa*. Eds. Dietz, A.J., Reuben, R, and Verhagen, A. 2004 pp 61-78.
- Ofori-Sarpong, E, et al (2004). Climate and Livelihood Change in North East Ghana. In: *The Importance of Climate Change on Drylands with focus on West Africa*. Eds. Dietz, A.J., Reuben, R, and Verhagen, A. 2004 pp 149-172.
- Ofori-Sarpong, E, et al (2004). Climate Change Preparedness in West Africa. In: *The Importance of Climate Change on Drylands with focus on West Africa*. Eds. Dietz, A.J., Reuben, R, and Verhagen, A. 2004 pp 403-409.
- Ofori-Sarpong, E. (2003). The impact of the 1997/98 El Nino event on Ghana. *Akuafu Hall Alumni Association Journal* Vol. 1 pp. 88-105, 2003.
- Sovoe, S., Wiafe, G., Kakane, V.C.K, and Attua, E.M (2006). Effect of climate change on primary productivity in the Gulf of Guinea: a remote sensing approach. *Journal of Ghana Science Association* 8(2): 71 – 76.
- Wiafe, G., Yaqub, B.H., Mensah, M., and Frid, C.L.J. (2008). Impact of climate change on long-term zooplankton biomass in the upwelling region of the Gulf of Guinea. *ICES Journal of Marine Science* 65: 318 – 324
- Wiafe, G. (2007). Assessment of productivity with regards to the carrying capacity of the Guinea Current Large Marine Ecosystem for living marine resources. *GLOBEC International Newsletter* 143:38

6.4 Experience in hosting Fellows

Several faculties of the University of Ghana have many years of experience hosting visiting lecturers and professors. Over 100 visiting lecturers and professors have been hosted in the past five years, including Fullbright Fellows. The table below gives the spread of visiting Fellows across the various Faculties within the last five years.

Unit within the University	Number of Fellows
Faculty of Science/Faculty of Engineering	58
College of Health Sciences	14
Faculty of Arts	19
College of Agriculture and Consumer Science	3
Faculty of Social Studies and other related Units	24

In addition to the visiting scholars, the University hosts several hundred international students every year. These range from students taking a year out of their studies for specific experiences at the University, to students undertaking sandwich programmes and graduate students spending various lengths of time for data collection. The University's Institute of Adult Education alone hosted 147 sandwich programme candidates within the 2006 and 2008 academic years

7. QUALIFICATION OF COLLABORATING INSTITUTION: THE CENTRE FOR AFRICAN WETLANDS (CAW)

7.1 Institutional Capacity

The Centre for African Wetlands (CAW) is a sub-regional initiative established in 2000 with the mandate to promote sustainable wetland management through facilitation of research (ecological, socio-economic and policy research), capacity building, information dissemination, networking, advocacy and policy support. The Centre currently works with focal points in 12 West African countries (Benin, Burkina Faso, Cameroon, Cape Verde, Cote d'Ivoire, Ghana, Guinea Bissau, Liberia, Mali, Mauritania, Nigeria, and Senegal) The Centre has placed major emphasis on promoting networking, collaboration and partnerships and has been a focal point for linking wetland scientists and managers in west Africa, as well as establishing partnerships with institutions in the United States and Europe. The Centre was appointed as the START Regional Node for Wetlands and Coastal Zone Management in 2005.

The Centre's current programme focus covers five main areas, namely:

- Wetland Inventory and Classification (mapping; hydrology and biodiversity);
- Long term wetland assessment and monitoring (focusing on ecological character, indicators and wetland values);
- Climate Change (impacts, adaptation & mitigation);
- Pollution/Degradation (biological & chemical pollutants, invasive and Exotic Species; Watersheds degradation; wetlands and health);
- Conservation and Utilization (local livelihoods; ecotourism; traditional knowledge systems; wetland laws and policy);

7.2 Relationship with the Host institution

The Centre is hosted by the University of Ghana through a special memorandum of understanding that enables the Centre to operate as an autonomous sub-regional institution. The Centre's offices and laboratory facilities are built on land provided by the University and the University remains the Centre's parent body. The Centre provides laboratory space and lecture hall for the University of Ghana's Environmental Science Students and also allows the use of its conference hall and auditorium for various university functions as and when needed. The Centre in turn draws on the expertise of various University of Ghana faculty who are formal Fellows of the Centre.

8. SUPERVISOR/MENTOR TEAM

Several University of Ghana Faculty members have indicated interest in supervising and mentoring Fellows of the African Climate Change Programme and the School of Research and Graduate Studies will match Fellows interest with the expertise available. The list provided below therefore included only the core team that will lead the programme and ensure its success (please see appendix 1 for full CVs of the members of the core team of mentors).

Name	Title/Inst. affiliation	Highest Degree	Areas of expertise	Fellows supervised in past 5 years
E. A. Gyasi	Professor, Univ. of Ghana	PhD (Wisconsin)	Environmental change, Land-use practices	4 PhDs; 15 MPhil, several visiting fellowships
George Wiafe	Senior Lecturer, Univ. of Ghana	Ph.D (UG)	Marine ecosystem assessments, GIS modeling of nutrient export; upwelling dynamics	4 MPhil
A. B. Asiedu	Associate Professor Univ. of Ghana	PhD (Hokkaido, Japan)	Environmental Planning, tourism	14 MPhil, 5 PhDs
Kwadwo Ofori	Associate Professor, Univ. of Ghana	PhD (Saskatchewan, Canada)	Plant Breeding; Biometry; Agronomy	2 MPhil, 3 PhD
Yaa Ntiamoah-Baidu	Professor, Univ. of Ghana/ CAW	PhD (Edinburgh)	Wetland ecology/biodiversity conservation	3 PhDs, 5 MPhil, 4 visiting researchers

9. INTEREST IN APPLICANT REVIEW

The University of Ghana would be interested to participate in the review of proposals from applicants interested in basing their Fellowship at the University.

Appendix 1: Curriculum Vitae of Core Supervisory/Mentoring Team

CURRICULUM VITAE OF PROF E. A. GYASI

A. SUMMARY

EDWIN AKONNO GYASI (Ph.D.) is a Professor of Geography and Resource Development, University of Ghana. Held substantive lectureship positions in Ghana and Nigeria. Visiting Fellow at the University of Canterbury, New Zealand, University of Sussex, Brighton UK, and Columbia University, New York.

Research centres on natural resources management and governance with emphasis upon:

- Environmental change
- Participatory methodologies
- Sustainable locally adapted agricultural land use practices.

Undertaken consultancy work for or lectured temporally at:

- World Bank
- IDRC
- UNU (United Nations University)
- UNESCO
- United Nations Centre for Human Settlements (Habitat)
- Friends of the Earth
- Conservation International
- IPGRI (International Plant Genetic Resources Institute, now Bioversity)
- Ghana's Environmental Protection Agency and Volta River Authority
- Third World Forum
- Drylands Development Centre (DDC) of the UNDP
- Ghana's Ministry of Environment and Science
- Police College, Ghana.

Served as Ghana's national focal point/person for an IPGRI project, *Community-based Management of On-Farm Plant Genetic Resources in Arid and Semi-Arid Areas in Sub-Saharan Africa*. Led and co-ordinated the West African component of the UNU (United Nations University) research project, *People, Land Management and Environmental Change* (Later modified to *People, Land Management and Ecosystem Conservation*) - PLEC. National Programme Co-ordinator, the follow-on mainly GEF-funded project, *Sustainable Land Management for Mitigating Land Degradation, Enhancing Agricultural Biodiversity and Reducing Poverty (SLaM) in Ghana*. Member, Nomination Committee, Darrell Posey Fellowship for Ethnoecology and Traditional Resource Rights. Member, Editorial Board, Journal of Mountain Science. Was Chairman, Management Board of the Volta Basin Research Project (VBRP), University of Ghana. Listed in the roster retained by UNEP as consultants to the Scientific and Technical Advisory Panel (STAP) of the Global Environmental Facility (GEF). Authored more than 70 scientific papers and other documents including consultancy reports. Travelled widely to carry out various professional assignments in over 40 countries within and outside Africa.

B. DEGREES

- B.A (1968), Geography (University of Ghana, Legon)
- M.S (1971), PhD (1975) - Geography [Minor: Agricultural Economics & African Studies] - (University of Wisconsin, Madison).

D. SUBJECT AREA AND RESEARCH INTEREST

GEOGRAPHY: Economic and Social Geography with special reference to natural resources management and governance, especially:

- Environmental change
- Participatory methodologies
- Sustainable locally adapted land use practices for food security and improved rural livelihoods in Sub-Saharan Africa.

E. SUBSTANTIVE EMPLOYMENT TRACK

- Professor, Geography & Resource Development, University of Ghana:1999 - Current
- Associate Professor, Geography and Resource Development, University of Ghana:1993-1999.
- Senior Lecturer, Geography & Resource Development, Univ. of Ghana:1988-1993
- Lecturer, Geography and Resource Development University of Ghana: 1986-1998
- Senior Lecturer, Geography, University of Port Harcourt:1981-1986
- Lecturer, Geography, University of Ghana:1975 -1981.

F. HONOURS (AWARDS, GRANTS AND FELLOWSHIPS)

- Visiting Scholar; Columbia University, New York
- Visiting Fellow, University of Sussex, U.K
- Visiting Centennial Fellow, University of Canterbury, Christchurch, New Zealand
- University of Ghana Research Grant
- African-American Scholars Council Ph.D. Research Grant
- Ford Foundation Research Travel Grant
- University of Ghana Post-Graduate Scholarship.

G. SELECTED PUBLICATIONS IN JOURNALS & TECHNICAL PUBLICATIONS

1. With others, *Environment and Land Tenure Nexus*, ISSER Technical Publication, University of Ghana. Forthcoming
2. With others, *Production pressure and environmental change in the forest-savanna zone of Southern Ghana*, **Global Environmental Change**, 5 (4), 1995, pp. 355-366
3. *The adaptability of African communal land tenure to economic opportunity: Example of land acquisition for oil palm farming in Africa*, **Africa**, 64:3, 1994, pp. 391-405
4. *Science policy priorities and implementation strategies in Sub-Saharan Africa: The experience of Ghana*, **African Development Review**, 4(1), 1992, pp. 87-101
5. *Emergence of a new oil palm belt in Ghana*, **TESG - Journal of Economic and Social Geography (JESG)** 83 (1), 1992, pp. 39-49.

H. BOOKS EDITED

- (Lead Editor), **Managing Agrodiversity the Traditional Way in West Africa: Lessons from West Africa in Sustainable Use of Biodiversity and related Natural Resources**, Tokyo: United Nations University Press, 2004
- (Lead Editor), **Environment, Biodiversity and Agricultural Change in West Africa: Perspectives from Ghana**, Tokyo: United Nations University Press, 1997.

I. SELECTED CHAPTERS IN BOOKS

1. *Traditional systems of conserving biodiversity within agriculture: Their changing character and relevance to food security*, in Brookfield, H., C. Padoch, H. Parsons and M. Stocking (eds.) **Cultivating Biodiversity: Understanding, Analyzing and Using Agricultural Diversity**, London: ITDG Publishing, 2002, pp. 245 - 255
2. (With others), *Population, land-use and the environment in a West African savanna ecosystem: An approach to sustainable land-use on community lands in northern Ghana*, in Barbara Sundberg and William. R. Moomaw (eds.) **People and their Planet: Searching for Balance**, London: Macmillan, 1999, 251 - 271
3. *The environmental impact and sustainability of plantations in Sub-Saharan Africa: Ghana's experiences with oil-palm plantations*, in Benneh, G., W.B. Morgan, and J.I. Uitto (eds.) **Sustaining the Future: Economic, Social and Environmental Change in Sub-Saharan Africa**, Tokyo: UNU Press, 1996, pp. 342-357.

J. SELECTED TECHNICAL AND CONSULTANCY REPORTS

1. **National Report on Governance of Natural Resources: Experiences/Best Practices and Lessons Learned in Mainstreaming Governance of Natural Resources into National Democratic Processes in Ghana**, 2004. Prepared for the Drylands Development Centre (DDC) of the UNDP
2. **Draft Methodology and framework for Conducting Case Studies for Analysis of 'Good'/'Best' Practices for Conservation of Crop-Landraces On-Farm - (Towards project on 'Community-based management of on farm plant genetic resources in arid and semi-arid areas in Sub-Saharan Africa'**, 2002. Prepared for the International Plant Genetic Resources Institute (IPGRI), Nairobi.

K. SELECTED CONFERENCES

Attended over 50 conferences, seminars, workshops, and symposia, including the following at which I presented papers, as in the majority of the remaining cases:

1. Global Authors Meeting of **the International Assessment of Agricultural Science and Technology for Development (IAASTD)**: Istanbul, Turkey; Bangkok, Thailand; San Jose, Costa Rica; Cape Town, Republic of South Africa - At various times in 2005-2006.
2. International Symposium on **Managing Biodiversity in Agricultural Ecosystems**, jointly organized by the United Nations University, the International Plant Genetic Resources Institute and the Secretariat of the Convention on Biological Diversity, 08-10 November 2001, Montreal, Canada.

L. SELECTED UNIVERSITY COURSES EVER TAUGHT

- Environment & Society; Ecological Basis of Development; Rural Resource Development; Agricultural Land Use Theories & Policies; Sustainable Agricultural Systems in the Developing World; Geography of the Tropical World; History of Geographical Thought; Economic Geography; Basic Statistics.

M. CONSULTANCIES AND EXTERNAL EXAMINATION

1. Consultant: United Nations University; UNESCO/CIPSEG; World Bank; Ghana's Environmental Protection Agency; Cowater Co.; Volta River Authority; United Nations Centre for Human Settlements (UN Habitat); Friends of the Earth; Ghana Rural Reconstruction Movement; International Plant Genetic Resources Institute; Conservation International; Third World Forum; Development Centre; Ministry of Environment and Science; UNEP; Third World Research Forum; IDRC.
2. External Examiner, University of Cape Coast (Cape Coast, Ghana) and University for Development Studies (Tamale, Ghana).

N. *LEARNED/PROFESSIONAL SOCIETIES, PUBLIC SERVICE AND OTHER ROLES (PAST & PRESENT)*

- Member: Ghana Geographical Association; African Geographical Association; IGU Commission on Critical Environmental Situations and Regions; IGU Study Group on Land Use and Land Cover Change
- Leader/Coordinator, West Africa Cluster, project of Collaborative Research on People, Land Management and Environmental Change (PLEC)
- National Co-ordinator, project on Sustainable Land Management for Mitigating Land Degradation, Enhancing Agric. Biodiversity, and Reducing Poverty (SLaM) in Ghana
- Chairman, Management Board, Volta Basin Research Project
- Chairman, Academic Planning Committee, Presby University, Akuapem campus
- Member, Editorial Board, Journal of Mountain Science.

CURRICULUM VITAE OF PROF ALEX ASIEDU

1. Personal

Nationality: Ghanaian

Address: Department of Geography and Resource Development, University of Ghana. P.O. Box LG 59, Legon, Ghana. Email: abasiedu@ug.edu.gh/abasiedu@yahoo.com

2. Fellowships

1999 – 2000: Commonwealth universities visiting fellowship

1986 – 1988: Japanese Ministry of Education (Munbusho) Fellowship

1989 – 1992: Japanese Ministry of Education (Munbusho) Fellowship

3. Professional Organisations/Honour Societies

Indian Geographical Society (Associate Member)

International Society For Third Sector Research

University Teachers Association Of Ghana

Ghana Alumni Of Japanese Universities

Ghana Institute Of Planners

Ghana Geographical Society

International Society For Environmental Creation

Union For Pan African Populations Studies (UAPS, 2007)

4. Academic Experience

2003 to date: Associate Professor and Head of Department of Geography and Resource Development, University of Ghana, Legon

1998 – 2003: Senior Lecturer, Department of Geography and Resource Development, University of Ghana, Legon

1994 – 1998: Lecturer, Department of Geography and Resource Development, University of Ghana, Legon

1992 – 1994: National Service personnel at the Department of Geography and Resource Development, University of Ghana, Legon

1984 – 1986: National Service personnel at the Land Administration Research Centre (LARC), University of Science and Technology, Kumasi, Ghana.

Courses taught: Environment and development, Regional geography of Africa, Tourism, Population studies, Research methods and regional science.

Thesis supervision: Principal supervisor of 8 M.Phil and 2 PhD theses.

External examiner to Ghana Institute of Management and Public Administration.

Other Experience:

Chairman, Working Group on Tourism Finance and Investments, Ministry of Tourism and Diasporan Relations and JICA project on Tourism Development (Japanese Government).

Chairman, National Agricultural and Natural Resources Statistics Sectoral Working Group, Ghana Statistical Service, Accra

Workshop/Training Coordinator, Public – Private Partnerships, Institute of Local Government Studies, Accra, November, 2002

Board Executive Member, Africa Tourism Development Ltd.

Chairman, National Accreditation Board Panel on Tourism to over 10 Tertiary Level Institutions In Ghana

Member, Board of Volta Basin Research Centre, University of Ghana Since 2003

Member, Centre for Remote Sensing and GIS Board, University of Ghana, Since 2003

Member, Ecological Laboratory Board, University of Ghana

Member, University of Ghana Academic Board, Since 2002

Member of Faculty of Social Studies Board, University of Ghana 1996-1998, and Since 2003

Faculty of Social Studies Representative on the Board of Faculty of Agriculture, University of Ghana (1996 - 1998).

Member, Faculty of Science Board, University Of Ghana. (1996-1998 and Since 2003)

Hall Tutor, Akuafo Hall, University of Ghana.

Member Of Reseau Sadaoc Project on Food Security Issues in West Africa (1994 - 1996, ISSER, University of Ghana.

Member of National Committee on Quality Assurance (Manpower Division) within the Tourism Industry, Ministry of Tourism, Accra, February - April, 1996.

Member, Graduate Studies Committee, Environmental Science Programme, Faculty of Science, University of Ghana.

Coordinator, Soka University (Japan) - University of Ghana Exchange Programme

Japanese Educational Programmes Advisor, Japan Embassy, Accra 1994 - 1996

Africa Regional Editor for the International Journal of Environmental Creation

5. Proceedings, Books and Journal articles

Published Proceedings

Asiedu, A.B., Seiichi Kagaya and Etsuo Yamamura (1989) "A dynamic assessment of housing investment options in a city in a developing country – the case of Kumasi, Ghana", published proceedings of Japan Society of Civil Engineers (Hokkaido branch), vol. 45, pp. 433-438.

Asiedu, A.B (1996): "Geo-ecological implications of tourism development on the coastal area of Ghana", published proceedings, international seminar on the coastal zone of West Africa: problems and management, organized by University of Ghana and University of Newcastle, U.K.

Asiedu, A.B. (2001): "The potential of systems dynamic modelling in the sustainable development of essential environmental facilities (EEF) in an urban area of sub-saharan Africa", in proceedings of international society of conference, Nairobi, Kenya. also available at <http://www.fig.net/figtree/pub/proceedings/nairobi/asiedu-ts11-1.pdf>

Asiedu A.B. (2000) – "Poverty reduction among the urban poor in Accra, Ghana – a comparative study of the roles of two (2) community based organizations (CBOs)", ISTR working paper series, vol. iii, (Cape Town Conference 2002). also available at <Http://www.istr.org/conferences/capetown/volume/>

Books and chapters in books

Ardayfio-Schandorf, E. and Asiedu, A.B. (2001): "The tropical environment and environmental pollution: the need for action", in E.N. Adinna (eds) Environmental pollution and management in the tropics, Harcourt press, Nigeria, chapter 2, pp 1-16

Ardayfio-Schandorf, E; Yankson, P.W.K.; Asiedu, A.B; Agyei-Mensah and Attua, E.M. (2005): "Socio-economic profile of residents within forest fringe communities in the Goaso forest area, brong Ahafo, Ghana", Woeli Publishers, Accra, Ghana

Asiedu, A.B. (2005): "Geography of sub-saharan Africa" in African studies textbook, Takyiwah-Manu and Sutherland Addy (eds), sub-saharan publishers, Accra, Ghana (forthcoming).

Akyeampong, O and Asiedu, A.B.(eds) (2007) "Tourism development in Ghana: a modern synthesis", a teaching monograph, Accra, Ghana (forthcoming)

Journal articles

Asiedu, A.B. and Yamamura Etsuo (1989): "A study of model reference adaptive control in economic development (ix): model reference adaptive housing model", Environmental Science Journal of Hokkaido University (Japan), vol.12 no.2, pp.13-28

- Asiedu, A.B., Yamamura Etsuo and Seiichi Kagaya (1990) “A study on the assessment of housing investment options for a sub-saharan African city based on systems dynamic modeling approach” urban society Journal of Hokkaido (Japan), vol. 27.pp.9-16.
- Asiedu, A.B; Ohta Mitsuru and Yamamura Etsuo (1990): “A study of the sources of residential satisfaction among households in Kumasi city, Ghana”, Studies in Regional Science of Japan, vol.21, no. 1. pp.67-85.
- Asiedu, A.B. and Kagaya Seiichi (1991): “A cross-sectional analyses of household rental housing demand in Kumasi City, Ghana, Environmental Science Journal of Hokkaido University (Japan), vol.14, no.2, pp.61-75.
- Asiedu, A.B. (1996): “Planning considerations for the sustainable development of nature-based tourism in Ghana” in Oteng-Yeboah and Enu-Kwesi (eds), Biodiversity, Botany Department, University of Ghana, pp.63-69.
- Asiedu, A.B. (1997): “Prospects for an emerging tourism industry in Ghana”, Research Review (new series), vol. 13, nos. 1 and 2, University of Ghana, pp. 11-26.
- Asiedu, A.B. (1998) “Housing improvements in an informal urban neighbourhood in Accra”, Ghana – International Journal of Environmental Creation, vol.1, no.2, pp.37-51.
- Asiedu, A.B. (1998) – “An overview of issues in domestic tourism promotion in Ghana”, Legon Journal of Humanities, vol.11, pp.67-84.
- Asiedu, A.B. (1999) – “The environmental health safety factor in international tourism promotion in Ghana – evidence from university exchange students”, Bulletin of the Ghana Geographical Association, no. 21, pp.175-184.
- Asiedu, A.B. (1999): “Determinants of homeownership in Kumasi, Ghana”, Danish Journal of Geography, vol. 99, pp.81-88.
- Addo, S.T. and A.B. Asiedu (2000) “Transportation and other problems associated with staple food crops distribution in Ghana”, Ghana Social Science Journal (new series), vol.1, no.1, pp. 65-95.
- Awadzi, T.W. and Asiedu, A.B. (2000): “Some problems and potential uses of a dredged river basin in Ghana”, Bulletin of Ghana Geographical Association, vol. 22, pp.15-23.
- Asiedu, A.B. (2002) “Making ecotourism more supportive of rural development in Ghana, West African Journal of Applied Ecology, vol.3, pp.1-16.
- Asiedu, A.B. (2003 – “Tourism in Ghana – development trends and critical research agenda for the future”, Legon Journal of Sociology, (vol. 1, no. 1 pp.19-41)
- Asiedu, A.B. (2003): “Factors of satisfaction in visiting a peri-urban botanic garden in Ghana”, Indian Geographical Society Journal, vol. 65, no.4,
- Asiedu, A.B. (2005) “Some benefits of migrants return, visits to Ghana” Population, Space and Place, vol.ii, pp.1-11.
- Asiedu, A.B. (2007): “Participant characteristics and economic benefits of visiting friends and relatives (VFR) tourism – international survey with implications for Ghana”, International Journal of Tourism Studies, UK. (accepted and forthcoming)

Addo S.T. and Asiedu A.B. (2007): “The environment/ land tenure nexus at Dawa Ogome of the Eastern Region”, ISSER Technical Papers (under the land tenure and policy reform project) (forthcoming)

Asiedu, A.B. (2007): “Tourism planning in Ghana”, in Akyeampong, O and Asiedu, A.B (eds) - “Tourism Development in Ghana-a modern synthesis, a teaching monograph (forthcoming)

Akyeampong, O and Asiedu, A.B (2007)- “Spatio-temporal analysis of tourism development in Ghana” , in Akyeampong, O and Asiedu, A.B (eds)- “ Tourism Development in Ghana-a modern synthesis, a teaching monograph (forthcoming)

Asiedu A.B. (2008): “Gated housing communities in Ghana - oldwine in new bottles? Ghana Social Science Journal (forthcoming).

Asiedu A.B. and Arku G.(2008): “The rise of gated housing estates in Ghana: experiences from three communities in Accra and Tema, Ghana, Journal of Housing and Built Environment (forthcoming).

Asiedu A.B.and Agyei-Mensah S. (2008) “Traders on the run: activities of street vendors in the Accra metropolitan area” Norwegian Journal of Geography (accepted, forthcoming summer).

Asiedu, A.B. (2008)” “Some developmental effects of international migration of skilled labour from Ghana” Population, Space and Place (forthcoming).

6. Consultancies and major studies

Volta river basin socio-economic baseline study for winlow banana farms limited in 2002, for the establishment of banana plantation in the North and South Tongu districts in the Volta Region, Ghana. I acted as the socio-economic consultant in the multidisciplinary research team from University of Ghana.

Environmental impact assessment (EIA) communication strategy for EPA and the Dutch Embassy in 2002. Acted as the EIA consultant for the project that was executed by a Dutch consultant.

Evaluation of sail programme in Ghana on capacity building for decentralization for the Netherlands Ministry of Foreign Affairs, the Hague teamed up with a Dutch consultant to execute this project in 2003.

Inventory and promotional study of Asanteman heritage assets for Asanteman and the World Bank in 2004. Part of a three member team from University of Ghana that worked in six traditional areas in the Ashanti Region of Ghana.

Socio-economic study of 28 forest fringe communities in the Goaso forest district in the Brong Ahafo Region for tree and forest management, Tropenbous International, the Netherlands (2003-2005). This three year study project involved the Department of Geography and Resource Development, University of Ghana, ITC, Enschede, Holland and UNW of Germany.

ISSER-USAID land reform project, 2005. Together with Prof. S.T. Addo of the Department of Geography and Resource Development, we evaluated the efficiency of the Huza land tenure system within farming communities in the Manya Krobo area of the Eastern Region in terms of contemporary environmental challenges being experienced in the area.

Consultant for the World Bank and Ghana Water Company for private sector participation in water delivery in Ghana, 2005. Acted as the socio-economic consultant for AY&A Consultancy firm that executed this nationwide project.

Consultant/trainer, tourism investment and finance, project, Japan International Cooperation Agency (JICA) /Ministry of Tourism and Diasporan Relations, 2006/2007, Accra, Ghana.

Member of Centre for Remote Sensing and GIS in physical development that evaluates tenders for major projects. Recently evaluated tenders for the construction of their office complex.

Part of a team evaluating the traditional land title project of the Kete Krachi traditional area (Krachi West and East Districts of the Volta Region) that was established under the land administration project of the Ministry of Lands and Forestry.

Part of a consultancy team from University of Ghana that conducted a preliminary environmental impact assessment on the proposed water desalination plant for Nungua, Accra. I was the social impact assessment consultant of the team (2008).

CURRICULUM VITAE OF PROF KWADWO OFORI

A. Personal Details

Name Kwadwo Ofori (Previous name: Ibrahim Ofori)
Date of birth April 23, 1956
Nationality Ghanaian
Family status Married with children

b. University Education & Qualifications

1979 – 1981 University of Ghana-Legon:
B.Sc. (Hons) Agriculture
1982 – 1985 University of Saskatchewan, Canada:
M.Sc. (Genetics and Plant breeding)
1985 – 1989 University of Saskatchewan, Canada:
Ph.D. (Genetics and Plant breeding)

A. Scholarships

Government of Ghana Bursary: (1979-1981)
Association of Commonwealth Universities Award: 1982-1985.
University of Saskatchewan Graduate Assistantship: 1985-1989.

B. Record of Employment

1981 – 1982 Teaching Assistant
Department of Crop Science, University of Ghana
1984 – 1987 Demonstrator in Applied Statistics,
Department of Crop Science and Plant ecology,
University of Saskatchewan, Canada.
1989 - 1999 Lecturer (Plant breeding & Biometry)
Department of Crop Science, University of Ghana
1999 - 2006 Senior Lecturer (Plant breeding & Biometry)
Department of Crop Science, University of Ghana
2006 - Present Associate Professor (Plant breeding & Biometry)
Department of Crop Science, University of Ghana

C. Membership of Learned and Professional Societies

Ghana Science Association: - 1989 to date
University Teachers Association of Ghana: - 1989 to date
Agricultural Society of Ghana: - 1992 to date.

D. Details of Research or Major Projects Undertaken

1980 – 1981 - Variation in performance of eleven local varieties of Okro.
1982 – 1984 - Variation and heritability of agronomic characters in faba bean.
1985 – 1989 - Response to selection for early maturity and high yield in faba bean.
1990 – 1992 - Screening cowpea cultivars for tolerance to low soil phosphorus levels.
1992 – 1994 - Survey of plantain production practices and constraints in Ghana
1994 – 1996 - Survey of biological nitrogen fixation potential of food legumes in Ghana.
1995 – 1998 - Effects of size of planting material, plant population and fertilizer rate on growth, yield and quality of pineapple (Var, Smooth

- Cayenne).
- 1997 – 2000 - Determination of time of maximum percentage of mature pods in Bambara groundnut.
- Effects of intercropping cowpea on the growth and yield of garden egg.
 - Field plot technique studies in Bambara groundnut.
 - 2001-2002 - Assessment of variability in agronomic and nutritional attributes of Bambara groundnut germplasm in Ghana
 - 2002-2005 - Rapid multiplication of taro planting materials in the South Pacific
 - Screening tomato varieties for earliness and high yield in hot and humid tropical environments (South Pacific islands)
 - 2005-2007 - Determination of fertilizer regimes for MD2 pineapple
 - 2006- - Development of early maturing varieties of vegetables for the coastal savanna area of Ghana (Hot pepper, garden egg, tomato and okra)
 - 2006 - -Development of drought-tolerant maize through mutagenesis
 - 2006- -Agronomic and genetic studies of jatropha in Ghana

G. Research in Progress

- i) Determination of patterns of yield component compensation in early maturing cowpea cultivars under increased plant densities.
- ii) Studies on genetic control of plant morphology and fruit yield in okra, garden egg and hot pepper.
- iii) Development of heat and drought tolerant tomato varieties for dry season cultivation through selection and hybridization.
- iv) Selection of elite varieties of jatropha for the biofuel industry in Ghana

H. Supervision of Student Projects

Undergraduate level (44 students)

Master of Philosophy Level (**14 students**)

Doctor of Philosophy Level (5 students)

I. Publications

a. Refereed Journal papers

- Adjei-Nsiah, S., Dzietror, A. Ahiekpor, E. K. S., Afeh-Nuamah, K., **Ofori, I.** and Hemeng, O. B. 1996. Effect of planting depth, density and arrangement on growth, lodging and yield of plantain (*Musa AAB*) *MusAfrica* 7: 9-11.
- Banful, B., Dzietror, A., **Ofori, I.** and Hemeng, O. B. 1998. Nematode populations as influenced by *Leucaena leucocephala* and *Flemingia congesta* in an alley cropping system. *Ghana Journal of Agricultural Science* 31: 21-26.
- Bennett-Lartey, S. O. and **Ofori, I.** 1999. Variability studies in some qualitative characters of cowpea (*Vigna unguiculata* (L.) accessions from four cowpea-growing regions of Ghana. *Ghana Jnl. Agric. Sci.* 32: 3-9.
- Bennett-Lartey, S. O. and **Ofori, K.** 1999. Heterosis in cowpea landraces from Ghana. *Ghana Journal of Agricultural Science* 32: 27-30.
- Ofori, K.** 1999. Multivariate analysis of genetic diversity of the garden eggplant (*Solanum aethiopicum* (G)) from Ghana. *Agronomie Africaine* 11(1):1-6.
- Banful, B., Dzietror, A., **Ofori, I.** and Hemeng, O. B. 2000. Yield of plantain alley cropped with *Leucaena leucephala* and *Flemingia macrophylla* in Kumasi, Ghana. *Agroforestry Systems* 49: 189-199.

- Bennett-Lartey, S. O. and **Ofori, K.** 2000. Variability in some quantitative characters of cowpea landraces in Ghana. *Ghana Journal of Agricultural Science* 33:165-170.
- Nuertey, B. N., **Ofori, K.**, and Asamoah, T. E. O. 2000. Economics of intercropping food crops in oil palm for small scale farmers. *Journal of the Ghana Science Association* 2: 170-176.
- Ofori, K.**, Kumaga, F. K. and Bimi, L. K. 2001. Variation in seed size, seed protein and tannin content of Bambara groundnut. *Tropical Science* 41: 41-44.
- Nuertey, B. N., **Ofori, K.**, and Asamoah, T. E. O. 2001. Performance of food crops inter-cropped with oil palm. *Journal of the Ghana Science Association* 3: 17-22.
- Marfo-Ahenkora, E., Kumaga, F. K. and **Ofori, K.** 2001. Assessment of the potential of three leguminous cover crops for soil nitrogen improvement and weed control for young oil palm plantations. *Journal of the Ghana Science Association* 3: 15-23.
- Kumaga, F.K., Adiku, S.G.K and **Ofori, K.** 2003. Effect of Post-flowering Water Stress on Dry Matter and Yield of Three Tropical Grain Legumes. *International Journal of Agriculture and Biology* 5 (4): 405-407.
- Denwar, N.N. and **Ofori, K.** 2003. Variation in Trap-Crop Capacity of Soybean Genotypes for the Control of *Striga hermonthica* *International Journal of Agriculture and Biology* 5 (4): 504-506. 16.
- Osei, J.K., Andoh-Mensah, E. and **Ofori, K.** 2003. Stimulation of axillary bud initiation and development in plantain (*Musa AAB*) with benzyl adenine. *Ghana Journal of Horticulture* 2: 74-80.
- Kumaga, F.K. and **Ofori, K.** 2004. Response of soybean (*Glycine max* (L.) Merrill) to bradyrhizobia inoculation and phosphorus application. *International Journal of Agriculture and Biology* 6 (2): 324-327.
- Ofori, K.** and P.Y. Klogo 2005. Optimum time for harvesting yardlong bean (*Vigna sesquipedalis*) for high yield and quality of pods and seeds *Journal of Agriculture and Social Sciences* 1(2): 86-88
- Ofori, K.** and Gamedoagbao, D.K. 2005. Yield of scarlet eggplant (*Solanum aethiopicum* L.) as influenced by planting dates of companion cowpea. *Scientia Horticulturae* 105 (3): 305-312.
- Ofori, K.**, Kumaga, F.K. and Tonyigah, A. 2005. Morphological Characterisation and Agronomic Evaluation of Bambara Groundnut (*Vigna subterranea* (L.) Verdc.) Germplasm in Ghana. *Plant Genetic Resources Newsletter* 145:23-28.
- Aregheore, E. M., Ali, I., **Ofori, K.** and Rere, T. 2006. Studies on grazing behaviour of goats in the Cook Islands: The animal-plant complex in forage preference/palatability phenomena. *International Journal of Agriculture and Biology* 8 (2): 148-153.
- Kumaga, F.K., **K.Ofori** and E. Marfo-Ahenkorah. 2006. Nodulation, dry matter and nitrogen accumulation of *Mucuna* in response to Bradyrhizobia inoculation. *International Journal of Agriculture and Biology* 8 (1): 138-141.
- Bam, R.K., Kumaga, F.K., **Ofori, K.** and E.A. Asiedu. 2006. Germination, vigour and dehydrogenase activity of naturally aged rice seeds soaked on potassium and phosphorus salts. *Asian Journal of Plant Science* 5 (6):948- 955.
- Ofori, K.**, Blay, E.T. and Gamedoagbao, D.K. 2006. Inter-relationships between agronomic traits and fruit yield in scarlet egg plant (*Solanum aethiopicum* (L.) Gilo group). *Ghana Journal of Horticulture* 5: 1-9.
- Bam, R.K., Craufurd, P.Q., Dorward, P.T., Asiedu, E.A., Kumaga F.K. and **K. Ofori.** 2007. Introducing improved cultivars: Understanding farmers' seed drying and storage practices in central Ghana. *Experimental Agriculture* 43 (3) 301-317.
- Bam, R.K., Hong, T.D., Ellis, R.H., Kumara, F.K., **Ofori, K.** and E.A. Asiedu. 2007. Storage behaviour of two contrasting upland rice genotypes. *Ghana Journal of Agricultural Science* 42 (Accepted September 2007).

Banful, B.K., Hauser, S., **Ofori, K.** and Kumaga, F.K. (2007). Weed biomass dynamics in planted fallow systems in the humid forest zone of southern Cameroon. *Agroforestry Systems* 71: 49-55.

b. Refereed Proceedings (4); c. Technical Reports (4); Consultancy Reports (7); Training Manuals (2)
Papers/posters presented at conferences and workshops (16)

CURRICULUM VITAE OF PROF YAA NTIAMOA-BAIDU

I. PERSONAL DETAILS

Name: Yaa NTIAMOA-BAIDU
Date of Birth: 27th January, 1951
Nationality: Ghanaian
Marital status: Married with five children (3 boys & 2 girls)
Languages: Twi (mother tongue), English (excellent), French (basic).

Contact Details Zoology Department,
P. O. Box 67,
Legon, Accra, Ghana
Tel: 021-500880, 0244-769081;
E-mail: private: yaanbgordon@yahoo.co.uk, Official: ynbaidu@ug.edu.gh

II ACADEMIC QUALIFICATIONS

- Ph.D. Zoology, Edinburgh, 1980 (Thesis: The Ixodid parasites of the Grasscutter *Thryonomys swinderianus* (Temminck) in Ghana).
- B.Sc. Hons. Zoology, Legon, 1975 (First Class).
- B.Sc. General. Zoology, Biochemistry, Legon, 1973 (Second Class, Upper Division).

III. PRIZES, HONOURS AND MERITORIOUS AWARDS

- St. Monica's Secondary School Bursary (1963 - 1967).
- Ghana Govt scholarships (1967-68; 1976-80).
- Volta Prize for Best First Year Science Student in Volta Hall (1971).
- Waddell Prize in Science for Best B.Sc. Student, University of Ghana (1975).
- Medal of the Royal Society for the Protection of Birds, UK for contribution to bird conservation in Ghana (1995).
- Officer of the Order of the Golden Ark, awarded by His Royal Highness Prince Bernhard of the Netherlands for “lifelong contribution to wildlife conservation” (1996).
- Member of Honour: conferred by BirdLife International in “recognition of distinguished contribution to the conservation of wild birds and their habitats world-wide” (2000).

III. PROFESSIONAL EXPERIENCE

III(a) ACADEMIC CAREER

March 2008 – present: Dean of the University of Ghana’s School of Research and Graduate Studies with responsibility for providing vision and creative leadership to consolidate the academic standing and promote the growth and development of the School, as well as overall responsibility for facilitating the University’s research enterprise.

Nov. 2004 – Elected as Fellow of the Ghana Academy of Arts and Sciences, the highest intellectual body in Ghana.

April 2003 - present: Professor, Department of Zoology, University of Ghana: focusing mainly on postgraduate student research and development in conservation biology, wetlands and waterbird ecology and environmental science and mentoring junior faculty.

1995 - 2003: Associate Professor, Department of Zoology, University of Ghana: Duties included research, teaching and mentoring students and junior faculty.

1995 – 1998: Head of the Zoology Department, University of Ghana.

Duties included administrative leadership of the Department, mentoring of staff, teaching, and research. Key contributions during the period include establishment of a biodiversity research initiative and launch of a fund raising initiative that raised resources (in cash and kind) for refurbishment of various facilities in the department and purchased a four wheel drive vehicle for the Department at a time when the University was not in a position to provide such resources to the Department.

Dec. 1994 – Jan 1995; Aug 1995: Acting Head, Zoology Department, University of Ghana: Initiated the Zoology Department beautification exercise.

1985 – 1995: Senior Lecturer: Duties included teaching, research and supervision of student projects.

➤ ***Courses taught Research activities and areas of academic interest***

Courses taught: Medical Entomology, Ornithology, West African Fauna, Wildlife and its Management, Animal Ecology and Conservation Biology.

Ongoing research activities: Population dynamics, feeding ecology, migration and distribution patterns of waterbirds; Ecological studies on coastal wetlands and marine turtles; Environmental conservation and sustainable development, traditional conservation strategies and sustainable wildlife resource utilisation.

➤ ***Student research projects supervision***

Supervised a number of undergraduate research projects as well as graduate student research at MPhil level (seven students) and PhD level (four students).

➤ ***Selected Public Speaking Assignments***

- Invited Plenary Speaker, Society for Conservation Biology Conference, South Africa July 2007 (topic: The role of Conservation Science in Africa's Development)
- Fifth in the Ghana Golden Jubilee Lecture Series, June 2007 (topic: Managing Ghana's Natural Resources and Environment since Independence: A Critical Assessment)
- Invited Speaker, Civil Society Hearing, World Summit, New York, USA, June 2005 (topic: incorporating environmental concerns into the international development agenda)
- Invited speaker WWF-UK fund raising event, London, UK (2002)
- Invited lecturer: 1997-98, C. L. R James Lecture, St Lawrence University, USA. Topic: *Biodiversity Conservation in Africa: Challenges and Prospects.*
- Invited Speaker: Ghana Academy of Arts and Sciences 1995 Annual Lecture: Topic *Challenges and Prospects for biodiversity Conservation in Ghana.*
- Keynote address at the launch of the Biodiversity Support Programme 's book "African Biodiversity: Foundations for the Future", Washington (1992).

III(b) INTERNATIONAL EXPERIENCE

Starting from 1985, has played a lead role in many global biodiversity conservation initiatives, with specific focus on wetlands and bird conservation, and is well known in international conservation circles as a leader in environment and nature conservation in Africa. One of the five African environment experts selected for the roundtable discussion with President Clinton (then President of the United States) during his visit to Botswana in 1998, and spokesperson representing eight international conservation organisations to speak for environment at the World Summit Civil Society Hearings in New York in 2005. Key international assignments and responsibilities include:

Oct. 2002 – March-2008 Director, WWF International Africa and Madagascar Programme

Providing strategic oversight for the WWF programme in Africa with focus on ensuring cost effective and efficient delivery of the organisation's conservation programme in Africa; representing WWF in

development and conservation policy dialogue in Africa and representing Africa and African priorities in WWF's global programmes, and providing high level representation of WWF in external fora such as UN bodies.

1998 – 2002: Director, WWF International Africa and Madagascar Programme (based in Switzerland)

Overall responsibility for WWF's conservation programmes in Africa, with seven programme offices in Madagascar, West, Central, Eastern and Southern Africa, covering some 140 projects, with average annual budgets around US\$50 million and about 900 staff. Specific duties included providing vision and strategic guidance for the development of the programme, supervising and managing multi-cultural teams, senior level staff recruitment, fund-raising and donor liaison, providing focal point/clearing house at the international secretariat for conservation issues in Africa. Notable achievements in the period were a) leading and guiding a strategic planning process that defined the conservation priorities for Africa and resulted in a more coherent programme; b) building and encouraging a stronger team spirit in the programme; and c) bringing highly qualified senior African professionals into the programme.

1993-1999: Member and subsequently Chairperson, Scientific and Technical Review Panel of the Ramsar Convention on Wetlands. Led the development of scientific criteria for selection of wetlands of international importance, definition of ecological character and management guidelines for designated sites.

1995-1997: Member of the Advisory Group for the World Bank's Global Overlays Programme – launched as part of an effort to assist countries to integrate global environmental concerns into development planning.

1995 -1996: Member of the Global Environment Facility/NGO Working Group responsible for defining strategies for NGOs to participate in and contribute to the GEF's objectives, and member of the Global Environment Facility/NGO Task Force that defined modalities for implementing the GEF Medium Sized Grant.

1992-1996: President, 9th Pan African Ornithological Congress: led a major campaign and fundraising initiative to organise the 9th PAOC in Accra. As Chair of the Congress (the first time that an African was given this responsibility), mentored many young African ornithologists and was able to mobilise funds to sponsor 60 of them to attend the Congress.

1985 -1998: Starting as Ghana's Representative to the International Council for Bird Preservation in 1985, became a member of the Executive Committee (1990), African Councillor (1994), played a lead role in the development of the organization into BirdLife International, currently a worldwide network of conservation organizations with a strong base in Africa.

IV. INTERNATIONAL MEETINGS/CONFERENCES & OTHER TRAVELS

Attended over 80 conferences, meetings and workshops during her career and also organised a number of conferences/meetings/workshops. Recent key conferences attended include:

Countries visited/worked in include: -

- **Africa:** Benin, Burkina Faso, Burundi, Cape Verde, Cameroon, Congo, D.R. Congo, Côte d'Ivoire, Gabon, Kenya, Madagascar, Malawi, Mauritania, Mozambique, Namibia, Nigeria, Senegal, South Africa, Tanzania, Togo, , Uganda, Zambia, Zimbabwe.
- **Europe:** Belgium, Denmark, France, Germany, Italy, The Netherlands, Sweden, Switzerland Turkey, United Kingdom.

- **North America:** - Canada (Kingston, Regina, Montreal, Halifax, Vancouver, Ottawa); United States (Washington, New York, Philadelphia, Hilton Head),
- **Asia/Pacific:** Australia, Malaysia, New Zealand.

V. PUBLICATIONS

Books

- Ntiamao-Baidu, Y., Zeba, S., Gamassa, D. M. & Bonnehin, L. 2001. *Principles in Practice, Staff Observations of conservation projects in Africa*. BSP, Washington 93 p.
- Finlayson, C M., Gordon, C., Ntiamao-Baidu, Y., Tumbulto, J., & Storrs, M 1998 *Hydrobiology of the Songor and Keta lagoons: implications for wetland management in Ghana* Environmental Research Institute of the Supervising Scientist, Australia 16.
- Ntiamao-Baidu, Y., 1997 *Wildlife and Food Security in Africa*. FAO Conservation Guide, No. 33, FAO, Rome, 109 pp.
- Piersma, T. & Ntiamao-Baidu, Y. 1995 *Waterbird Ecology and the Management of coastal Wetlands in Ghana*. NIOZ-Series, No. 6, Texel, Netherlands. 105 pp.

Contributed chapters in books

- Ntiamao-Baidu, Y., Owusu, E. H., Daramani, D. T. & Nuoh, A. A. 2001. Important Bird Areas of Ghana. Chapter in Fishpool, L. D. C & Evans, M. I. (eds.) *Important Bird Areas in Africa and Associated Islands, Priority sites for Conservation* pp 367-389.
- Ntiamao-Baidu, Y. 2000 Indigenous versus Introduced Biodiversity Conservation Strategies: the Case of Protected Area Systems in Ghana: In White, L. J. T., Vedder, A. & Naughton-Treves, L. (eds.) *African Rain Forest Ecology and Conservation*, Yale University Press, New Haven & London pp 385-394.
- Tutu K. A., Ntiamao-Baidu, Y. and Asuming Brempong, S. 1996, The Economics of Living with Wildlife in Ghana In Bojo J., (ed.) *The Economics of Living with Wildlife: Case Studies from Ghana, Kenya, Namibia and Zimbabwe*. World Bank AFTES, Technical Series No 19, pp. 11-34.
- Ntiamao-Baidu, Y. 1990 Coastal Wetlands Conservation: The Save the Seashore Birds Project. In: *Living with Wildlife*. A. Kiss (ed.). World Bank Technical Paper **130**. p 91-95
- Ntiamao-Baidu, Y. & Hollis, G. E. 1988 Planning the Management of Coastal Lagoons in Ghana. In: Maltby E. *et al* (eds.) *Conservation and Development: The Sustainable Use of Wetland Resources*. IUCN p. 113-121.

Refereed Journal Articles

- Ntiamao-Baidu, Y., Carr-Saunders, C., Matthews, B. E., Preston, P. M. and Walker, A. R. 2005, Ticks associated with wild animals in Ghana. *Bulletin of Entomological Research*, **95**, 205-219
- Ntiamao-Baidu, Y., Carr-Saunders, C., Matthews, B. E., Preston, P. M. and Walker, A. R. 2004, An updated list of the ticks of Ghana and an assessment of the distribution of the ticks of Ghanaian wild animals in different vegetation zones. *Bulletin of Entomological Research*, **94**, 245-260
- Ntiamao-Baidu, Y., Nyame, S. K. & Nuoh, A. A., 2000 Trends in the use of a small coastal lagoon by waterbirds: Muni Lagoon in Ghana *Biodiversity and Conservation* **9** (4) 527-539.
- Ntiamao-Baidu, Y., Owusu, E. H. & Daramani, D. T., 2000 Terrestrial Birds of the Muni Pomadze Ramsar site. *Biodiversity and Conservation* **9** (4) 511-525.
- Gordon, C., Ntiamao-Baidu, Y. & Ryan, J. M. The Muni Pomadze Ramsar site. *Biodiversity and Conservation* **9** (4) 447-464.
- Ryan, J. M. & Ntiamao-Baidu, Y. 2000 Biodiversity and ecology of coastal wetlands in Ghana. *Biodiversity and Conservation* **9** (4) 445-446.
- Ntiamao-Baidu, Y., Owusu, E. H., Asamoah, S. & Owusu-Boateng, K. 2000 Distribution and abundance of forest birds in Ghana *Ostrich*, **71**: 262-268.

- Ntiamoa-Baidu, Y., Asamoah, S., Owusu, E. H. & Owusu-Boateng, K. 2000 Avifauna of two upland evergreen forest reserves, the Atewa Range and Tano Offin in Ghana. *Ostrich*, **71**: 277-281.
- Ntiamoa-Baidu, Y., Piersma, T., Wiersma, P., Poot, M., Battley, P. & Gordon, C. 1998 Water depth selection, daily feeding routines and diets of waterbirds in coastal lagoons in Ghana. *Ibis* **140**:89-103.
- Ntiamoa-Baidu, Y. 1995 Conservation education in threatened species management in Africa. *Bird Conservation International* **5**: 455-462.
- Ntiamoa-Baidu, Y. 1995 Indigenous vs. Introduced Biodiversity Conservation Strategies: the Case of Protected Area Systems in Ghana. African Biodiversity Series No. 1, BSP, Washington. 11pp.
- Ntiamoa-Baidu, Y. 1995 Biodiversity conservation in Ghana: Challenges and Prospects. Proceedings of the Ghana Academy of Arts and Sciences, Vol. XXXIV pp.132-152.
- Ntiamoa-Baidu, Y. 1993 Trends in the use of Ghanaian Coastal Wetlands by migrating Knots *Calidris cannutus*. *Ardea* **81**: 71-79.
- Avery, M. I., Coulthard, N. D., del Nevo, A. J., Leroux, A., Medeiros, F., Merne, O., Moralee, A., Ntiamoa-Baidu, Y., O'Brian, M. and Wallace, E. A recovery Plan for Roseate Terns in the East Atlantic: an international programme. BirdLife International Technical Publication.
- Ntiamoa-Baidu, Y. 1991 Species protection as a strategy for Conservation Action in Africa: the case of the Roseate Tern in Ghana. *ICBP Technical Publication No.12*. 165-171.
- Ntiamoa-Baidu, Y. 1991 Seasonal changes in the importance of coastal wetlands in Ghana for Wading Birds. *Biological Conservation*, **57**. 139-158
- Ntiamoa-Baidu, Y. 1991 Conservation of Coastal Lagoons in Ghana: the Traditional Approach. *Landscape and Urban Planning*, **20**. 41-46.
- Piersma, T., Klaassen, M., Bruggerman, J.H., Blomert, A-M., Gueye, A., Ntiamoa-Baidu, Y., & van Brederode, N.E. 1990. Seasonal timing of the spring departure of waders from the Banc d'Arguin, Mauritania. *Ardea* **78** 123-134.
- Blomert, A-M., Engelmoer, M., & Ntiamoa-Baidu, Y. 1990 The Banc d'Arguin, Mauritania, as a meeting point for Avocets during spring migration. *Ardea* **78**:185-192.
- Ntiamoa-Baidu, Y. 1988 Les oiseaux nuisible en Afrique Occidentale. *Nature et Faune* **5** (2): 10-15.
- Ntiamoa-Baidu, Y. 1988 Les oiseaux gibier en Afrique de L'Ouest. *Nature et Faune* **4** (3): 20-23.
- Ntiamoa-Baidu, Y. 1988 Problems et conservation des oiseaux migrateurs en Afrique de l'Ouest. *Nature et Faune*. **4** (1): 18-24.
- Ntiamoa-Baidu, Y. 1988 Les oiseaux littoral du Ghana. *Nature et Faune*. **4** (1): 4-9.
- Ntiamoa-Baidu, Y. & Hepburn, I. 1988 Wintering waders in Coastal Ghana. *R.S.P.B. Conservation Review*. **2**: 85-88.
- Ntiamoa-Baidu, Y. and Grieve, A. 1987 Palaearctic Waders in Coastal Ghana in 1985/86. *Wader Study Group Bull.* **49**, Suppl./IWRB Special Publication 7: 76-78.
- Ntiamoa-Baidu, Y. 1987 Les parasites externes des animaux sauvages au Ghana. *Nature et faune*. **3** (3) : 17-25.
- Ntiamoa-Baidu, Y. 1987 West African Wildlife; a resource in jeopardy *Unasylva* **39** (2) 27-35.
- Ntiamoa-Baidu, Y. 1987 Life cycle of *Ixodes (Afrixodes) aulacodi* (Acari: Ixodidae) in the laboratory. *J. Med. Entomol* **24** (4) 444-447.
- Ntiamoa-Baidu, Y. 1987 *Rhipicephalus simpsoni* (Acari: Ixodidae) Development under controlled conditions. *J. Med. Entomol.* **24** (4) 438-443.
- Everett, M.J., Hepburn, I.R., Ntiamoa-Baidu, Y. & Thomson, G.J. 1987 Roseate Terns in Britain and West Africa. *RSPB Conservation Review* **1**: 56-58.
- Ntiamoa-Baidu, Y. 1986 Parasitism of Female *Ixodes (Afrixodes) moreli* (Acari: Ixodidae) by males. *J. Med. Entomol.* **23** (5) 484-488.
- Campbell, J.A., Asibey, E.O.A., & Ntiamoa-Baidu, Y. 1978 Rodent ticks in Ghana: *Tick borne disease and their vectors* (Ed. J.K.H. Wilde) CTVM Edinburgh University.

Papers published in Conference Proceedings and Technical Reports: over 30

George Wiafe Ph.D

1. Personal

- 1.1. Nationality: Ghanaian
- 1.2. Date of Birth: 1st September, 1965
- 1.3. Marital Status: Married with three children
- 1.4. Present Status: Head of Department, University of Ghana
- 1.5. Permanent Address: Department of Oceanography & Fisheries, University of Ghana, P.O. Box LG99, Legon, Ghana. Tel. +233(0)21 513263 (Direct) +233(0)21 500380 ext 3268; +233(0)244 657475 (Mobile); Fax. +233(0)21 502701. E-mail: wiafeg@ug.edu.gh OR wiafeg@yahoo.com
- 1.6. **Official Site:** <http://www.ug.edu.gh/>

2. Academic Qualification

- 2.1. Doctor of Philosophy (2001): Oceanography. University of Ghana
- 2.2. Certification (1997): Ocean Governance: Policy, Law and Management. International Ocean Institute, Halifax, Canada
- 2.3. Master of Philosophy (1995): Marine Biology. University of Newcastle Upon Tyne
- 2.4. Bachelor of Science (Hons) (1991): Zoology. University of Ghana

3. Research Activities

- 3.1. Impact of hydrological and climatic factors on marine plankton communities
- 3.2. Assessment of primary productivity using remote sensing
- 3.3. GIS applications in coastal management
- 3.4. Modelling nutrient fluxes

4. Project Leadership

- 4.1. West Africa Project Co-ordinator. Darwin Initiative Project on Marine Biodiversity and Capacity Building in the West African sub-region. (1997 – 1999).
- 4.2. Co-ordinator, Guinea Current Large Marine Ecosystem Productivity and Biodiversity Centre, University of Ghana/ Interim Guinea Current Commission (2004 – 2009).
- 4.3. Team Leader. Development of Fisheries Teaching and Learning Syllabus for Senior High Schools in Ghana. Curriculum Research and Development Division of Ghana Education Service, Ministry of Education (1997 – 2008).

5. Climate change-based consultancies

- 5.1. Coastal Biodiversity and Ecosystems Consultant. Climate change vulnerability and adaptation studies: effects of sea level rise on Ghana's coastal ecosystems and biodiversity. Environmental Protection Agency, Ministry of Science and Technology, Ghana. (1997 – 1999).

6. Academic Experience

- 6.1. Courses taught at graduate level: Research Methods/Statistics and Computing, , Biological Oceanography, Oceanographic Techniques, Law of the Sea, Estuarine ecology, Water Resource Management
- 6.2. Courses taught at undergraduate level: Oceanography, Fishery Biology, Coastal Hydrology, Plankton Ecology, Remote Sensing Applications in Fisheries & Marine Science, Coastal and Ocean Dynamics
- 6.3. Graduate theses supervision: Principal supervisor of 4 graduate theses

7. Oceanographic cruises/expedition

- 7.1. Plankton survey off the coast of Northumberland (North Sea). November, 1992. *R.V. Bernicia*. Courtesy University of Newcastle
- 7.2. Plankton survey off the coast of Ghana (Gulf of Guinea). January, 1994. *R.V. Kakadiamaa*. Collaboration between University of Ghana, University of Newcastle and Fisheries Department, Ghana
- 7.3. Benguela Current Oceanographic cruise. May – June, 2004. *R.V. Alexander von Humboldt*. Courtesy GCLME-BCLME collaboration.

8. Oral Presentations

- 8.1. Aquaculture and mariculture in sub-Saharan Africa. International Ocean Institute Training course on United Nations Agenda 21 and the Law of the Sea, Halifax, Canada. 10 June - 15 August, 1997. Oral
- 8.2. Sea turtle conservation education in Ghana. Oceanology International 2000: U.K. Marine Educators' Network Conference. Brighton, U.K. 7 – 10 March, 2000.
- 8.3. Zooplankton diversity in coastal waters of West Africa. Darwin Advanced Training Workshop on Marine Biodiversity of West Africa. Accra, Ghana. 8 – 19 January, 2001.
- 8.4. Occurrence of harmful microalgae species in Ghana. IOC-UNESCO Workshop on Harmful Marine Micro-algae in West Africa. Accra, Ghana. 29 October – 3 November, 2001.
- 8.5. Spatial and temporal dynamics of plankton communities in the Gulf of Guinea ecosystem. Dissertations Initiative for the Advancement of Limnology and Oceanography (DIALOG V) Symposium. Bermuda Biological Station for Research (BBSR) October 19 -24, 2003, Bermuda.
- 8.6. Effect of climate change on primary productivity in the Gulf of Guinea: a remote sensing approach. 24th Biennial Conference of the Ghana Science Association, Accra, Ghana. 1 – 4 August, 2005.
- 8.7. Productivity patterns in the GCLME with regard to its carrying capacity. First Regional Experts Working Group on Plankton and Benthos Analysis. Guinea Current Large Marine Ecosystem Project. 12 - 16 September, 2005. Accra, Ghana.
- 8.8. Managing coastal water quality in Ghana. Developing an ecosystem approach to managing Ghana's coastal resources. British Council, Accra. 10th January, 2006.

- 8.9. Productivity Assessment in the Guinea Current LME: a case study for operational oceanography in African Large Marine Ecosystems; (2) Ecosystem management approach in African large marine ecosystems. Workshop on Pan-African Large Marine Ecosystems/Global Ocean Observing Systems-Africa Leadership Workshop on Operational Oceanography and Remote Sensing. Cape Town, South Africa. 6 – 10 November, 2006.
- 8.10. Impact of climate change on long-term zooplankton distribution in the Gulf of Guinea upwelling region. Human and climatic forcing of zooplankton populations. International zooplankton production symposium. May 28 – June 1, 2007. Hiroshima, Japan.
- 8.11. Changing State of the Guinea Current LME in Relation to Climate Forcing and Ecosystem Impacts. 2nd Global Conference on Large Marine Ecosystems. Qingdao, China. 11 – 13 September, 2007.

9. **Grants, Awards, Funded Research**

- 9.1. Overseas Development Administration (UK) Scholarship for Postgraduate Research in Marine Biology at University of Newcastle, U.K. (1992 - 1994) (£15,000)
- 9.2. British Ecological Society Small Grant for zooplankton diversity studies in coastal waters of Ghana (1993) (£750).
- 9.3. International Ocean Institute Fellowship for Training Course on United Nations Agenda 21 and the Law of the Sea, Halifax, Canada. 10 June - 15 August, 1997. (CAN \$ 10,000)
- 9.4. A.G. Leventis Research Grant for Doctoral Studies in Marine Plankton dynamics at University of Ghana. (1997 - 2000). (\$4,800)
- 9.5. Intergovernmental Oceanographic Commission of UNESCO Grant for marine zooplankton studies in Ghana. (1998) (\$ 5,000)
- 9.6. UNIDO/UNDP Training Grant for analysis of Continuous Plankton Recorder samples under the Gulf of Guinea Large Marine Ecosystem Project. (1998) (\$5,500)
- 9.7. Darwin Initiative Fellowship for production of database and teaching pack on marine zooplankton of West Africa, under the Darwin Initiative Project on Marine Biodiversity and Capacity Building in the West African sub-region. (1997 – 1999). (£ 240,000).
- 9.8. Association of Commonwealth Universities, Split-site scholarship for completion of Doctoral Thesis in Marine Plankton tenable at University of Newcastle, U.K. (2000 - 2001). (£15,000)

10. **Publications**

- 10.1. Wiafe, G., Yaqub, B.H., Mensah, M., and Frid, C.L.J. (2008). Impact of climate change on long-term zooplankton biomass in the upwelling region of the Gulf of Guinea. *ICES Journal of Marine Science* 65: 318 – 324

- 10.2. Wiafe, G. (2007). Assessment of productivity with regards to the carrying capacity of the Guinea Current Large Marine Ecosystem for living marine resources. GLOBEC International Newsletter 143:38
- 10.3. Arkaah, A.B., Kaminski, M., Ogle, N., Kalin, R.M., Atta-Peters, D., Apaalse, L., Wiafe, G., and Armah, A.K. (2006). Early paleogene climate and productivity of the eastern equatorial Atlantic, off the western coast of Ghana. Quaternary International 148: 3-7.
- 10.4. Sovoe, S., Wiafe, G., Kakane, V.C.K, and Attua, E.M (2006). Effect of climate change on primary productivity in the Gulf of Guinea: a remote sensing approach. Journal of Ghana Science Association 8(2): 71 – 76.
- 10.5. Armah, A.K., Wiafe, G. and Kpelle, D. (2005): Sea Level Rise and Coastal Biodiversity in West Africa: A Case Study from Ghana. in Climate Change and Africa. (UNESCAP/Environment and Sustainable Development Division). (Ed.) Pak Sum Low, pp 204 - 217. Cambridge University Press. London.
- 10.6. Wiafe, G. (2005). Standard Operating Procedure for Plankton Sampling and Preservation in the Guinea Current Large Marine Ecosystem. UNIDO Report (UNIDO/EG/RAG/04/001/17 - 63)
- 10.7. Wiafe, G. (2002). Nutrient Pollution in Ghana. Thematic Area Paper For Stocktaking Meeting. UNIDO 31 pp.
- 10.8. Sywula, T., Wiafe, G., Sell, J. and Glazewska, I. (2002). Genetic subdivision of the upwelling copepod *Calanoides carinatus* (Krøyer, 1849) off the continental shelf of Ghana. Journal of Plankton Research 24 (5): 523 – 525.
- 10.9. Wiafe, G. (2001). Productivity in the Gulf of Guinea: Plankton Survey. Thematic Area Paper For Stocktaking Meeting under the Guinea Current Large Marine Ecosystem Project (PDF-B). UNEP/UNIDO 21 pp.
- 10.10. Wiafe, G., and Frid, C.L.J. (1999): Short-term temporal variability within coastal zooplankton communities. Journal of the Ghana Science Association (Special Edition) 2 (3): 122 – 128
- 10.11. Wiafe, G. and Frid, C.L.J. (1997): Hydrographic forcing and zooplankton temporal variation off the coast of Ghana, West Africa. In Evans, S.M., Vanderpuye, C.J. and Armah, A.K.(eds.), The Coastal Zone of West Africa: Problems and Management. Proceedings of the International Seminar on the Coastal Zone of West Africa. Penshaw Press, U.K. pp 149 - 159.
- 10.12. Wiafe, G. and Frid, C.L.J. (1996): Short-term temporal variation in coastal zooplankton communities: the relative importance of physical and biological mechanisms. Journal of Plankton Research 18 (8): 1485 – 1501
- 10.13. Agyekum, K., Wiafe, G. and Appiah A. (in press). Effects of environmental factors on phytoplankton distribution in a tropical coastal lagoon. (Journal of the Ghana Science Association).

11. Membership of Professional Bodies

- 11.1. Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)
- 11.2. Ghana Science Association
- 11.3. Coastnet, Ghana
- 11.4. American Society of Limnology and Oceanography
- 11.5. American Fisheries Society