

CLIMATE CHANGE AND POPULATION CONFERENCE ON AFRICA

3rd – 7th June, 2013

University of Ghana, Legon, Accra, Ghana

CC POP - GHANA 2013

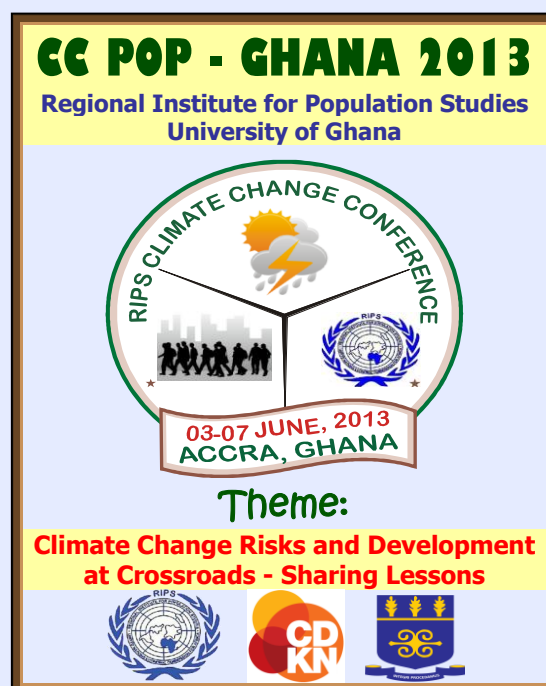
THEME

**“Climate Change Risks
and Development at
Crossroads
– Sharing Lessons”**



Climate & Development
Knowledge Network





Scientific Programme & Abstracts



40 Years of Regional Population Training & Research

THE REGIONAL INSTITUTE FOR POPULATION STUDIES



HISTORY

The Regional Institute for Population Studies (RIPS) was established in February 1972 by the United Nations and hence carried the name United Nations Regional Institute for Population Studies for a period. RIPS came into being in response to the growing demand for regional facilities for population research and training in Africa. This followed a recommendation made by the United Nations Economic Commission for Africa (UNECA) at its Ninth Session in 1968 and subsequent support given by African governments at the first meeting of the Conference of Ministers of UNECA in February 1971.

ACADEMIC PROGRAMMES

The Institute offers MA, MPhil and PhD degree courses. The Institute organizes seminars, workshops, ad hoc courses of study and in-service training in Demography and related fields at the request of governments and institutions mainly in English-speaking African Countries.

SCHOLARSHIP ON CLIMATE CHANGE

RIPS has emerged as one of the leading centres of excellence in climate change research for the past Six years through its multi-disciplinary Population, Environment and Development programme. Thus RIPS research on climate change focuses on a multidisciplinary approach and emphasising the role of population as an underlying cause of environmental change. We currently are running projects and training students for MPhil and PhD in areas of:

Climate Change and Health;

Climate Change and Food Security;

Climate Change and Reproductive Health;

Climate Change and Coastal Zone Management;

Climate Change and Disaster Risk Communication.

URL: <http://www.ug.edu.gh>; Email: rips@ug.edu.gh



TABLE OF CONTENTS



Messages from the Host	i
Media Brief / Press release	iv
Scientific Steering and Local Organising Committees	v
General Conference Information and Logistics	vi
Conference Programme at a Glance	vii
Exhibition / Sponsorship	viii
Session Moderators / Name Tag Colours	xi
Posters	xii
Monday 2nd June Programme At A Glance	1
Opening Ceremony Programme	1
Plenary 01, 02, 03	2
Tuesday 3rd June Programme At A Glance	4
Plenary 04	5
Parallel Sessions 01-06 Presentations	5
Wednesday 5th June Programme At A Glance	9
Field Trip to SIREC (Kpong), VRA Hydroelectric Power Plant (Akuse)	9
Thursday 6th June Programme At A Glance	10
Plenary 05	11
Parallel Sessions 7-12 Presentations	11
Friday 7th June Programme At A Glance	14
Plenary 06	15
Roundtable	15
Parallel Sessions 13-14 Presentations	16
Closing Ceremony Programme	17
Oral Abstracts	18
 Annex 1: Map of University of Ghana & Direction to Conference Venue	 43



MESSAGES FROM THE HOST



Pro - Vice Chancellor, ORID, University of Ghana, Legon, Ghana

Professor John Owusu-Gyapong
Welcome Address at Official Opening

Madam Chairwoman, I wish to charge the conference Chair to lead participants to end the conference with clear communiqué, for which I wish to suggest the following:

1. Need for increased state level support to credible local institutions to undertake rigorous policy-relevant climate change research and empirical assessments to inform climate negotiations, adaptation options and policy implementation in Africa.
2. Need for African Governments particularly African Ministers of Environment to expand climate negotiating teams to include researchers and scientists so as to realize a strong African position in global negotiations (I am glad the sector Minister himself is here).
3. Need to stage a process to commit national governments and regional blocks on the African continent to fund thematic climate change policy roundtables that allow robust policy-research interactions.

To conclude, and on behalf of the Management of the University of Ghana, with some present here, let us all congratulate ourselves for this commitment. On this note, Madam Chairwoman, I am pleased to officially welcome all of you to the University of Ghana and to this Special Conference. Enjoy the beauty of our great learning paradise, visit our diverse academic units and make some new friends.

You Are Welcome Once Again and Visit Again. I Thank You.

Director, Regional Institute for Population Studies

Professor Samuel Nii Ardey Codjoe

Madam Chairperson, the Regional Institute for Population Studies (RIPS) which was established in 1972 jointly by the United Nations in partnership with the Government of Ghana, has served as a regional centre for teaching and research training at the post-graduate level of population scientists in English-speaking countries in Africa. The Institute enjoyed enormous funding from the United Nations Population Fund (UNFPA) and was the leading demographic research and teaching centre in Africa. However in 1999, the UNFPA withdrew its funding which led to a decline in the activities of the Institute. Since 2006, the RIPS story has been dramatically rewritten for the better. RIPS now has an internationally recognized doctoral training programme of the highest repute, and the programme has at its core an extramurally-funded research mission that supports the various aspects of RIPS' work.

The Vision of the institute is "to be globally recognised as a leading centre for research and training in population health, population, and the environment". Its Mission is consistent with the mission of the University of Ghana, and it seeks to "build on its core strengths as a centre of excellence for high quality teaching and research" and "secure and sustain world-class competitive advantages".

Since its inception, RIPS has trained more than 600 population scientists working with diverse institutions globally. In recent times, RIPS has increased its student enrolment and attracting international students notable from Nigeria, Uganda, Cameroon, and Tanzania.

Furthermore, within the period 2005-2011, RIPS attracted research grants of about US\$ 5.6 million from diverse funding sources. These funds have been instrumental in supporting infrastructural development including computing and library resources, providing seed grants for research, international conference travel for students and staff, and above all, providing scholarships for Masters and Doctoral training as well as staff development.

As we look into the future, the vision is to continue to grow and maintain RIPS' international recognition as a leading centre for excellence in research and training in the areas of population, health, and population-environment interrelationships. The vision is centered on four key words: Improve RIPS' current circumstances, Expand and Propagate the best aspects of the institute's portfolio, but most importantly, Sustain the momentum generated at RIPS.



MESSAGES FROM THE HOST

❖ Improve

Attracting Additional Research Grants

RIPS current funding sources show a change from RIPS' traditional UNFPA funding in the past, to a more diversified set of donors in recent times. Prominent key funders include the IDRC of Canada, USAID, NIH and EU. These funders have been attracted to RIPS not only because of the quality of its work, but also because of its position as arguably the leading population and environment program on the continent. The vision is to extend the potential funding base by including organizations such as Danish International Development Agency (DANIDA), Department for International Development (DFID), International Union for Conservation of Nature (IUCN), United States Department of Agriculture (USDA), etc., who also fund work in the population-environment nexus, and specifically climate change based research, as well as other funders interested in health research particularly Chronic Non-Communicable Diseases (CNCD).

Strengthening PhD Training – Introduction of Course Work and Practical Training

RIPS has moved from the past where it focused heavily on M. A. training to a stage where PhD training has become more prominent. This has mainly been achieved through an excellent collaboration with Penn State University (PSU) and the Carolina Population Center (CPC) at the University of North Carolina-Chapel Hill (UNC-CH), – which has a sandwich programme in which RIPS students spend one year. The year in residence facilitates student professional development and our students come back with a sounder knowledge of dissertation proposal writing, exposure to top library facilities, frequent experience of research seminar series, and the opportunity to receive mentoring from leading external researchers, many of whom will remain in the students' intellectual networks, long after their PhDs.

❖ Expand and Propagate

Most of the achievements of RIPS have been done with a very skeletal staff strength and limited space. The challenges of having a small teaching staff for research development and supervision of a growing cadre of M. Phil and PhD students, particularly given the very heavy mentoring that is the signature of RIPS, is obvious. RIPS is at a point where it should embark on a massive expansion and propagation drive, and the vision is to undertake this through three key activities, i.e., (i) *Increasing Academic Staff Strength*, (ii) *Building of an Office Complex, Lecture Halls and a State-of-the-art Conference Facility* and (iii) *Publication of the State of the Ghanaian Population Report and Hosting of an Annual International Conference* of which I am proud to announce that this is the second in the series following the Climate Change and Population in Africa conference which was held from 1st to 4th July 2012.

❖ Sustain

Finally on sustainability, RIPS intend to pursue a vigorous "grantsmanship" so as to increase the investment portfolio at RIPS. The principal of this investment will be maintained at all times, and will only be built on, however, interests accruing from it would be used to finance infrastructural development including computing and library resources, providing seed grants for research, motivating faculty members to publish, and above all providing scholarships for Masters and Doctoral training as well as staff development.

Madam Chairperson, in conclusion, let me say that RIPS is a great academic institution that we are all proud of. We have braced ourselves to work harder to achieve our goals and we extend a hearty welcome to all participants for a very fruitful conference. Thank you.

From the Conference Chairperson & Convener

Dr Delali Dovie **Conference Chair & Convener**

This climate and development knowledge conference is intended to break the huge barriers that have existed amongst potential stakeholders over the years. It represents a call for state and non-state actors from industry including manufacturing and ICT, private businesses, and civil society to join researchers in Accra to pursue a new partnership agenda on threats posed to humanity by climate change. We believe that



MESSAGES FROM THE HOST



Energy usage (including electricity, fuel, mechanisation, etc) is a uniting factor when it comes to climate change because the whole of society depends on some form of energy to develop.

Challenges posed by global warming and related climate changes are no longer merely potential threats but inevitable reality. As a result of global warming, the climate in Africa is predicted to become more variable, and extreme weather events are expected to be more frequent and severe. These include increasing risks of droughts and flooding and inundation due to sea-level rise in the continent's coastal areas with the potential to reduce economic prospects and national development. Climate – sensitive sectors such as agriculture and fisheries, forestry, tourism; coastal destruction from sea-level rise; variable water resources and changes in energy expenditures constitute severe market impacts. Additionally there are other several sectors that will be affected and because they are difficult to monetise they are often omitted in national accounting, covering the effects of temperature increase on health, ecosystems (e.g. loss of biodiversity), and human settlements.

The effects, impacts and outcomes of climate change on development are not new but are said to be increasing at faster rates, becoming more evident and uncertain and thus putting the planet earth under pressure. This suggests that development planning should be forward looking and to also consider anticipatory adaptation as important form of response rather than only reactive. Mainstreaming climate change and variability as well as disaster risks into various sector planning should be enforced at all levels of planning, and personnel appropriately empowered to do the implementation. Why the omission of climate change as core element of several national and regional development agenda has been a source of worry for a number of scientific researchers because global warming is a clear outcome of our development pathways, activities to attain such plans should consider mainstreaming climate change at the implementing level. We are all part of the problem and should also become part of the solution as every meal consumed and liquid ingested are a result of some form of energy whether natural or human, carrying some form of emission, directly or indirectly. In conclusion, whilst climate change as a development issues may be beyond science, it is only science that has the answers and hence it is appropriate that science precedes policy and advocacy for informed decision-making.

As the theme depicts, the conference is geared towards providing a common platform for lessons towards Green Growth of our economies, and I have invite you on behalf of the Scientific Steering Committee to make candid contributions that would have impacts beyond the conference.

On behalf of the Scientific Steering Committee, We wish to Thank You for your Presence and Expected Contributions to Grace "CCPOP-Ghana 2013!"



The 2nd International Climate Change & Population Conference on Africa is being organised and hosted by the Regional Institute for Population Studies from 3rd to 7th June 2013. The institution of this conference is part of efforts to urge and harmonise the meaningful dissemination of scientific results that inform policy, awareness creation, advocacy, development planning and strategic frameworks because mere talks yield no results. RIPS recognises African solutions to the challenges of climate change which has informed its Population, Environment and Development Research and Training over the years. This includes working with industry, the private sectors and also the policy making community at all possible levels with the relevant stakeholders.

The development challenge of climate change is not merely attributable to the impacts it will have on development and life support systems but also it is because most developing countries especially in Africa will be highly sensitive from the already worsening existing developmental challenges which the United Nations Framework Convention on Climate Change (UNFCCC) identifies to include:

low GDP per capita; widespread, endemic poverty; weak institutions; low levels of education; low levels of primary health care; little consideration of women and gender balance in policy planning; limited access to capital, including markets, infrastructure and technology; ecosystems degradation; complex disasters; conflicts; etc.

Whilst climate change stands out as a clear threat to development, it also offers some opportunities for development including innovation and poverty reduction. Yet very limited information exists to unearth such benefits because the emphasis has been on the negative aspects, and thus making this conference very significant in terms of science, innovation, policy and development. Some of these are:

1. Water resource availability as basis for enhanced agricultural value chain and livelihood diversification
2. Drudgery reduction amongst women and Small, Micro and Medium Enterprises (SMMEs) development through appropriate technology for local industries
3. Biotechnology in aspects of early maturing, and drought tolerant varieties (with safe Genetically Modified Organisms - GMOs possible) in water stressed conditions
4. Appropriate biomass energy (e.g. crop residue, biofuel tree plantations) with least competition with other resources
5. Clean Development Mechanisms (CDM), technologies (CDT) and Products (CDP)
6. Enhanced innovation and diversification of approaches to resource use and management

However, without the appropriate partnership informed by appropriate information, such innovations cannot be attained hence the need to bring together relevant resources including human to bear on the issues of climate change and green growth on the continent. This conference thus has become a place for exchanging knowledge and experiences that transcend science to include development as one would not have to travel beyond the continent of Africa to listen to African stories based on unfamiliarity and little experience. That is one of the main reasons why we have speakers that have the relevant information to share in order to move the continent forward. Among them are: *Ms Maria Helena Semedo* (UN-FAO Regional Representative for Africa), *H.E. Ms Marie-Laure Akin-Olugbade* (African Development Bank, Ghana), *Prof. John Oucho* (African Migration & Development Policy Centre, Nairobi, Kenya), *Dr. Abdulai Salifu* (Director General of the CSIR), *Dr. Hans Adu-Dapaah* (Crops Research Institute), *Prof. Dr. Paul Vlek* (West African Science Service Centre on Climate Change & Adapted Land Use, WASCAL). Therefore it is not coincidence that the Honourable Minister of Environment, Science, Technology & Innovation, Ghana accepted to be part of this gathering with over 100 participants from more than ten countries.

Thus the Objectives of the conference are threefold:

1. To bring closer the eminent threat of global warming to the doorsteps of key but forgotten stakeholders in development such as civil society, industry and business, to interact with researchers, policymakers and politicians on and how to move forward.
2. To share lessons of climate innovation with major stakeholders that demonstrates that scientific research if done well remains relevant to solving societal problems in the sub region.
3. To contribute to bridging the research – policy – industry gaps on climate and knowledge mainstreaming into development and to encourage the participation of state and non-state actors such as private sector businesses

SCIENTIFIC STEERING COMMITTEE

SCIENTIFIC STEERING & LOCAL ORGANISING COMMITTEES

Scientific Steering Committee

Name	Subject Area Interest
Delali Benjamin Dovie, <i>PhD</i>	Policy Mainstreaming, <i>Chair & Convener</i>
Opoku Pabi, <i>PhD</i>	Land Use and Land Cover, <i>Member</i>
Mawuli Dzodzomenyo, <i>PhD</i>	Public Health & Disaster Risks, <i>Member</i>
Eno Deborah Anwana, <i>PhD</i>	Biodiversity and Conservation, <i>Member</i>
Margaret Delali Badasu, <i>PhD</i>	Population and Urbanisation, <i>Member</i>
John Anarfi, <i>PhD</i> (Prof)	Human Demography, <i>Member</i>
Marilyn Fenella Abbey	<i>Conference Assistant & Secretary</i>

Local Organising Committee

Conference Secretariat

Delali Benjamin Dovie; *Chair & Convener*
Faith Oladimeji; *Conference Manager*
Marilyn Abbey; *Conference Assistant / Secretary*

Hospitality Team

Marilyn Abbey - Focal Point

Volunteer Services

Paul Hoya - Focal Point

Registration Protocol

Beatrice Richardson - Focal Point

Venue Logistics

Edwin Foli - Focal Point

Dinner Working Group

Mary Barima - Focal Point



The Registry and Great Hall Views of University of Ghana

www.ug.edu.gh



GENERAL INFORMATION & LOGISTICS



Accommodation

The two main accommodations to be used by meeting participants are the University Guest House and the African Studies Chalets. They are easy to find once you get to the University Ghana Campus. You may also inquire from the security post at the main entrance of the university. Note that certain taxis / cars may not be allowed in so let them know that you are attending the Climate Change Conference at ISSER organised by **RIPS**. You may call the following number for attention: +233 (0)209571090

Restaurants

There are several eating places on campus ranging from traditional restaurants "chop bars" to sophisticated settings. The campus accommodations have their own restaurants and bars from which both local and European dishes are available and reasonably priced. Amounts from \$3 - \$10 should give you an excellent meal around the meeting venue but you must be prepared to spend more for a buffet or extras. You will also find eating places in all the residences on campus, the closest to the meeting venue is the Night Market close to the International Students Hostel. You do not have to go outside the campus to find food. There is also a restaurant bordering the meeting venue.

Transportation

Taxicabs are all over and plying between the University of Ghana Campus and the Legon Lorry Park / bus stop (although just a walking distance), from where you can connect to Accra CBD and other suburbs. In most of the cases, you do not have to hire a taxi. Mini and big buses are also available, again on the University of Ghana campus and the bus stops outside the main University entrance. When in central Accra, you can join any bus or taxi heading towards Madina, Adenta, Atomic, and Ashale Botwe, and get off at the Pentagon Residence, Legon Bus Stop or Police Station opposite the old university entrance, waling distance or short drive to meeting venue.

Shops & Banks

There are various forms of shops in Accra, ranging from table top to kiosks, tuck shops and supermarkets and shopping malls. On campus, you will find smaller shops and tuck shops. There is a supermarket around the university basic schools, central cafeteria & the international students' hostel, easy to reach on foot, and Banks. You may also visit the student halls for

other services and the central cafeteria around the athletic oval (refer to map). The closest Accra shopping mall is the Accra Mall (about 3 km from the University Campus on your way to the CBD). Get off at the Tetteh-Quarshie interchange and cross left to the Spintex Road.

Pharmacies, drug stores and clinic

These are also available on campus and within some of the halls (e.g. Legon Hall Annex B) where you can purchase simple medications. There is a campus clinic located within the Central Cafeteria. The university hospital is behind the Police Station, opposite the old University entrance which is ready to assist with all cases.

Laundry

The two major laundries on campus are found in the Legon Hall (main) and opposite the Faculty of Arts building on your way to the University Guest Centre. The other is at the Akuafo Hall car park and opposite Crops Science Department. Guest Centres, Lodges / Hotels also offer such service.

Security

Although security is not a serious issue in Ghana, and only involving petty stealing, be alert and call for help. Keep all valuables with you (e.g. credit card, cameras, passports, money, laptop). Do not leave valuables in your hotel rooms. Beware of roaming taxicabs already having passengers.

Telephone

The campus is full of telephone machines belonging to different telephone operators. Card telephones work on the Vodafone Network whilst MTN operates other forms of services. For international calls, dial 00 followed by the country code and the number. The various gsm / cell phone providers are Tigo, Vodafone, MTN, Expresso, and Zain, all that you need is a chip that costs around \$0.50, and registration and you are connected to the rest of the world. Vendors are easily located.

Volunteers and other contacts

Please make use of the Volunteers at the meeting venue, whose name tags are clearly marked "**CONFAB STAFF**". The language of the Ghanaian is courtesy and not always about rights so observe that and be polite even if you insist on something.

Conference Secretariat Phones:

+233 (0)302500274 / +233 (0)209571090



Conference Time Table At A Glance

	08:00-9:00	09:00 – 10:30	10:30 – 11:00	11:00-12:30	12:30-13:30	13:30-15:00	15:00-15:30	15:30-17:00	17:00-19:00
Sunday 2ND JUNE							WELCOME RECEPTION / EARLY REGISTRATION Venue: ISSER Garden, Around RIPS, Legon		
Monday 3RD JUNE	REGISTRATION	OFFICIAL OPENING <i>Environment Minister – Ghana</i>	BREAK 1 / POSTER	PLENARY 1 Ms Maria H. Semedo <i>UN-FAO Africa Regional Representative</i>	LUNCH	PLENARY 2 Prof Dr. Paul Vlek WASCAL	BREAK 2 / POSTER	PLENARY 3 Dr. Hans Adu- Dapaah <i>Crops Research Institute, CSIR</i>	
Tuesday 4TH JUNE	REGISTRATION	PLENARY 4 Ms Marie-Laure Akin-Olugbade <i>African Development Bank Resident Representative</i>	BREAK 1 / POSTER	PARALLEL SESSIONS 1. Climate change, water and sanitation and health in developing countries [Part 1] 2. Gender poverty and climate change mainstreaming	LUNCH	PARALLEL SESSIONS 3. Indigenous knowledge systems and climate change adaptation 4. Agriculture fisheries and food security in the context of climate change [Part 1]	BREAK 2 / POSTER	PARALLEL SESSIONS 5. Climate change, water and sanitation and health in developing countries [Part 2] 6. Government sector policy experiences with climate change	PUBLIC LECTURE / POSTER
Wednesday 5TH JUNE		OFFICIAL CONFERENCE FIELD TRIP 1. Carbon / Emissions Project (Soil and Irrigation Research Centre (SIREC), 2. Akuse HEP, 3. Shai Hills Resource Reserve							
Thursday 6TH JUNE	REGISTRATION	PLENARY 5 Dr. Abdulai Salifu <i>Director-General CSIR, Ghana</i>	BREAK 1 / POSTER	PARALLEL SESSIONS 7. Agriculture fisheries and food security in the context of climate change [Part 2] 8. Climate change and vulnerability	LUNCH	PARALLEL SESSIONS 9 & 10 combined. Climate & Development Network (CDKN) Climate Change Policy in Africa Panel Discussion	BREAK 2 / POSTER	PARALLEL SESSIONS 11. Population and Human Development 1 [Environmental Change and Policy] 12. Population and Human Development 2 [Urbanisation and Population Growth]	CONFERENCE DINNER & AWARDS CEREMONY
Friday 7TH JUNE Population Day	REGISTRATION	PLENARY 6 RIPS Anniversary Lecture <i>Speaker:</i> Prof John Oucho <i>Kenya</i>	BREAK 1 / POSTER	ROUNDTABLE Mortality, With Emphasis on Maternal Mortality in Ghana	LUNCH	PARALLEL SESSIONS 13. Maternal and Child Mortality 14. Population Health and Fertility	OFFICIAL CLOSING EVENT IWMI CC STRATEGY LAUNCH CLOSING ADDRESS RECEPTION		



OUR MAJOR SPONSOR IS THE CDKN

The Climate & Development Knowledge Network (CDKN) is the Major Sponsor of the 2nd International Climate Change and Population Conference on Africa. Funding was made available through the Project, "A Climate Change Risk Communication Framework for Coastal Urban Development Policy". Congratulation & Thanks to CDKN, the Only Platinum Award Sponsor.



**Climate & Development
Knowledge Network**

CDKN is a convener, knowledge broker and think tank. CDKN achieves these roles through working across the areas of Technical Assistance, Research, Knowledge Management, Partnerships, and Negotiations Support. WEBSITE: www.cdkn.org



EXHIBITION & SPONSORSHIP



Our Distinguished Guest Exhibitor is the United Nations Food & Agriculture Organisation.

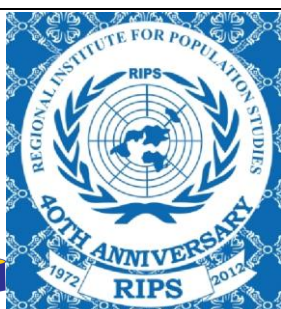
You are Invited to the UN-FAO Stand / Booth During the Conference.



The UNFPA, Ghana is a Co-Sponsor of the Population Day Events.

The Scientific Steering Committee Recognises UNFPA as a SILVER SPONSOR.

Congratulation!



Climate & Development
Knowledge Network

RIPS POSTER EXHIBITION

Visit the RIPS Stand for Updates on the RIPS – CDKN Climate Change Project in Ghana and Other Resources. We are Home to Excellence for Development & Policy.



EXHIBITION & SPONSORSHIP



X

**The Institute of
Statistical, Social
and Economics
Research (ISSER),
University of
Ghana Partially
Supports CCPOP-
Ghana2013
The Scientific
Steering
Committee
Recognises ISSER
as a BRONZE
SPONSOR.**

Congratulation!



**NEWMONT GHANA
has generously
contributed to the
CCPOP-Ghana2013
in the Bronze
Sponsors Category
deserving our
commendation and
appreciation.**

Congratulation!



SESSION MODERATORS / NAME TAG COLOURS



SESSION	NAME	AFFILIATION
Plenary 01	Dr. Delali B. Dovie	Regional Institute for Population Studies, University of Ghana, Legon Ghana
Plenary 02	Prof. Samuel NA Codjoe	Regional Institute for Population Studies, University of Ghana, Legon Ghana
Plenary 03	Prof. Stephen Kwankye	National Population Council, Accra, Ghana
Plenary 04	Prof. Felix Asante	Institute of Statistical, Social and Economic Research, University of Ghana, Legon, Ghana
Plenary 05	Dr. Shehnaaz Moosa	Climate and Development Knowledge Network, South Africa
Plenary 06 Population Day	Dr Bernard Coquelin	UNFPA Ghana Country Representative
CDKN Panel	Winfred Nelson	National Development Planning Commission, Accra, Ghana
Population Roundtable	Prof. Francis Dodoo	Regional Institute for Population Studies, University of Ghana, Legon Ghana
Oral Parallel 01	Clive Mutunga	Population Action International, Washington DC, USA
Oral Parallel 02	Dr. Comfort Ogunleye-Adetona	Department of Geography and Environmental Management, University of Ilorin Kwara State, Nigeria
Oral Parallel 03	Prof. Samuel NA Codjoe	Regional Institute for Population Studies, University of Ghana, Legon Ghana
Oral Parallel 04	Idowu Oladele	Department of Agricultural Economics and Extension, North West University, Mafikeng Campus South Africa
Oral Parallel 05	Dr. Mawuli Dzodzomenyo	School of Public Health, University of Ghana, Legon Ghana
Oral Parallel 06	Dr. Adeola Olajide	Department of Agricultural Economics, University of Ibadan, Ibadan Oyo State, Nigeria
Oral Parallel 07	Dr. Moses Kwadzo	Department of Agric. Economics & Extension University of Cape Coast, Ghana
Oral Parallel 08	Prof. Ovuyovwiroye Odjugo	University of Benin, Nigeria
Oral Parallel 11	Prof. Ama Aikins	Regional Institute for Population Studies, University of Ghana, Legon Ghana
Oral Parallel 12	Prof. Francis Dodoo	Regional Institute for Population Studies, University of Ghana, Legon Ghana
Oral Parallel 13	Dr. Delali M. Badasu	Regional Institute for Population Studies, University of Ghana, Legon Ghana
Oral Parallel 14	Prof. John Anarfi	Regional Institute for Population Studies, University of Ghana, Legon Ghana

NAME TAG COLOURS [SEE BAND BELOW COUNTRY]

Presenters	Blue / Cyan
Confab Staff	Yellow
Plenary Speakers	Red
Steering Committee	Purple
Plain / White	NON



POSTERS

- CCPOP - 01**
Coverage of indigenous Knowledge system in Extension Services delivery in two regions of Nigeria and South Africa: A content Analysis.
KOLAWOLE Ayorinde E: North West university, Mafikeng Campus, Department of Agricultural Economics and Extension, School of Agriculture, North West University Mafikeng, Mmabatho South Africa
Keywords: Agriculture, Farmers, Indigenous Knowledge, Livelihoods
- CCPOP - 02**
A Climate Change Risk Communication Framework for Coastal Urban Development Policy
DOVIE Delali B¹, Codjoe Samuel NA¹, Anwana Deborah E², Winfred Nelson A³, Dotse Samuel I⁴: Regional Institute for Population Studies, University of Ghana, Legon, Ghana, University of Calabar, Calabar, Nigeria & University of Oyo, Nigeria, National Development Planning Commission, Accra, Ghana, HATOF Foundation, Accra, Ghana.
Keywords: Climate & Development Knowledge Network (CDKN), CRiSTAL, Policy Mainstreaming, Adaptation Learning
- CCPOP - 03**
REDD+ Benefit sharing mechanism: analyzing legal, political and institutional options
FEUDJIO Mireille¹, Minang Peter², Alemagi Dieudonne¹: ¹World Agroforestry Centre, ²World Agroforestry Centre, Nairobi, Kenya.
Keywords: Benefit Sharing Mechanism (BSM), Cameroon Vision 2035, Policy, REDD+
- CCPOP - 04**
Indigenous knowledge systems and climate change adaptation
HARRISON UE¹, Bisong FE¹, Udoma GM²: ¹Department of Geography and Environmental Science, University of Calabar, Nigeria. ²Fadama III Development Project, Akwa Ibom State.
Keywords: Agroforestry, Awareness, Food Security, Participatory Approach
- CCPOP - 05**
Contemporary Music and Adolescent Sexual Risks: Implications for Sexually Transmitted Infections in Metropolitan Lagos, Nigeria
ADEYEMI Ezekiel, Olagbemi Andrew: Department of Sociology, Lagos State University, Ojo Lagos Nigeria
Keywords: Infections, Focus Group Discussion, Sexual Activity, Sexual Behaviour,
- CCPOP - 06**
Diversity and Spatial structure of benthic macro-invertebrates community of Calabar River, Nigeria: Implications for bio-monitoring of river environmental quality
UTTAH Chinasa¹, Uttah Emmanuel C²: ¹Department of Geography and Environmental Science, University of Calabar, Calabar, ²Department of Biological Sciences, Cross River University of Technology, Calabar, Nigeria
Keywords: Carrying Capacity, Diversity, Environmental Quality, River Quality,
- CCPOP - 07**
Pollution Biotic Index and the Biota Indicative Signatures of transects in Calabar River around a busy jetty facility in Calabar, Nigeria
UTTAH Chinasa¹, Emmanuel C. Uttah²: ¹Department of Geography and Environmental Science, University of Calabar, Calabar, Nigeria, ²Department of Biological Sciences, Cross River University of Technology, Calabar, Nigeria
Keywords: Environmental Quality, Diversity, Pollution, River

**MONDAY 3RD JUNE 2013****❖ OFFICIAL OPENING****❖ DAY 1 SCIENTIFIC TIME TABLE AT A GLANCE****08:00-09:00****PARTICIPANTS' REGISTRATION****09:00-10:30****OFFICIAL OPENING**

Dr. Joseph Oteng-Adjei, Honourable Minister

Ministry of Environment, Science, Technology & Innovation, Ghana

10:30-11:00**BREAK 1****11:00-12:30****PLENARY 1: Ms Maria Helena Semedo**

UN-FAO Regional Representative for Africa

12:30-13:30**LUNCH****13:30-15:00****PLENARY 2: Prof. Dr. Paul Vlek**

West African Science Service Centre on Climate Change & Adapted Land Use, WASCAL

15:00-15:30**BREAK 2****15:30-17:00****PLENARY 3: Dr. Hans Adu-Dapaah**

Crops Research Institute, Council for Scientific & Industrial Research, Ghana

17:00-18:00 POSTERS



MONDAY 3RD JUNE 2013



2

PLENARY 01

Speaker : H.E. Ms Maria Helena Semedo
UN-FAO Regional Representative for Africa

Chair : Dr. Delali B. Dovie, Regional Institute for Population Studies, University of Ghana,
Legon, Ghana

Venue : Auditorium **Time:** 11:00 – 12:30 Hrs

Abstract

12:30-13:30 : **LUNCH**

PLENARY 02

Title : The WASCAL Experience and Capacity Building in West Africa

Presenter : Prof. Dr. Paul Vlek
West African Science Service Centre on Climate Change & Adapted Land Use,
WASCAL

Chair : Prof Samuel Nii Ardey Codjoe, Regional Institute for Population Studies, University
of Ghana, Legon, Ghana

Venue : Auditorium **Time:** 13:30 – 15:00 Hrs

15:00-15:30 **BREAK 2**

PLENARY 03

Title : Promoting Climate Smart Agricultural Research – The Case Of CSIR, Ghana

Presenter : Dr. Hans Adu-Dapaah
Director, Crops Research Institute, CSIR-Ghana

Chair : Prof. Stephen Kwankye, National Population Council, Accra, Ghana

Venue : Auditorium **Time:** 15:30 – 17:00 Hrs

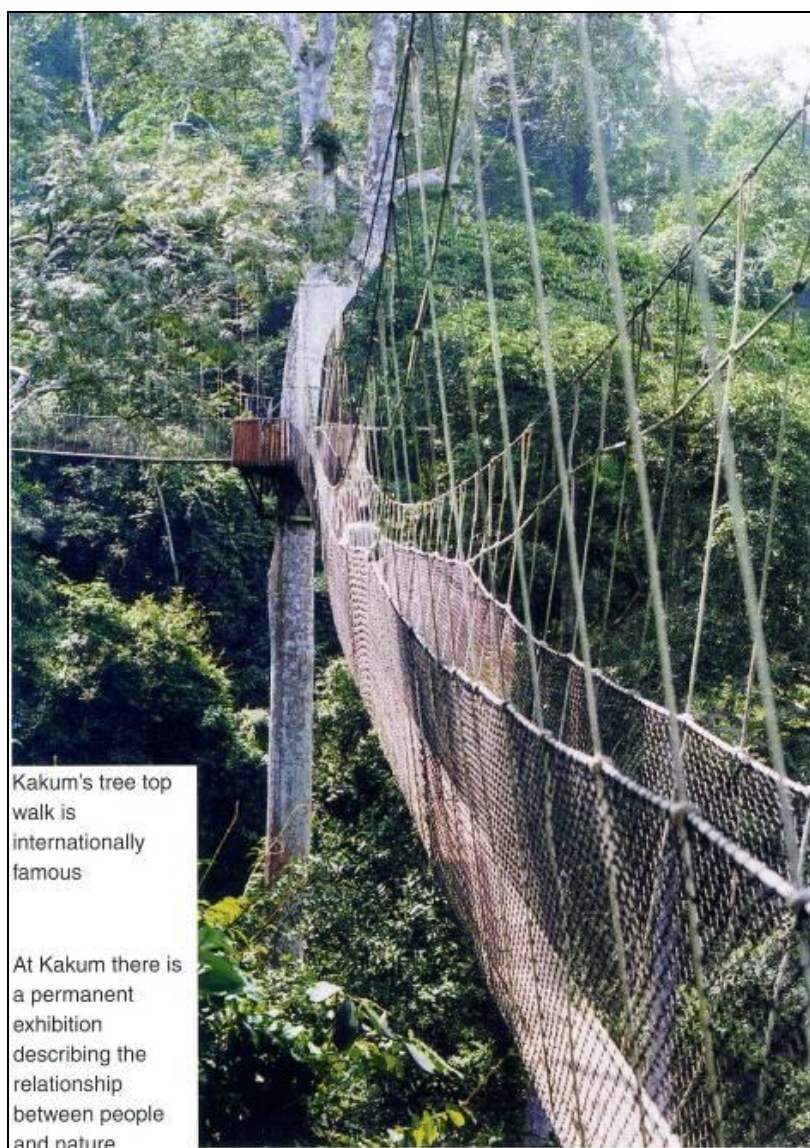
Abstract

Tackling food security challenges that limits the quantity of food produced under a given climate; and quantity needed by a growing and changing population must involve both mitigation and adaptation while maintaining a focus on its social dimension. Research has demonstrated that increases in temperature and changes in both rainfall pattern and amounts has increased the incidence of drought, significantly affected crop yields and increased pest damage. One major challenge to achieving food security is the absence of risk management for poor farmers for adverse bio-ecological and climatic conditions that significantly reduce crop yields. Other challenges include weak institutional structures; and conflicting and perverse policy incentives to ensure food security. Thus on-going smart agricultural research programs at CSIR-CRI has focused on the development of drought tolerant maize and legume varieties; development of early, medium and full season crop varieties adapted to the different agro-ecological zones; and development of cropping systems that maximizes the capture of resources for increased

**MONDAY 3RD JUNE 2013**

productivity, increased CO₂ capture and soil amelioration. CSIR-CRI has also been working to build the resilience and capacity of farmers and agricultural and food systems to adapt to climate change. This paper shows a high adoption rate of climate smart agricultural interventions among farmers especially in areas with low crop yields/marginal soils and drought prone areas. It is further argued that the introduction of climate smart agricultural interventions should be supported by institutional and policy reforms, such as land tenurial changes, gender mainstreaming and governance arrangements to successfully address climate change issues and food security

Mitigating Through Conservation



Kakum's tree top walk is internationally famous

At Kakum there is a permanent exhibition describing the relationship between people and nature

Courtesy: Ghana Forestry Commission (WD)



DAY 2 SCIENTIFIC TIME TABLE AT A GLANCE

08:00-09:00

REGISTRATION

09:00-10:30

PLENARY 4: **Ms Marie-Laure Akin-Olugbade**

The Resident Representative, African Development Bank, Ghana

10:30-11:00

BREAK 1

11:00-12:30

PARALLEL SESSION 01: Climate change, water and sanitation and health in developing countries [Part 1]

PARALLEL SESSION 02: Gender, poverty and climate change mainstreaming

12:30-13:30

LUNCH

13:30-15:00

PARALLEL SESSION 03: Indigenous knowledge systems and climate change adaptation

PARALLEL SESSION 04: Agriculture, fisheries and food security in the context of climate change [Part 1]

15:00-15:30

BREAK 2

15:30-17:00

PARALLEL SESSION 05: Policy experiences with climate change

PARALLEL SESSION 06: Climate change, water and sanitation and health in developing countries [Part 2]

17:15

PUBLIC LECTURE & POSTER RECEPTION



TUESDAY 4TH JUNE 2013

PLENARY 04

Speaker : **Ms Marie-Laure Akin-Olugbade**

The Resident Representative, African Development Bank, Ghana

Chair : **Prof. Felix Asante**, Institute of Statistical, Social & Economic Research (ISSER), University of Ghana, Legon, Ghana

Venue : Auditorium

Time: 09:00 – 10:30 Hrs

10:30-11:00: **BREAK 1**

PARALLEL SESSIONS 01 – 06 PRESENTATIONS

LATE MORNING PRESENTATIONS [11:00 – 12:30]

SESSION 01: Climate change, water and sanitation and health in developing countries [Part 1]

MODERATOR: **Clive Mutunga**, Population Action International, Washington DC, USA

VENUE: Auditorium

TIME: 11:00-12:30

11:00-11:20 **Measuring Perceptions of Diarrhoeal Disease Risk in a Climate Sensitive Environment**

ABU Mumuni: Regional Institute for Population Studies, University of Ghana, Legon, Ghana

11:20-11:40 **Climate Change and Health in Nigeria**

ENGLAMA Esther: Department of Geography, FCT College of Education, Zuba Abuja, Nigeria

11:40-12:00 **Exploring The Influence Of Climate Variability On Schistosomiasis Prevalence In The Ga Districts Of Ghana**

LARBI Reuben T: Regional Institute for Population Studies, University of Ghana, Legon, Ghana

12:00-12:20 **Influence of the Intra-annual and inter-annual climate variability on prevalence of malaria in Calabar, Nigeria**

UTTAH Emmanuel C¹, Chinasa Uttah²: ¹Department of Biological Sciences, Cross River University of Technology, Calabar, ²Department of Geography and Environmental Science, University of Calabar, Calabar, Nigeria

12:20-12:30 **General Discussion & Conclusion**

SESSION 02: Gender, poverty and climate change mainstreaming

MODERATOR: **Comfort Iyabo Ogunleye-Adetona**, Department of Geography and Environmental Management, University of Ilorin Kwara State, Nigeria

VENUE: Seminar Room

TIME: 11:00 – 12:30



11:00-11:20	Teachers' Assessment Of Climate Change On Gender And Health In College Of Education Zuba, Abuja. OKOJIE Monday U: Department Of Social Studies FCT College Of Education Zubap. Abuja, Nigeria.
11:20-11:40	Gender Occupational Adaptation Preferences to Extreme Climatic Events in Poor Urban Communities in Accra EWOODZIE Dorcas: Regional Institute for Population Studies, University of Ghana, Legon, Ghana
11:40-12:00	Gender, Poverty And Climate Change In Nigeria. ZAKARIAH Tanimu T: Department Of Geography FCT College Of Education Zuba Abuja, Nigeria.
12:00-12:20	Linking gender and poverty to climate change: What can policy do? NYAMBI Gwendoline N: Department of Agricultural Economics and Extension, North West University Mafikeng Campus, Mmabatho, South Africa
12:20-12:30	General Discussions & Conclusion
12:00-13:30	LUNCH BREAK

EARLY AFTERNOON PRESENTATIONS [13:30 – 15:00]

SESSION 03: Indigenous knowledge systems and climate change adaptation	
MODERATOR:	Samuel Nii Ardey Codjoe , Regional Institute for Population Studies, University of Ghana, Legon Ghana
VENUE:	Seminar Room
TIME:	13:30 – 15:00
13:30-13:50	Sequential-Multiple Cropping Systems: An Indigenous Climate Change Adaptation Practice In Nigeria. ESSOKA, Pauline A, Okon Asuquo E: Department of Geography and Environmental Science, University of Calabar, Nigeria
13:50-14:10	Get Them Involved: Integrating Global And Indigenous Knowledge Systems. KWADZO Moses: Department of Agric Economics & Extension, University of Cape Coast, Sasakawa Centre, Cape Coast, Ghana
14:10-14:30	Indigenous Land Management Activities for increased Soil Carbon Sequestration and climate change mitigation in Africa OLADELE Oladimeji ¹ , Ademola Braimoh ² : ¹ Department of Agricultural Economics and Extension, North-West University, Mafikeng Campus, South Africa. ² Agricultural and Rural Development, World Bank, Washington DC, USA
14:30-14:50	Communicating climate change to rural Nigerians: why Indigenous African Communication Systems matter MERIBE nnaEmeka C: Department of Strategic Communications, La Trobe University, Melbourne, Australia



TUESDAY 4TH JUNE 2013



14:50-15:00 **General Discussions & Conclusion**

SESSION 04: Agriculture, fisheries and food security in the context of climate change [Part 1]

MODERATOR: **Idowu Oladele**, Department of Agricultural Economics and Extension, North West University, Mafikeng Campus, South Africa

VENUE: Auditorium

TIME: 13:30 – 15:00

13:30-13:50 **Preliminary study on the impact of climate change and socio-economy on some farming communities in northern Ghana**

BADMOS Biola K^{1□2}, Grace B. Villamor^{2□3}: ¹Kwame Nkrumah University Of Science and Technology, Ghana; ²West African Science Service Centre on Climate Change and Adapted Land Use, WASCAL), centre for Development Research (ZEF), University of Bonn, Germany

13:50-14:10 **Climate Change, Food Security, Economic Survival And The Future Of Conflicts In Nigeria.**

ADEJOH Pius E: Department of Sociology Faculty of Social Sciences University of Lagos, Akoka, Nigeria

14:10-14:30 **Crop Farmers' Understanding And Awareness Of Climate Change And Their Responses In Oyo State Nigeria**

OLUWASOLA Hammed, Temitayo Adepoju, Adeola OLAJIDE: Department of Agricultural Economics, University of Ibadan, Ibadan Oyo State, Nigeria

14:30-14:50 **Agricultural extension and rural advisory services: Proactiveness or reactiveness on climate change for food security in Africa**

OLADELE Idowu O: Department of Agricultural Economics and Extension, North West University, Mafikeng Campus, South Africa

14:50-15:00 **General Discussion & Conclusion**

15:00-15:30 SNACK / TEA / COFFEE BREAK

LATE AFTERNOON PRESENTATIONS [15:30 – 17:00]

SESSION 05: Climate change, water and sanitation and health in developing countries [Part 2]

MODERATOR: **Mawuli Dzodzomenyo**, School of Public Health, University of Ghana, Legon

VENUE: Auditorium

TIME: 15:30 – 17:00

15:30-15:50 **Adaptation Strategies Of Climate Change To The Changing Incidence Of Cerebro Spinal Meningitis In Northern Ghana**

ADAMS NABIE Vivian, Samuel Codjoe: Regional Institute for Population Studies, University of Ghana, Legon, Ghana

15:50-16:10 **Urbanization and Flood Risks: Implication for Coping in Coastal Zones of Nigeria**

OGO PHILIP Agnes: Department of Social Studies, School of Arts and Social



Sciences, FCT College of Education, Zuba-Abuja, Nigeria

16:10-16:30 **Simple pond parameterisation for malaria transmission model**
ASARE EO¹, L. K. Amekudzi¹, A. M. Tompkins² and V. Ermert³ : ¹Kwame Nkrumah University of Science and Technology, Kumasi. Ghana, ²The Abdus Salam International Centre for Theoretical Physics (ICTP), Italy; ³Institute of Geophysics and Meteorology, University of Cologne, Germany.

16:30-16:50 **Addressing the health impacts of climate change on vulnerable populations in Ghana**
AGYEMANG Seth, Tagoe-Darko Eva: Kwame Nkrumah University of Science and Technology, Ghana.

16:50-17:00 **General Discussion & Conclusion**

SESSION 06: Policy experiences with climate change
MODERATOR: Oluwafunmiso Adeola Olajide, University of Ibadan, Nigeria
VENUE: Seminar Room
TIME: 15:30 – 17:00

15:30-15:50 **Assessing Climate Change Awareness Level Of Public Office Holders For Appropriate Ecopolicy Formulation In Nigeria**
AGBOR Uno I: Department Of Public Administration, University Of Calabar, Calabar-Nigeria

15:50-16:10 **Critical Evaluation of the National Adaptation Programme of Action (NAPA) of Liberia**
AGYEI Kwame: Alliance Francaise, Accra, Ghana

16:10-16:30 **Population, Reproductive Health and International Adaptation Finance: Opportunities for Africa**
MUTUNGA Clive: Population Action International, Washington DC. USA

16:30-16:50 **Climate Change and Variability: Opportunities and Adaptation in Masvingo Province, Zimbabwe**
MURWENDO Talent, David Chikodzi, Malvern Simba: Dept. of Geography and Environmental Science, Great Zimbabwe University, Masvingo, Zimbabwe

16:50-17:00 **General Discussion & Conclusion**



WEDNESDAY 5TH JUNE 2013
FIELD TRIP DAY



FIELDTRIP DAY

DEPART 08:00 AM PROMPT (SEE BELOW)

**MEETING / DEPARTURE POINT: FRONT OF LEGON
POLICE STATION [OPPOSITE THE OLD UNIVERSITY
ENTRANCE OR THE NEW INTERCHANGE ON THE MAIN
TETTEH QUARSHIE - MADINA ROAD**



DAY 4 SCIENTIFIC TIME TABLE AT A GLANCE

08:00-09:00

REGISTRATION

09:00-10:30

PLENARY 5: Dr. Abdulai Salifu
Council for Scientific and Industrial Research, Ghana

10:30-11:00

BREAK 1

11:00-12:30

PARALLEL SESSION 07: Climate change and vulnerability
PARALLEL SESSION 08: Agriculture, fisheries and food security in the context of climate change [Part 2]

12:30-13:30

LUNCH

13:30-15:00

PARALLEL SESSIONS 09 & 10: Climate & Development Knowledge Network (CDKN) Climate Change Policy Mainstreaming in Africa - A Panel Discussion

15:00-15:30

BREAK 2

15:30-17:00

PARALLEL SESSION 11: Population and Human Development - The Policy Environment
PARALLEL SESSION 12: Population and Human Development - Urbanisation and Population Growth

18:30

CONFERENCE DINNER & POPULATION AWARDS NIGHT



THURSDAY 6TH JUNE 2013



PLENARY 05 [RIPS 40TH ANNIVERSARY POPULATION DAY LECTURE]

Speaker : Dr. Abdulai Salifu

Council for Scientific and Industrial Research, Ghana

Chair : Dr. Shehnaaz Moosa, Climate and Development Knowledge Network, South Africa

Venue : Auditorium

Time: 09:00 – 10:30 Hrs

10:30-11:00: **BREAK 1**

PARALLEL SESSIONS 07 – 12 PRESENTATIONS

LATE MORNING PRESENTATIONS [11:00 – 12:30 Hrs]

SESSION 07: Agriculture, fisheries and food security in the context of climate change [Part 2]

MODERATOR: Moses Kwadzo, Department of Agric Economics & Extension, University of Cape Coast, Ghana

VENUE: Auditorium

TIME: 11:00 – 12:30

11:00-11:20 **Rural Farmers Perception on Climate Change: Lesson from Okpokwu Local Government Area of Benue State Nigeria**

AGBO Maria: Department of Geography, School of Arts and Social Sciences, FCT College of Education, Zuba Abuja, Nigeria

11:20-11:40 **Intensification of Cocoa Agroforestry Systems as a REDD+ Strategy in Cameroon: Hurdles, Motivations, and Challenges**

ALEMAGI Dieudonne¹, Duguma Lalisa², Minang Peter², Feudjio Mireille¹, Tchoundjeu Zac¹: ¹World Agroforestry Centre Regional Office for Central and West Africa, Yaoundé, Cameroon, ²World Agroforestry Centre, Nairobi, Kenya

11:40-12:00 **The White Volta Basin, Climate Change and Food Security: Perspectives of Riparian Communities in Northern Ghana**

MOHAMMED Asaah S: Department Of Community Development, University For Development Studies, WA, Ghana

12:00-12:20 **Climate Change Impacts on Smallholder Farmers in the White Volta Basin of Ghana**

AMIKUZUNO Joseph: Department of Agricultural and Resource Economics, University for Development Studies, Nyankpala Campus, Tamale, Ghana

12:20-12:30 **General Discussion & Conclusion**

SESSION 08: Climate change and vulnerability

MODERATOR: Ovuyovwiroye P.A. Odjugo, University of Benin, Nigeria



THURSDAY 6TH JUNE 2013



12

VENUE: Seminar Room
TIME: 11:00-12:30

- 11:00-11:20 **Changes in trend and variability of precipitation over Ghana: Assessing performance of reanalysis products**
AMEKUDZI LK¹, R. Manzanar², K. Preko¹, EO Asare¹: ¹Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; ²Institute of Physics of Cantabria, CSIC-University of Cantabria, Spain.
- 11:20-11:40 **Population increase, physical expansion and climate change in Benin City, Nigeria**
ODJUGO Ovuyovwiroye PA, AB Osirike: Department of Geography and Regional Planning, University of Benin, Benin City, Edo State, Nigeria
- 11:40-12:00 **The impact of Sea surface temperature on fishing: implications for fishing households in Accra Ghana**
DOEGAH Phidelia T, Samuel Codjoe, Stephen Kwankye: Regional Institute for Population Studies, University of Ghana, Legon, Ghana
- 12:20-12:30 **General Discussion & Conclusion**
- 12:00-13:30 LUNCH BREAK**

EARLY AFTERNOON PRESENTATIONS [13:30 – 15:00 Hrs]

- SESSION 09 Climate & Development Knowledge Network (CDKN) Climate Change & Policy Mainstreaming in Africa - A Panel Discussion**
SESSION 10
- MODERATOR:** Winfred Nelson, National Development Planning Commission, Ghana
VENUE: Auditorium
TIME: 13:30 – 15:00
- Contributing Speakers:** **Daniel Benefor**, Environmental Protection Agency, Ghana
David Alhassan, Agricultural Development bank, Ghana
Joseph Ntsiful, Africa Adaptation Programme, Visiting Scientist, Regional Institute for Population Studies, University of Ghana, Legon, Ghana
Elaine Tweneboah-Lawson, Institute of Environment and Sanitation Studies, University of Ghana, Legon, Ghana
Samuel Dotse, HATOF Foundation, Ghana

15:00-15:30 **BREAK 2**

LATE AFTERNOON PRESENTATIONS [15:30 – 17:00 Hrs]

- SESSION 11: Population and Human Development – The Policy Environment**
MODERATOR: Ama Aikins, Regional Institute for Population Studies, University of Ghana
VENUE: Auditorium
TIME: 15:30 – 16:40
- 15:30-15:50 **Pregnant Women's Adherence to Malaria Treatment during Climate**



THURSDAY 6TH JUNE 2013



Change in Ondo State, Nigeria.

ONABANJO Oluwasegun D, Ezeunwa Nwokocha E: Department of Sociology, Olabisi Onabanjo University, Ago-Iwoye, Nigeria

15:50-16:10 **Women and Environmental Change: the case of rural women in Nigeria**
OGUNLEYE-ADETONA Comfort I, Department of Geography and Environmental Management, University of Ilorin Kwara State, Nigeria.

16:10-16:30 **Ghana's population policy implementation: past, present and future**
KWANKYE Stephen O¹, Cofie Esther²; ¹Regional Institute for Population Studies (RIPS), University of Ghana, Legon; ²National Population Council, Accra

16:30-16:40 **General Discussion & Conclusion**

SESSION 12: Population and Human Development – Urbanisation and Population Growth

MODERATOR: Francis Dodoo, Regional Institute for Population Studies, University of Ghana

VENUE: Seminar Room

TIME: 15:30 – 16:40

15:30-15:50 **Rural-urban Population nexus: Tracing human impacts on the environment along population dynamics.**
ADEKOYA AE, NS Sangotegbe, OK Olawuyi: Department of Agricultural Extension and Rural Development, University of Ibadan, NIGERIA.

15:50-16:10 **Effect Of Population Density On Rural Land Use In Abuja, Nigeria.**
AGBO Maria, Ogoh-Philip Agnes, Okojie Monday U: Department of Geography, School of Arts and Social Sciences, FCT College of Education, Zuba Abuja, Nigeria

16:10-16:30 **Men's involvement in maternal health care: implications for pregnancy outcomes in Ifako Ijaye Local Government Area of Lagos state Nigeria.**
ADEYEMI Gbemiga E, Bisi Abiona, Olagbemi Akinola A: Department of Sociology Lagos State University, Ojo Lagos Nigeria

16:30-16:40 **General Discussion & Conclusion**

**18:30 CONFERENCE DINNER & AWARDS NIGHT
GREAT HALL, UNIVERSITY OF GHANA**



FRIDAY 7TH JUNE 2013
POPULATION DAY & CONFERENCE CLOSING

DAY 5 SCIENTIFIC TIME TABLE AT A GLANCE

08:00-09:00

REGISTRATION

09:00-10:30

PLENARY 6 (RIPS 40TH ANNIVERSARY LECTURE): Prof. John Oucho
African Migration & Development Policy Centre, Nairobi, Kenya

10:30-11:00

BREAK 1

11:00-12:30

RIPS 40TH ANNIVERSARY ROUNDTABLE: Prof. S.K. Gaisie
Regional Institute for Population Studies, University of Ghana, Legon, Ghana

12:30-13:30

LUNCH

13:30-14:50

PARALLEL SESSION 13: Maternal and Child Mortality
PARALLEL SESSION 14: Population Health and Fertility

14:50-15:00

SHORT HEALTH BREAK

15:00-15:45

PUBLICATION LAUNCH
OFFICIAL CLOSING CEREMONY

15:45-16:30

CLOSING RECEPTION & DEPARTURE





FRIDAY 7TH JUNE 2013
POPULATION DAY & CONFERENCE CLOSING

PLENARY 04 [RIPS 40TH ANNIVERSARY POPULATION DAY LECTURE]

Speaker : **Prof. John Oucho**

African Migration & Development Policy Centre, Nairobi, Kenya

Chair : Prof. Francis NA Dodoo, Regional Institute for Population Studies, University of Ghana, Legon, Ghana

Venue : Auditorium

Time: 09:00 – 10:30 Hrs

10:30-11:00: **BREAK 1**

LATE MORNING PRESENTATION - ROUNDTABLE

ROUNDTABLE: **Mortality, With Emphasis on Maternal Mortality in Ghana**

ORGANISERS: **Regional Institute for Population Studies, University of Ghana, Legon with support of the UNFPA, Ghana**

CHAIRPERSON: **Francis NA Dodoo**, Regional Institute for Population Studies, University of Ghana, Legon, Ghana

VENUE: **Conference Auditorium**

TIME: **11:00 - 12:30**

SYNOPSIS: The roundtable dubbed "Mortality (with focus on Maternal Mortality) and National Development in Ghana", seeks to create more awareness about the issues on mortality in Ghana with special reference to maternal mortality. Achievements in socio-economic development should have contributed to a greater decline in mortality in Ghana than is being experienced. Maternal mortality and under-five mortality are still unacceptably high. The roundtable seeks to throw more light on the gaps in the health delivery system and associated factors such as generation and use of health statistics and population policy that need to be reviewed for optimum results to be achieved. The background to the discussion will cover the nation and international efforts Millennium Development Goal (MDG 5) directed at reducing mortality generally and maternal mortality in particular.

Main Speaker: **Topic: Mortality, With Emphasis on Maternal Mortality in Ghana**

GAISIE S.K.: Regional Institute for Population Studies, University of Ghana, Legon, Ghana

Contributing Speakers: **Population and Health Statistics in Ghana**

NYARKO Philomena: Regional Institute for Population Studies, University of Ghana, Legon, Ghana, and Ghana Statistical Service

Topic: Adolescent Childbearing Risk in Ghana

KWANKYE Stephen O.: Regional Institute for Population Studies, University of Ghana, Legon, Ghana, and National Population Council

12:00-12:30 **GENERAL DISCUSSION & CONCLUSION**



FRIDAY 7TH JUNE 2013
POPULATION DAY & CONFERENCE CLOSING

PARALLEL SESSIONS 13 – 14 PRESENTATIONS

15:00-15:30 SNACK / TEA / COFFEE BREAK

EARLY AFTERNOON PRESENTATIONS

SESSION 13: Maternal and Child Mortality

MODERATOR: Delali M. Badasu

VENUE: Auditorium

TIME: 13:30 – 14:50

13:30-13:50 **Motherhood and Social Capital: The Experience of Young Mothers in the City of Accra**

BADASU Delali M: regional Institute for Population Studies, University of Ghana, Legon, Ghana

13:50-14:10 **Gender Influences on Child Survival and health outcomes and in Lagos State, South – Western Nigeria**

Yusuff, Olabisi S: Lagos State University, Department of Sociology Ojo, Lagos, Nigeria

14:10-14:30 **Social Supports and Malaria Treatment Patterns among Pregnant Women in Ondo state, Nigeria**

ONABANJO Oluwasegun D, Ezebunwa NWOKOCHA E.: Department of Sociology, Olabisi Onabanjo University, Ago-Iwoye. Nigeria.

14:30-14:50 **General Discussion and Conclusion**

14:50-15:00 SHORT BREAK

SESSION 14: Population Health and Fertility

MODERATOR: Prof. John Anarfi

VENUE: Seminar Room

TIME: 13:30 – 14:50

13:30-13:50 **Does Decision-making Autonomy Give Ghanaian Mothers Better Health?**

DODOO Naa Dodua: Regional Institute for Population Studies, University of Ghana, Legon.

13:50-14:10 **Household food insecurity and exclusive breastfeeding: implications for child survival in Osogbo Osun State, Nigeria.**

ADEYEMI Gbemiga E¹, Adetoro Gbemisola², Olagbemi Akinola¹: ¹Department of Sociology Lagos State University, Lagos, ²Dept of Economics and Development Studies Covenant University, Ota. Nigeria

14:10-14:30 **Male reproductive health challenges, fertility desire and coping strategies among young couples**



FRIDAY 7TH JUNE 2013
POPULATION DAY & CONFERENCE CLOSING

AMOO Emmanuel O: Demography and Social Statistics, School of Social Sciences, Covenant University, Canaanland, Ota Ogun State, Nigeria

14:30-14:50 **Evaluating Age Based Data Using Demographic Techniques**
 ADEYEMO Samuel O: Maths/Statistics Dept Federal Poly Nekede, Nigeria

14:50-15:00 **SHORT BREAK**

OFFICIAL CLOSING CEREMONY EVENTS

Venue: AUDITORIUM

15:00-15:20	OPENING REMARKS & OPTIONAL SPEECHES
15:20-15:40	IWMI CLIMATE CHANGE STRATEGY LAUNCH
15:40-16:00	GUEST OF HONOUR ADDRESS
16:00-16:05	CLOSING REMARKS
16:05-16:10	VOTE OF THANKS
16:10-16:45	CLOSING RECEPTION



01	CLIMATE CHANGE, WATER AND SANITATION AND HEALTH IN DEVELOPING COUNTRIES [PART 1]
01	<p>Measuring Perceptions of Diarrhoeal Disease Risk in a Climate Sensitive Environment ABU Mumuni: Regional Institute for Population Studies, University of Ghana, Legon, Ghana</p> <p>Measurement of people's risk perceptions is very important in many disciplines and in recent climate change studies; there is however no compromise about the finest measure. This study examined three measures of household risk of diarrhoeal disease as a result of flooding by assessing their demographic, social, economic and environmental risk characteristics. The aim of the study was to explore the relevance of households risk perceptions of diarrhoeal disease as a result of flooding and how populations differ based on the relative importance placed on each of the three measures. Using cross-sectional data from two poor urban neighbourhoods in Accra, Ghana, a total of 401 households involved in the study were asked to rate the chance of a member suffering from diarrhoeal disease in the last twelve months on a 0-100% numerical scale, a verbal scale with five descriptive categories, and a comparative scale with five categories. Each risk perception measure was significantly associated with other measures ($r \geq 0.48$) and slightly correlated with a measure of diarrhoeal disease worry ($r \geq 0.47$), but less correlated with household members experiencing diarrhoeal disease within the first four weeks after the October 26th 2011 flooding in Accra ($r \geq 0.23$). The numeric scale had the strongest correlation with experience of diarrhoeal disease by household members ($r=0.48$). The numeric and comparative measures showed the highest sensitivity (0.95 and 0.98) and specificity (0.64 and 0.58) for identifying households at risk of diarrhoeal disease. These measures also helped in identifying households at low risk of diarrhoeal disease – numeric measure had highest specificity (0.56) while comparative measure had highest sensitivity (0.98). Households in rich and richest wealth quintile had numeric expression of risk while those in poor and poorest quintile had comparative expression. Policy targeting population in poor places should be segmented since expression of risk perceptions is not the same for all.</p>
01	<p>Climate Change and Health in Nigeria. ENGLAMA Esther: Department of Geography, FCT College of Education, Zuba Abuja, Nigeria</p> <p>This paper investigates the impact of climate change on human health in Nigeria. The paper relies on secondary data sourced from journals, government documents and private individuals. From these sources, the paper discovered that climate change poses a wide range of health risks to human health resulting from increase in temperature and amplified air pollution. An increase in temperature leads to high incidence of vector-borne diseases such as malaria, dysentery and cholera among others. Climate change also leads to rising sea levels, which contaminates coastal fresh water and makes low lying areas vulnerable to flooding. Flooding results in treatment incidences of malaria, cholera, typhoid to mention but a few. It also leads to the displacement of land and water and post-disaster mental health problem. Finally, the paper suggests that after flooding, affected settlements should be fumigated before the population return in order to reduce the incidences of cholera, malaria and dysentery among others. Further, to reduce the atmospheric pollution, alternative source of energy, to fuel wood, must be put in place by the government.</p>
01	Exploring The Influence Of Climate Variability On Schistosomiasis Prevalence



ORAL ABSTRACTS



	<p>In The Ga Districts Of Ghana LARBI Reuben T: Regional Institute for Population Studies, University of Ghana, Legon, Ghana</p> <p>Climate change is projected to have an impact in disease abundance and a geographic shift in the prevalence of many vector borne diseases like schistosomiasis and malaria. Schistosomiasis is one of 13 diseases the WHO has classified as Neglected Tropical Diseases which currently affects some 200 million people and puts 600 million people at risk globally. In Ghana, the prevalence of this infection still remains high and thus indicating that the disease is still a major problem in some parts of the country. Owing to lack of attention, little is currently known about the pattern of spread and the potential links to climate change. This study is aimed at examining climate variability and exploring the influence on schistosomiasis prevalence. The study also seeks to find out identified household characteristics that could increase the household vulnerability to the disease. The study employs a mixed method using both secondary and primary data sources. The secondary data include epidemiological and climatic data</p>
01	<p>Influence of the Intra-annual and inter-annual climate variability on prevalence of malaria in Calabar, Nigeria UTTAH Emmanuel C¹, Chinasa Uttah²: ¹Department of Biological Sciences, Cross River University of Technology, Calabar, ²Department of Geography and Environmental Science, University of Calabar, Calabar, Nigeria</p> <p>A retrospective study was carried out, aimed at examining the relationship between both the intra-annual and inter-annual climate variability and prevalence of malaria in Calabar, Nigeria. A ten-year hospital-based data, from public and private hospitals in Calabar, from 2001 through 2010, was used in the study, and the climate variables included monthly rainfall, relative humidity and temperature. The trend of monthly and annual malaria prevalence over ten years was assessed and compared with the trend in the three afore-mentioned meteorological data. The result showed that malaria prevalence was high (ranging from 45% to 55%) between April and September (which is the wet season), and low (ranging from 25% to 40%) between October and March (which is the dry season). Important cluster of persons regarding malaria cases during the period were pregnant women, followed by children under five years old. Of all meteorological parameters, rainfall, temperature and humidity were the most important environmental factors in the transmission of malaria. There was no significant difference in the monthly prevalence of malaria between those attending government hospitals and private hospitals ($p > 0.05$). It is concluded that climate variability is a major driver of inter-annual variability of malaria incidence in Calabar.</p>
02	GENDER POVERTY AND CLIMATE CHANGE MAINSTREAMING
02	<p>Teachers' Assessment Of Climate Change On Gender And Health In College Of Education Zuba, Abuja. OKOJIE Monday U: Department Of Social Studies FCT College Of Education Zubap. Abuja, Nigeria.</p> <p>This study was set out to assess the impact of climate change on gender and health in Federal Capital Territory (FCT) College of Education Zuba, Abuja, Nigeria. The researcher employed the survey research method. The population of the study comprised of 250 teachers (100 females and 150 males). The simple random sampling technique was used to select 50 staff. The respondents were 20 females and 30 males.</p>



	<p>A 15-item questionnaire was constructed and used in collecting the needed information from the respondents. Chi-square (X^2) of independence was used to test the following hypotheses at 0.05 level of significance: there was no significant difference between natural disaster and teachers' assessment of climate change on gender and health; there was no significant difference between meteorological hazards and teachers' assessment of climate change on gender and health. Some of the findings are:- natural disasters such as droughts, floods and storms kill women at a younger age; other climate-sensitive health impacts, such as under-nutrition and malaria, also show important gender difference; women are more at risk, in both relative and absolute terms, of dying in heat waves;. The researcher strongly recommended that incorporation of a gender analysis into disaster management can increase the effectiveness of measures to protect people from climate variability and change and underlying causes of vulnerability, such as poverty, lack of empowerment, and weaknesses in health care, education, social safety nets and gender equity should be addressed by the government.</p>
02	<p>Gender Occupational Adaptation Preferences to Extreme Climatic Events in Poor Urban Communities in Accra EWOODZIE Dorcas: Regional Institute for Population Studies, University of Ghana, Legon, Ghana</p> <p>Africa is expected to undergo significant climatic change. The region is projected to experience changes in incidence of drought, altered rainfall distribution patterns and increase in temperature. With predicted increase in rainfall, urban dwellers will be most affected. Burdened with the existence of dependence on the physical environment for livelihoods such as fishing exposes the majority of the population to extreme climatic events. Major occupations in urban communities are in the informal sector with large proportions of people trading in agricultural goods which are highly weather sensitive. Communities are not entirely helpless victims but have resources which form the basis for adaptation. Social differentiations and access to resources results in the different adaptations males and females use. The concept of gender here will include age as a component of social differentiation in the categorization of gender. This study assesses the preferred adaptation strategies of older males and females and youth in fishing and trading occupations. Results will be derived from rankings of preferred adaptation options. This assessment provides a means of narrowing the gaps that exist and help to support the development of pro-poor adaptation strategies in communities in urban areas.</p>
02	<p>Gender, Poverty And Climate Change In Nigeria. ZAKARIAH Tanimu T: Department Of Geography FCT College Of Education Zuba Abuja, Nigeria.</p> <p>This paper examines the chain of interactions between climate change, gender and poverty in Nigeria. The paper relies mainly on secondary data generated by individuals, government and non-governmental bodies. From these sources, the paper reveals that climate change results in higher temperature increase leading to heat stress for plants, increasing sterility and lowering of overall agricultural productivity. It is also discovered that climate change has increased the frequency of extreme weather events such as storms or record drought resulting in the dislocation of agricultural food shortages. This has adverse effects on both men and women but women are the hardest hit because they are the ones producing food and do not have control over land. Rising sea level, resulting from climate change contaminates coastal fresh water aquifers and makes most communities vulnerable to flooding as seen in Lokoja, Bauchi, among others.</p>



ORAL ABSTRACTS



	<p>Flooding increases the frequency of vector-borne diseases such as malaria, dysentery, typhoid, cholera etc. Women who clear the mess left behind after the floods are mostly affected because of their exposure to the dirt. It is also revealed that climate change affects economic growth and poverty rate because of its adverse impact on agriculture, the engine of growth and mainstay of the poor in the country, thereby impacting negatively on capital flows, private investment and development finance. Again, women's lower social status and lack of access to economic resources such as land, capital etc make them most hit by poverty. Finally, the paper suggests measures such as reduction in deforestation by the provision of alternative source of energy; environmental friendly industrial activities will help to reduce the rate of discharge of carbon dioxide into the atmosphere.</p>
02	<p>Linking gender and poverty to climate change: What can policy do? NYAMBI Gwendoline N: Department of Agricultural Economics and Extension, North West University Mafikeng Campus, Mmabatho, South Africa</p> <p>This paper examines the link between gender and poverty to climate change and proposes policy options to mitigate climate change and alleviate women poverty. Women key roles in agriculture and activities that affect the environment and climate change are examined. Institutional roles to bridge the gap in gender inequality and climate change are also examined. Climate change is likely to widen the gap between the world's poor and the rich if proper measures are not taken to mitigate its effect. There is consensus that women are more vulnerable to climate change. Women in the developing nations constitute the bottom poor with most living below \$2 per day. Women play active roles in agricultural activities, natural resources management, and contribute substantially to agricultural production. However, their role in agriculture has not been properly recognized. They do not have access to natural resources (land, water), and credit facilities. Most often than not, female roles are seen as supportive of their male counterparts especially because little impacts studies exist on gender roles, gender impact on agricultural production, and climate change mitigation. Policy considerations in agriculture edge out women in most instances. Given the fact that natural resources are public goods; decisions affecting the use and management of the public goods need to be more responsive to clients' needs and livelihoods. Women high poverty levels will exacerbate if their needs are not placed at the forefront of development efforts. It is for this reason that gender should be mainstreamed in climate change policies with women placed at the centre of sustainable development. Public, private and civil institutional collaboration is necessary to establish more gender responsive environmental programs to alleviate climate change and poverty. This paper concludes with examples of mainstreaming gender, poverty and climate issues as to policies.</p>
03	<p>INDIGENOUS KNOWLEDGE SYSTEMS AND CLIMATE CHANGE ADAPTATION</p>
03	<p>Sequential-Multiple Cropping Systems: An Indigenous Climate Change Adaptation Practice In Nigeria. ESSOKA Pauline A, Okon Asuquo E: Department of Geography and Environmental Science, University of Calabar, Nigeria</p> <p>Combating the vagaries of climate is one of the challenges faced by farmers in sub-saharan Africa. Rural communities play active role in food security by adopting multiple cropping systems to combat climate extremities. The study examined the sequence of cropping and the cultivars in some rural communities within Akpabuyo Local</p>



ORAL ABSTRACTS



22

	<p>Government Area of Nigeria. The study adopted a Participatory Research Appraisal (PRA) incorporating Abundance-Rare scale for determining multiple uses. Three micro-agricultural zones were identified based on land facets with priority for crop types. It was observed that 75% of the rural farmers adopted sequential cropping to boost food production with two crops basically cassava and okro in abundance and commonly found in the three micro levels of cropping. Non-Timber Forest Products (NTFPs) such as <i>Gnetium africanum</i> and <i>Lesianthera africana</i> were domesticated within the cropping system. Developing local capacities for crop production will evade the incidence of food shortages due to crop failure, ensuring all round food production throughout the year.</p>
03	<p>Get Them Involved: Integrating Global And Indigenous Knowledge Systems. KWADZO Moses: Department of Agric Economics & Extension, University of Cape Coast Sasakawa Centre, Cape Coast, Ghana</p> <p>Promoting indigenous people's participation in climate change issues is an important initiative towards adaptation and sustainable development in Africa and around the world. It is increasingly realized that the global knowledge system has dominated research, policies and programmes that address current climate change's challenges, mitigation and adaptation strategies. Indigenous people's diverse culture, livelihood, climate change challenges and sustainability may not be addressed by policies and programmes that are often shaped by international knowledge system. The local population in a given geographical area has accumulated local knowledge over generations of living in a particular environment that have enabled them reduce their vulnerability to climate change and variability. Nevertheless, this knowledge is seldom taken into consideration in designing and implementing adaptive policies and programmes. This paper passionately discusses the need for incorporating the Indigenous knowledge System into the mainstream dimensions. It includes discussion on climate change challenges facing the local people, challenges inherent in their environment, the role of the stakeholders and the methodology of participation. Indigenous people play major roles in preserving the ecosystem. This has resulted in the recent calls for the integration of indigenous knowledge systems into global knowledge system strategies. Until now, integrating local knowledge systems into climate change concerns is not a completely new idea. Recognizing the contributions of indigenous people to the sustainability of the ecosystem and the threats posed by climate change to the survival and livelihood of the indigenous people, the United Nations has enacted the right of the indigenous people. Indigenous people's participation in climate change issues is almost nonexistence. Incorporating indigenous knowledge can add value to the development of sustainable climate change strategies that are compactable to local needs. This can be achieved only and only when people participate in joint analysis, which leads action plans that strengthen existing ones.</p>
03	<p>Indigenous Land Management Activities for increased Soil Carbon Sequestration and climate change mitigation in Africa OLADELE Oladimeji ¹, Ademola Braimoh²: ¹Department of Agricultural Economics and Extension, North-West University, Mafikeng Campus, South Africa. ²Agricultural and Rural Development, The World Bank, Washington DC, USA</p> <p>This paper presents cases of methodologies of the use of agricultural extension and rural advisory services for mainstreaming climate changes issues for the enhancement of food security in different parts of Africa. This is predicated on the fact that majority of actors in the food security chain are in rural areas in Africa and the most prominent source of information is through agricultural extension services. Agricultural extension services is used to depict all the different activities that provide information and</p>



ORAL ABSTRACTS



	<p>advisory services that are needed and demanded by farmers and other actors in agrifood systems and rural development. In this paper, these includes technical knowledge and involves facilitation, brokering and coaching of different actors to improve market access, dealing with changing patterns of risk and protecting the environment. This takes place within complex systems involving old and new service providers and even information and communication technologies (phones and mobile phones, internet, radio and television). The 'extension systems' are generally not very systematic and reflect the diverse priorities and accountabilities of a wide range of public, private and civil society organizations that are providing advice and information. In fact, some of these providers would not even classify themselves as "extension" but rather as community developers, innovation brokers, natural resource planners among others, however, they are all linked by a primary focus on providing advice and information. The full paper explores the methodologies such as cyber extension, community radio, drama, stakeholder platforms among others and highlights the application of these methodologies in different western and southern African countries</p>
03	<p>Communicating climate change to rural Nigerians: why Indigenous African Communication Systems matter MERIBE nnaEmeka C: Department of Strategic Communications, La Trobe University, Melbourne, Australia</p> <p>If African countries are very vulnerable to the impacts of climate change because of their low adaptive capacity, then it is significant that climate change information is made meaningful to rural people who constitute the majority in the continent. This is important because the development of Africa in the future will depend on how well every segment of the continent adapts to the impacts of climate change. The Federal Government of Nigeria appreciates that the country is a climate change hot spot and is making efforts to enhance the people's understanding of the phenomenon and how to adapt to its impacts. But it appears that rural Nigerians are not being carried along in this direction as their understanding of the phenomenon seems very shallow, a situation, which no doubt, will affect the attainment of the Millennium Development Goals in the country. This paper analyses what is wrong with the current methods of climate change communication in rural Nigerian and explores the use of Indigenous African Communication Systems in communicating climate change to rural people. It argues that understanding the peculiarities of rural people and their ways of communication will be significant in making climate change information meaningful to them.</p>
04	<p>AGRICULTURE, FISHERIES AND FOOD SECURITY IN THE CONTEXT OF CLIMATE CHANGE [PART 1]</p>
04	<p>Preliminary study on the impact of climate change and socio-economy on some farming communities in northern Ghana. BADMOS Biola K^{1□2}, Grace B. Villamor^{2□3}: ¹Kwame Nkrumah University Of Science and Technology, Ghana; ²West African Science Service Centre on Climate Change and Adapted Land Use, WASCAL), centre for Development Research (ZEF), University of Bonn, Germany</p> <p>Northern regions of Ghana are exposed to the effect and impact of climate change / variability. The regions have witnessed the widest range of temperature variability, and rainfall pattern have become significantly unpredictable, while poverty incidence is on the high side. Thus, in the context of environmental change, this study explores the</p>



	<p>impact of climate change and socio-economy on some farming communities in Northern Ghana. A mixed research approach (quantitative and qualitative) was used to collect data from 200 farming households as regards the impacts of weather patterns, change in crop(s) cultivated, and adaptation challenges. Surveyed households confirmed that weather pattern has affected their crop and livestock production, and cultivation of some crops have changed (increased / decreased) in order to cope with the environmental change. Changes in the cultivation of certain crops were associated with weather related factors (e.g. rainfall delay, fluctuation and periodic heavy rainfall) and non-weather related factors (e.g. farm inputs). Accordingly, 97, 75, 76, 75, and 91% of the farming households claimed that finance, land, fertilizer, labour, and seed access respectively were adaptation constraints. Climate change has been interacting with socio-economic factors, and a holistic approach would be the best to address the local or regional change.</p>
04	<p>Climate Change, Food Security, Economic Survival And The Future Of Conflicts In Nigeria. ADEJOH Pius E: Department of Sociology Faculty of Social Sciences University of Lagos, Akoka, Nigeria</p> <p>Climate change is arguably one of the foremost challenges facing humanity today. Its effects are far reaching and vary from region to region. For most of Africa, it is feared that by 2020, yields from rain-fed agriculture could be reduced by up to 50 percent due to climate change and that agricultural production including access to food, may be severely compromised. Just last year, an unusual flooding linked to climate change ravaged parts of Nigeria and washed away massive farmlands, raising concerns about impending famine. Crop yields have also continued to fail due to changing climatic conditions, a situation that exacerbates the economic hardships faced by many of the country's nearly 60% population whose livelihoods derive directly from agriculture. This paper examines the implications of these unfolding events for food security, economic survival and conflicts in Nigeria. Drawing from the 2010 Millennium Development Goals' report which put the proportion of Nigerians living below the hunger threshold at 33% in 2009 and other extant literature, the paper argues that any further worsening of this already delicate situation as climate change is poised to do, may not augur well for the future of conflicts in the country. It argues further that climate change is a real "threat multiplier" because of the proportion of the country's population employed in agriculture that stand the risk of being dislocated and made susceptible to violence/conflicts. The study concludes that since climate change is a reality which cannot be wished away, the country must arise and treat the threat posed by it with all the seriousness it deserves, or risk a future that will be defined by intractable conflicts. Among other things, the country would need to diversify her economy away from agriculture and reform her institutions of governance to promote better management of scarce resources.</p>
04	<p>Crop Farmers' Understanding And Awareness Of Climate Change And Their Responses In Oyo State Nigeria OLUWASOLA Hammed, Temitayo Adepoju, Adeola Olajide: Department of Agricultural Economics, University of Ibadan, Ibadan Oyo State, Nigeria</p> <p>Climate change impacts directly on agricultural production since agricultural systems depend on it. Several adaptation strategies are being practiced by farmers but empirical information on the influence of such practices on crop output is required. This study examines the socio-economic characteristics of the farmers and the adaptation and mitigation techniques adopted to cope with climate change and the possible effects on crop output. The study area is Akinyele local government from which 99 farmers were</p>



ORAL ABSTRACTS



	<p>randomly selected from 16 villages. Data were collected through oral interviews with the aid of questionnaires. The analytical tools used are descriptive and inferential statistics as well as multiple regressions. The results show that the decrease in output was attributed to the changing conditions in the weather, the nature of the soil and soil conservation techniques. Their perceptions on climate change are related to the negative effects such as crop destruction (26 percent) while some of them (42 percent) see it as a 'supernatural' act. The common response (43 percent) to mitigate its effect is to change planting date of crops while another 16 percent had increased the use of chemicals on the farm. Other adaptation techniques include a decrease in the land area for crops such as maize and an increase of the area for cassava. The econometric analysis shows that some of the adaptation techniques are however having a negative impact on output. The research shows that farmers have varied understanding of climate change but there is need for correct education and support for proper adaptation techniques so their food supply will not be jeopardized.</p>
04	<p>Agricultural extension and rural advisory services: Proactiveness or reactiveness on climate change for food security in Africa OLADELE OI: Department of Agricultural Economics and Extension, North West University, Mafikeng Campus, South Africa</p> <p>This paper presents cases of methodologies of the use of agricultural extension and rural advisory services for mainstreaming climate changes issues for the enhancement of food security in different parts of Africa. This is predicated on the fact that majority of actors in the food security chain are in rural areas in Africa and the most prominent source of information is through agricultural extension services. Agricultural extension services is used to depict all the different activities that provide information and advisory services that are needed and demanded by farmers and other actors in agrifood systems and rural development. In this paper, this include technical knowledge and involves facilitation, brokering and coaching of different actors to improve market access, dealing with changing patterns of risk and protecting the environment. This takes place within complex systems involving old and new service providers and even information and communication technologies (phones and mobile phones, internet, radio and television). The "extension systems" are generally not very systematic and reflect the diverse priorities and accountabilities of a wide range of public, private and civil society organizations that are providing advice and information. In fact, some of these providers would not even classify themselves as "extension"• but rather as community developers, innovation brokers, natural resource planners among others. However, they are all linked by a primary focus on providing advice and information. The full paper explores the methodologies and highlights the application of these methodologies in different parts of the world.</p>
05	<p>CLIMATE CHANGE, WATER AND SANITATION AND HEALTH IN DEVELOPING COUNTRIES [PART 2]</p>
05	<p>Urbanization and Flood Risks: Implication for Coping in Coastal Zones of Nigeria OGOH Philip Agnes: Department of Social Studies, School of Arts and Social Sciences, FCT College of Education, Zuba-Abuja, Nigeria</p> <p>This paper looks at rapid urbanization and the flood risk it portends with a view to identifying mechanisms for coping in coastal zones of Nigeria. Flooding is one of the various ecological problems that have taken its toll on the quality of the environment,</p>



ORAL ABSTRACTS



	<p>human health and economic growth in parts of Africa and in particular the coastal zones of Nigeria. History is replete of the wrought and calamities floods have inflicted on humans, destroying settlements, property and untold sufferings. Rapid urbanization has been seen to result in changes in land use patterns which can adversely affect the hydrological processes in a catchment leading to a deteriorating water environment. Increase in impecunious areas disrupts the natural water balance; and reduced infiltration increases runoff and leads to higher flood peaks and volumes even for short duration low intensity rainfall. Structural approach via Act of Legislatures on flood risks and flood related issues, land use planning and management, zoning of areas where land uses are prohibited or restricted, among others; and non-structural approach by building flood proof measures such as dams, flood control reservoirs, diversion and channelization of food waters; as well as flood early warning systems are identified and discussed in this paper as flood risks coping mechanisms. The policy implications of these is that government through its relevant agencies must be up to its game by monitoring precursors, forecasting of probable floods and notification of alerts. It also implies that an active involvement of communities at risks is required and public education and awareness of risks is facilitated through effective dissemination, as well as ensuring that there is a constant preparedness</p>
05	<p>Adaptation Strategies Of Climate Change To The Changing Incidence Of Cerebro Spinal Meningitis In Northern Ghana ADAMS NABIE Vivian, Samuel Codjoe: Regional Institute for Population Studies, University of Ghana, Legon, Ghana</p> <p>Despite improvements in treatments and understanding of how Cerebro-Spinal Meningitis (CSM) develops, the disease remains a potentially life-threatening causing significant morbidity and mortality. Climatic factors that influence the incidence of CSM include temperature, decreasing rainfall patterns and increase droughts. The aim of this study is to explore and document community-based adaptation strategies that have contributed to reducing the high levels and spread of epidemic cycles of climate-induced Cerebro Spinal Meningitis (CSM) in northern Ghana. Subsequently, the study will provide lessons built on traditional knowledge with innovative strategies which will help improve the capacity of local communities, households and people living within the meningitis belt in Ghana to adapt to the changing dynamics of the climate as well as the incidence of CSM. A mixed methodological approach is employed to this study. Data on incidence of CSM from the ministry of health and climate data from the meteorological agency to review the incidence of the phenomena in Ghana. Primary data collected focus group discussions in two selected communities. Perceptions on the causes of climate-induced CSM and perceived effects in the localities. Preliminary results indicate that CSM is more prevalent in the Northern regions of Ghana where climate change impacts are more rigorous. A correlation analysis run between CSM cases and temperature in the Upper East Region showed a strong correlation. A rise in temperature is related to increase in the incidence of CSM. However with time, increase in temperature showed a fall in the cases of CSM. This is attributed to interventions such as mass Vaccination against the disease as well as adaptation strategies helped to reduce the impact of the incidence of CSM in northern Ghana.</p>
05	<p>Simple pond parameterisation for malaria transmission model ASARE EO¹, L. K. Amekudzi¹, A. M. Tompkins² and V. Ermert³ : ¹Kwame Nkrumah University of Science and Technology, Kumasi. Ghana, ²The Abdus Salam International Centre for Theoretical Physics (ICTP), Italy; ³Institute of Geophysics and Meteorology, University of Cologne, Germany.</p>



ORAL ABSTRACTS



	<p>Dynamical mathematical-biological malaria models lack precise simulation of surface water as some models ignore surface hydrology completely due to small spatial scale of key vector breeding sites. Results from ongoing daily ponds measurements of potential mosquitoes breeding sites in some parts of Kumasi, Ghana, are presented along with attempts to simulate daily pond water area and depth using simplified area-depth (A-h) relation. The ponds revealed a strong variability in terms of its water persistence time ranging between 3 and 81 days with average depth and area varied between 5.9 and 14.5 cm and 1.4 and 9.1 m² respectively. The stability of the ponds was strongly influenced by its location as those found close to permanent stream and waterlogged areas were more stable. Precipitation also controls stability of these ponds as almost half dried in August when less rainfall was observed. The area-depth (A-h) model that requires only two measurements of pond water depth and surface area was able to simulate daily pond water surface area and therefore provides a simplest way of incorporate surface hydrology in dynamical disease models. Also these small-sized breeding habitats stability far exceeds aquatic stage development time of mosquitoes and therefore their contribution to vector abundance should not be ignored.</p>
05	<p>Addressing the health impacts of climate change on vulnerable populations in Ghana AGYEMANG Seth, Tagoe-Darko Eva: Kwame Nkrumah University of Science and Technology, Ghana.</p> <p>This paper discusses the links between climate change and human health in Ghana, with emphasis on the health of women, children, and poor coastal dwellers. Using basically literature sources and global reports, the paper finds evidence of an association between unusual weather phenomena and reports of diarrhoea, malaria, and malnutrition. Indeed, these conditions seem to occur at a higher level wherever there are extremes of weather such as high temperatures, floods, rising sea levels, and drought, among others. This finding draws important perspectives and implications for the Ghanaian experience of climate change. Drawing attention to the disproportionate effects of climate change on populations, the paper finds that the impacts are felt by women more than men, by children more than adults, and by poor coastal dwellers more than inland dwellers and the non-poor. This situation, exacerbated by geographical and socio-cultural factors, could overwhelm the country's health sector and impair efforts to achieve the health-related targets of the Millennium Development Goals. Consequently, the paper calls for the institution of weather early warning systems, resourcing of the public health system to deal with epidemics, as well as poverty-targeted, social protection and gender mainstreaming measures as ways of responding to the health threats of climate change.</p>
06	<p>POLICY EXPERIENCES WITH CLIMATE CHANGE</p>
06	<p>Assessing Climate Change Awareness Level Of Public Office Holders For Appropriate Ecopolicy Formulation In Nigeria. AGBOR Uno I: Department Of Public Administration, University Of Calabar, Calabar-Nigeria</p> <p>In 2012, Nigeria witnessed the worst flooding ever having swept over twelve states including locales in the dry northern region. The devastation paints a picture of a disaster that took the people by surprise. The affected communities including their governments seemed not to have envisaged this flooding that came with massive destruction of residential buildings, farmlands and human and animal lives. The</p>



	<p>expression of shock by the government as regards the sudden flooding leaves one with the proposition that government officials possess limited understanding of the impact of certain human activities on climate change. The objective of this study therefore, is to assess the climate change awareness level of public office holders in Nigeria with particular reference to Cross River State. The study assumes that there is an inextricable link between the level of awareness by public officers and eco-policy formulation to address climate change. It also assumes that climate change level among public office holders is measurable and necessary if appropriate eco-policies on climate change are to be made and sustained. Data were collected through questionnaire expressed in two forms of tests namely the Climate Change Awareness Test (CCAT) and the Social Problem Awareness Test (SPAT). Data collected were analysed through frequency counts and chi square statistical convention. 260 public office holders split into 130 each for political office holders (politicians) and career civil servants constituted the respondents for the study. Preliminary results suggest that there is variation in awareness level among the two categories of public office holders with career civil servants seeming to be more aware than the political office holders. The study therefore, suggests a rigorous sensitization of political office holders on the veracity of climate change and the need to tackle it through robust state policies.</p>
06	<p>Critical Evaluation of the National Adaptation Programme of Action (NAPA) of Liberia AGYEI Kwame: Alliance Francaise, Accra, Ghana</p> <p>NAPAs provide a means by which Least Developed Countries (LDCs) prioritize and present activities that respond to their urgent and immediate needs for climate change adaptation. This paper evaluated the NAPA of Liberia with a focus on the three highest prioritized adaptation projects outlined in the document. Three criteria were utilized for the evaluation, they are: the degree to which the prioritized adaptation activities addressed key vulnerabilities; the use of ecosystem based approaches; and sustainability. The prioritized activities outlined in the NAPA of Liberia were diversification of agriculture, rebuilding of the national hydro-meteorological monitoring system and reduction of the vulnerability of the coastal urban areas. The paper indicated that the prioritized adaptation activity of rebuilding Liberia's hydro-meteorological monitoring system will be helpful in planning future adaptation responses by ensuring that accurate data on climate variability is available. The paper suggested that although reducing the vulnerability of the coastal urban areas addressed a key vulnerability in Liberia, there was a need for inclusion of ecosystem based approaches such as mangrove forestation and conservation to attain this objective. Also, diversification of agriculture will only serve a partial role and needs to be complemented with reforestation activities to address long term impacts of climate change in the agriculture sector. The paper also argued that the NAPA of Liberia should have incorporated specific strategies to address the peculiar vulnerabilities of women and also outline the mechanism by which the adaptation activities of Liberia will be mainstreamed in the development plans of the country.</p>
06	<p>Population, Reproductive Health and International Adaptation Finance: Opportunities for Africa MUTUNGA Clive: Population Action International, Washington DC. USA</p> <p>A growing body of evidence demonstrates the importance of population dynamics and women's abilities to adapt to climate change. Access to reproductive health and voluntary family planning is an important part of strengthening women's capacity in adaptation. Yet, in too many places around the world, access to these services is</p>



ORAL ABSTRACTS



limited. Reducing unintended pregnancies and supporting women and families with tools to determine family size can improve socio-economic status of women, reduce strain on the environment, and improve natural resource conservation, all of which make significant contributions to resilience in the face of climate change. Africa's population is growing more rapidly than other regions of the world. Rapid population growth and climate change are speeding up the region's environmental degradation. African policymakers also recognize the connection between climate change adaptation and population dynamics within their climate adaptation planning processes. For example, a majority of National Adaptation Programmes of Action (NAPAs), which are developed by countries to seek financing to fund projects to help them adapt to climate change, have identified rapid population growth as a factor that undermines and exacerbates countries' ability to cope with the effects of climate change, and some have proposed projects that invest in family planning and reproductive health (FP/RH). However, none of the projects submitted for funding under the key adaptation finance mechanisms include FP/RH. A majority of the projects funded fall under food security and water resources, with social sectors like gender being less prominent. Gender and FP/RH may not be the main priority in climate change adaptation over food security, water resources, and disaster preparedness, but they should be part of long term social sector strategy for adaptation. Hence climate finance should be supportive of social sector and gender adaptation strategies such as FP/RH. As adaptation planning moves towards implementation and projects are submitted for funding, it is important to explore the planning and financing landscape to examine how amenable it is for social sector and gender programming including FP/RH. This paper will provide an overview of the key international and regional climate adaptation finance mechanisms and investigate how they are suited to address social sector and gender issue in general, and population and FP/RH projects specifically. It will identify key barriers in terms of the financing landscape and climate planning process and provide recommendations to better incorporate social sector, gender, and FP/RH in adaptation financing. Finally, the paper will identify opportunities to implement the recommendations aimed at ensuring gender and FP/RH in climate financing for Africa.

06

Climate Change and Variability: Opportunities and Adaptation in Masvingo Province, Zimbabwe

MURWENDO Talent, David Chikodzi, Malvern Simba: Dept. of Geography and Environmental Science, Great Zimbabwe University, Masvingo, Zimbabwe

Research has been done on the negative impacts and challenges caused by extreme weather conditions due to climate variability and change and little have focused on the positive impacts and the opportunities available. The study seeks to explore possible climate opportunities and how these can improve farmers' adaptive capacity in Masvingo Province. Specifically the study provides the climate change scenarios for Masvingo province, analyses the advantages and opportunities offered by climate change to local farmers and adaptations by the population to the related opportunities offered by climate change. Climate data for the five stations in the province were obtained from the Zimbabwe's Meteorological Services Department (ZMSD) and analysed to give a picture of the rainfall and temperature trends in the province. In addition a field survey was carried out with a probing questionnaire which mainly enquired on the natural resources available to communal farmers. Key informants provided information on the underlying opportunities in light of extreme weather conditions. The rainfall analysis shows that rains have not changed in amounts but ambient temperatures have risen.



07

AGRICULTURE, FISHERIES AND FOOD SECURITY IN THE CONTEXT OF CLIMATE CHANGE [PART 2]

07

Rural Farmers Perception on Climate Change: Lesson from Okpokwu Local Government Area of Benue State Nigeria

AGBO Maria: Department of Geography, School of Arts and Social Sciences, FCT College of Education, Zuba Abuja, Nigeria

The study aimed at examining rural farmers' perception of the causes, effects and control measures of climate change in Okpokwu Local Government area of Benue state of Nigeria. To this end, rural farmers' perceptions of the causes, effects and control measures of climate change in Okpokwu local government area of Benue state were examined. Climate change has been defined as the derivation from the normal climatic condition of an area due to land, atmosphere, land ocean and ocean atmosphere interactions, which causes alterations in the balance of gases in the earth atmosphere. The paper is a cross-sectional study of sampled farmers in Okpokwu Local Government Area of Benue state, Nigeria. The study made use of a simple random technique to sample out 100 respondents, mostly rural farmers in ten villages. Simple percentages were used in analysing data collected with the use of research questionnaire titled RUFAPOCLEQ. Result showed that majority (100%) of the respondents believes that bush burning, deforestation and wood logging are major causes of climate change. This results in low yield of major crops, economic disempowerment and desert encroachment amongst others. The chi-square statistics reveal a strong statistical significant relationship between awareness on climate change and sex, age, marital status and level of education ($p=0.005$). It is recommended that enlightenment programmes on climate change in local language should be given to rural farmers, while government at all levels should initiate policies that discourage deforestations. This study is a good reference point to academia, researcher, Government agents and practicing farmer on causes, effect and solution to climate change and other related issues.

07

Intensification of Cocoa Agroforestry Systems as a REDD+ Strategy in Cameroon: Hurdles, Motivations, and Challenges

ALEMAGI Dieudonne¹, Duguma Lalisa², Minang Peter², Feudjio Mireille¹, Tchoundjeu Zac¹: ¹World Agroforestry Centre Regional Office for Central and West Africa, Yaoundé, Cameroon, ²World Agroforestry Centre, Nairobi, Kenya

Tree planting and the use of inputs within cocoa agroforestry systems are potential intensification pathways to enhance the contribution of these systems to the REDD+ mechanism. However, there is scanty knowledge about the hurdles, motivations, and challenges associated with intensification pathways within these systems. A survey questionnaire addressing these hurdles, challenges and motivations was administered to 461 cocoa farmers randomly selected from ten forest-dependent communities in the South Region of Cameroon. The results show that 85% of the farmers planted trees in their cocoa farms while only 64% have used inputs in the land use. Lack of technical support and lack of awareness were identified as the major obstacles to tree planting and the use of inputs within the cocoa farms respectively. The least motivation factor behind tree planting and the use of inputs was inadequate technical assistance. Limited access to credit facilities was identified as the most important challenge to tree planting and the use of inputs. The study has implications for REDD+ as a climate change mitigation strategy in that tree planting and the use of inputs within these systems increases agricultural productivity and enable farmers to stay on the same land. This



ORAL ABSTRACTS



	<p>results in less forest land being cleared for agriculture, thus sparing more forested land and allowing recovering of degraded forests. We conclude by prescribing incentives (like improved extension services from the government, subsidies for inputs, and adequate access to credit facilities) for promoting intensification pathways in these systems as a contribution to REDD+.</p>
07	<p>The White Volta Basin, Climate Change and Food Security: Perspectives of Riparian Communities in Northern Ghana MOHAMMED Asaah S: Department Of Community Development, University For Development Studies, WA, Ghana</p> <p>Climate change and its associated effects such as poor rainfall and extreme droughts continuously pose threats to agriculture livelihoods, hence food security in Northern Ghana. This paper has examined how the resources of the White Volta River are enhancing food availability for riparian communities in the Bawku Area of the Upper East Region of Ghana. Using different participatory methods such as focus group discussions and interviews, data was collected from households and individuals in three riparian communities. The result of the study indicates that, all things been equal, cultivation of food crops near the river in the rainy season gives significantly high yields as compared to yields from other locations in the communities. Farmers cultivate food crops such as maize and rice which were hitherto reserved for rainy seasons. Fishing and river transportation has become annual events along the river. Commercialization of livestock rearing has become a major livelihood activity in the communities. The study concludes that the sustenance of the River is very crucial for the development of the riparian communities. Integrated river resources planning and management with much participation of the local communities, Government and Civil Society Organisations is therefore recommended for efficient utilisation and management of the River resources in the riparian communities.</p>
07	<p>Climate Change Impacts on Smallholder Farmers in the White Volta Basin of Ghana AMIKUZUNO Joseph: Department of Agricultural and Resource Economics, University for Development Studies, Nyankpala Campus, Tamale, Ghana</p> <p>Climate change and agriculture affect each other. Climate change affects the agroecological and growing conditions of crops and livestock. Conversely, agriculture is a major contributor to climate change via the emission of greenhouse gases and role in carbon sequestration. In Sub-Sahara Africa (SSA), climate change via its ensuing impact on precipitation patterns and temperature is the major cause of crop failure, low yields and food insecurity. Even though low yields of smallholder farmers in SSA are most commonly attributed to small farm sizes; low use of fertilizer, improved seeds, pesticides etc. as well as to land degradation and tenure insecurity, the major causes of low agriculture output – drought, floods, land degradation, pest and weed infestation in SSA – are climate-related. What however, is the empirical evidence of the socioeconomic impact of climate change on the livelihood and adaptation strategies of SSA's smallholder farmers? In this paper, we use the trade-offs analysis minimum data (TOA-MD) model to test climate change impacts and adaptation strategies with socioeconomic, survey data collected from 300 farms in the upper White Volta Basin of Ghana. Combining simulated and expected crop and livestock yields under three different climate scenarios, the economic impact of climate change to 2050 is analysed. We find that livelihood outcome variables like income and poverty levels as well as adoption rates are sensitive to the different climate scenarios. Most particularly, introducing an intensive and expanded irrigation technology as a climate change</p>



	adaptation strategy offsets some negative impacts and improves income but not poverty rates in the area. The results are useful in providing spatiotemporally-specific policy recommendations on the potential impacts of climate change and the economic outcomes associated with different adaptation strategies
08	CLIMATE CHANGE AND VULNERABILITY
08	<p>Changes in trend and variability of precipitation over Ghana: Assessing performance of reanalysis products AMEKUDZI LK¹, R. Manzanas², K. Preko¹, EO Asare¹ ; ¹Kwame Nkrumah University of Science and Technology, Kumasi. Ghana; ²Institute of Physics of Cantabria, CSIC-University of Cantabria, Spain.</p> <p>Fourteen synoptic stations data from Ghana are analyzed in the period 1960-2010. First, the performance of various interpolated products (reanalysis and gridded observational datasets) was assessed over the study area. For most of the stations the gridded datasets showed good agreement with synoptic data, with correlations in the range of 0.7-1.0 and reasonable biases. However, reanalysis performed poorly, with smaller correlations and larger biases. Trend analysis performed on the synoptic, gridded and reanalysis dataset showed evidence of changes in rainfall regimes between 1960-2000 and 1979-2010 periods were demonstrated for certain parts of the country. Generally, there is a decreasing trend in rainfall in the South of the country but insignificant trend in the North over the period 1960 – 2000. This finding has a impact on rain-fed agriculture and livelihood.</p>
08	<p>Population increase, physical expansion and climate change in Benin City, Nigeria ODJUGO Ovuyovwiroye PA, AB Osirike: Department of Geography and Regional Planning, University of Benin, Benin City, Edo State, Nigeria</p> <p>Rural urban migration has drastically led to increased physical expansion and population of cities in different parts of the world. Physical expansion and population growth vary with cities, it is expected that how the cities modify the climatic condition will also differ. This study therefore investigates the impact of population growth on physical expansion and microclimate of Benin City in Nigeria. Mean annual climatic data of Benin City (urban) and NIFOR (rural) between 1943 and 2012 were collected from the Nigerian Meteorological Agency, Lagos and NIFOR Research Centre, Ugbojobo, near Benin City. The climatic data for Benin City (Urban) and NIFOR (Rural) were compared so as to analyse how urbanization has impacted on the microclimate of the city. The urban heat Island was determined using fieldwork climatic data collected in 2012. The data were analysed using time series and the students' t-test among others. The results show that the city experienced rapid population growth which resulted in drastic physical expansion. The human and biophysical changes led to increasing temperature trend as exemplified by temperature increase of 1.8^oC in Benin City and 0.4^oC in NIFOR between 1943 and 2012. Temperature increase occasioned by urbanization was 1.4^oC. The City centre with temperature of 35.2^oC is more physiologically discomforting than the suburb with 27.8^oC. To reduce the City's heat load, it is recommended that new open spaces be created and the old ones be reclaimed and maintained. Urban forestry should be practiced by all, while the current practice of ceiling compound floors with concretes or inter-locking ties is discouraged.</p>
08	The impact of Sea surface temperature on fishing: implications for fishing



ORAL ABSTRACTS



households in Accra Ghana

DOEGAH Phidelia T, Samuel Codjoe, Stephen Kwankye: Regional Institute for Population Studies, University of Ghana, Legon, Ghana

African fisheries and fishing communities are among the most vulnerable in the world to climate change. Not only are most of these countries heavily reliant on fisheries as contribution to national economies, food security and employment but also climate change is predicted to be particularly significant in this region. Fish has been noted to serve as a cheap source of protein to many, especially the poor. Thus, any negative impact on fishing will affect the availability, quantity and quality of fish for food and majority of people will suffer. It could further lead to loss of income, among others. The aim of this study is to examine the association between sea surface temperature (SST) and fishing and the implications for fishing households in Accra. Daily temperature, fish catch and fishing effort data were obtained from the marine fisheries research division (MFRD) data files (2000-2010). A sample of fisher folks were involved in a survey (120) and in-depth interviews (10) using a purposive sampling technique. Percentages, correlation test, and thematic analysis were used to analyse the data. Analysis identified an association between SST and fish catch. Fisher folks and their households have their livelihood, food supply and income affected and thus engaged in several coping strategies to improve their livelihood, food supply and income. It is necessary to incorporate policies on the fishing sector into all national, regional and local programmes in order to lessen consequences on households concerning food (fish) supply and income.

11

POPULATION AND HUMAN DEVELOPMENT – THE POLICY ENVIRONMENT

11

Pregnant Women's Adherence to Malaria Treatment during Climate Change in Ondo State, Nigeria.

ONABANJO Oluwasegun D, Ezeibunwa Nwokocha E: Department of Sociology, Olabisi Onabanjo University, Ago-Iwoye, Nigeria

Malaria is a major risk to lives and development in Nigeria and other endemic regions. Pregnant women and children are at a greater risk of this vector borne disease. Several efforts have been put in place towards its prevention and treatment but prevalence rate is high. Studies on malaria-related maternal mortality in Nigeria have focused largely on preventive behaviours and healthcare providers' knowledge of treatment regimen. Not much attention has been paid to adherence of the care seekers to treatment in relevant contexts. Employing both qualitative and quantitative data collection techniques, 927 pregnant women in Ondo state Nigeria were selected through multistage sampling techniques. The study established that adherence to malaria treatment among pregnant women in the area was influenced by social, residential and demographic factors in both rural and urban areas of the state. Expectant mothers without formal education reported high adherence to medication ($r=-631$, $p<034$) than those of higher educational status, indicating that the level of education does not necessarily influence adherence to medication. Policy and national programmes aimed at reduction in maternal mortality should recognise the cultural milieu given its linkage with the aetiology of disease. Without a deliberate intervention, malaria induced maternal morbidity and mortality will remain high not only in Ondo State but in Nigeria as a whole.

11

Women and Environmental Change: the case of rural women in Nigeria

OGUNLEYE-ADETONA Comfort I, Department of Geography and Environmental



	<p>Management, University of Ilorin Kwara State, Nigeria.</p> <p>Due to increased population, man tends to overuse the environmental resources in an attempt to maintain and extend it, exhaust the resources to the point that the population's survival may be threatened. In other words, man's activities tend to damage and/or degrade the ecosystem in the form of global warming, soil erosion, air and water pollution and deforestation. All of which threatens human health, ecological and the eventual slowing down of nation's economic growth. The effect of human activities on the environment however, depends not only on the number of people, but also the demographic factors like age and sex. The way humans use and manage environmental resources not only differ but are also differentially affected by the degradation of natural resources. For instance, women residing in the rural areas interact a lot with the environment in the area of cultivation and food processing. The study carried out in some selected rural areas in Nigeria revealed that women are exposed to health hazards like pneumonia through indoor air pollution. They also contribute to forest degradation in their search for firewood and processing of food. The need to minimize the economic and health hazards associated with air and water pollution and deforestation and improve food production in Nigeria cannot be overemphasized.</p>
11	<p>Ghana's population policy implementation: past, present and future KWANKYE Stephen O¹, Cofie Esther²; ¹Regional Institute for Population Studies (RIPS), University of Ghana, Legon; ²National Population Council, Accra</p> <p>The effective implementation of population policies is critical in addressing development challenges particularly for developing countries. As one of the first countries in sub-Saharan Africa to adopt a comprehensive population policy, Ghana's experience at population policy implementation spans a period over four decades. There have been successes, failures and challenges as new issues, which hitherto were non-existent at the inception of the policy, emerge in the course of implementation. This paper assesses Ghana's efforts at implementing its national population policy, brings out deep insights on lessons learnt, and makes proposals for the way forward. The assessment shows that while some successes have been achieved in the area of fertility transition, increasing life expectancy at birth, etc., there are still critical challenges, which are socio-cultural and political in character. Institutional structures for coordinating the implementation are undermined by poor resource in-flow from the state resulting in loss of trained human resources for effective implementation. The functional integration of population variables into development planning at the district level is consequently virtually non-existent. It is, therefore, just not enough to have a population policy as a document if the state does not attach the highest level of importance to population dynamics as a development planning priority in the country. The state is called upon to review its attitude to population issues and to invest in institutions and structures established for the effective implementation of the country's national population-related policies as the surest way towards attaining a higher middle-income economic status that guarantees enhanced quality of life for the people.</p>
12	<p>POPULATION AND HUMAN DEVELOPMENT – URBANISATION AND POPULATION GROWTH</p>
12	<p>Rural-urban Population nexus: Tracing human impacts on the environment along population dynamics. ADEKOYA AE., NS Sangotegbe, OK Olawuyi: Department of Agricultural Extension and</p>



ORAL ABSTRACTS



	<p>Rural Development, University of Ibadan, NIGERIA.</p> <p>Over the years, urban centres have been blamed for negatively affecting the environment, without taking into account the various activities in both urban and rural areas, which help to objectively draw a conclusion on per capita GHG emission and overall impact on the environment. This paper fills this gap by looking into per capital GHG emission, as well as consequent environmental impacts by looking into rural and urban activities and how an individual through these activities impact on the environment. It goes further to link population dynamics between the rural and urban areas by considering the usual migration pattern as urban population swells as movement is directed from the rural area. To this end, per capita contribution to GHG through livelihood activities is considered in line with migration patterns. The paper concludes that per-capita GHG emission and environmental impacts increase along rural-urban population nexus.</p>
12	<p>Effect Of Population Density On Rural Land Use In Abuja, Nigeria.</p> <p>AGBO Maria, Ogoh-Philip Agnes, Okojie Monday U: Department of Geography, School of Arts and Social Sciences, FCT College of Education, Zuba Abuja, Nigeria</p> <p>Population constitutes a vital component of the resource base and land use of any area. The most relevant elements of the study in this regard are its size, spatial distribution and demographic structure. The rapid growth of population in the recent past has accelerated all facts of resource exploitation in the study area. This study investigated the effect of high population density on rural land use in Abuja. A total of 150 persons have been selected using purposive systematic sampling technique. The selection comprises five settlement from each Area Council. The result showed that the pressure on land came mostly from settlement with 45%, agriculture 26%, transportation 15%, grazing 10% and others 4%. The study recommends that the Federal Government should provide low cost houses for farmers in rural areas to reduce cost of farmland to people that want to be landlord; make lives in the rural areas attractive so that influx of people to Abuja and especially the study area would be reduced. There is also need for environmental education to our rural dwellers and improve on tree planting campaigns to rural dwellers.</p>
12	<p>Men's involvement in maternal health care: implications for pregnancy outcomes in Ifako Ijaye Local Government Area of Lagos state Nigeria.</p> <p>ADEYEMI Gbemiga E K, Bisi Abiona, Olagbemi Akinola A: Department of Sociology Lagos State University, Ojo Lagos Nigeria</p> <p>In patriarchal societies, women often lack the autonomy to make decisions regarding their own health, they are often unable to access pre-natal and natal health services. Men's decision and action during the pregnancy and delivery often make difference between illness and health, life and death. It is therefore imperative to examine the impact of men's involvement in maternal health care and its implications for pregnancy outcomes in Ifako Ijaye LGA of Lagos State, Nigeria. Quantitative and qualitative data were collected. A multi-stage random sampling procedure was employed in administration of 400 copies of questionnaires to women in reproductive age. The data collected were subjected to basic demographic analytical techniques. The study reveals that 55% of women interviewed reported that they have had complications during delivery. It was discovered that women assisted by men during ante-natal are less likely to have negative pregnancy outcomes. Some of the involvements of men to prevent negative outcomes include ensuring regular antenatal 32.9%, providing money and domestic support 10.3% and assisting in taking care of children 10.3%. The study</p>



	reveals that husbands' level of education, occupation, level of income, age, frequency of childbirth, and knowledge about maternal health issues are predisposing factors for the likelihood of having pregnancy complications. Despite several efforts that have been made in the area of health-care services to secure a lasting solution to the maternal and infant mortality ravaging the country, the research positioned that there is need for vigorous men involvement in the safe motherhood programme and reproductive health services in Nigeria.
13	MATERNAL AND CHILD MORTALITY
13	<p>Motherhood and Social Capital: The Experience of Young Mothers in the City of Accra BADASU Delali M: regional Institute for Population Studies, University of Ghana, Legon, Ghana</p> <p>The contribution of social capital to childbearing and child raising in African societies has been a subject of many researchers who investigate the wellbeing of mothers and children. Recent findings of several studies identify the dwindling support for mothers as migration and urbanization have brought about dispersal of kin, making it quite impossible for mothers to depend on their kin for child care and related tasks. The present study examined the availability of social capital for young mothers in Accra. The mothers are selected from low, middle and high income residential areas, the purpose of which is to find the variations among the socioeconomic subgroups. The findings show that the young mothers have access to various types of social capital. They further suggest that young mothers, compared to older mothers, need some types of social capital for some aspects of their maternal tasks but they face some challenges in having access to them. The policy implications are discussed.</p>
13	<p>Gender Influences on Child Survival and health outcomes in Lagos State, South – Western- Nigeria Yusuff, Olabisi S: Lagos State University, Department of Sociology Ojo, Lagos, Nigeria</p> <p>There is increasing recognition in the field of international health and nutrition that gender inequities and dynamics are a major social determinant of child's health and nutrition outcomes. The purpose of this study is to examine gender influences on household dynamics in aspects of the young child's (0- 5yrs) health and nutrition in a patriarchal society like Nigeria where women are dependent on male gender for survival. Three hundred (300) questionnaires were distributed to women in the household through a multi stage sampling techniques in selected three local governments in Lagos state. Three focus group discussions (FGDs) were held at the three local governments in the state . Quantitative data were analysed with descriptive statistics such as frequency counts, percentages and means to describe the findings. Information from Focus Group discussion was analysed with content analysis and ethnographic summary. The result shows that women's bargaining power is influential in two main areas. First, the results show that 35% of women respondents were able to influence decision making within the household on how resources are channelled to children both in terms of nutrition and health inputs. Secondly, 85% of women were able to access and control the use of resources for their own health and well being, which in turn impacted significantly on their children's survival and health outcomes. The paper concludes that women empowerment will greatly impact positively on child survival and health outcomes in Nigeria.</p>



ORAL ABSTRACTS



13	<p>Social Supports and Malaria Treatment Patterns among Pregnant Women in Ondo State, Nigeria ONABANJO Oluwasegun D, Ezebunwa NWOKOCHA E.: Department of Sociology , Olabisi Onabanjo University, Ago-Iwoye. Nigeria.</p> <p>Studies on malaria-related maternal morbidity and mortality in Nigeria have focused largely on preventive behaviours. They were motivated by concerns about the impact of poverty and lack of awareness on aggregate maternal mortality statistics. However, negligible attention has been paid to social supports received by care seekers during climate change where additional burden are experienced by individuals and society at large. This study was designed to investigate interrelationships between social supports received by patients and their choice of treatment for malaria in Ondo state classified among areas of high maternal mortality prevalence in Nigeria. Cross-sectional survey research design was employed using both quantitative and qualitative data collection techniques. A multistage sampling technique which involved random selection of 10 Local Government Areas, purposive selection of 233 facilities and random selection of 927 pregnant women seeking care for malaria was adopted. Qualitative data were elicited through sixteen Key Informant Interviews. Quantitative data were analysed using descriptive statistics, Chi-square, T- test and Ordinal Regression at 5% level of significance. The level of disposition was measured with a 5-point scale. Content analysis was used for the qualitative data. Mean age and income of respondents were 25.0 ± 5.1 years and NGN 4,364.70K ± 3.1 respectively. Qualitative data revealed that mothers-in-law contributed remarkably to counselling support and were major determinants of treatment options. Informal care providers remained essential part of maternal healthcare delivery.</p>
14	<p>POPULATION HEALTH AND FERTILITY</p>
14	<p>Does Decision-making Autonomy Give Ghanaian Mothers Better Health? DODOO Naa Dodua: Regional Institute for Population Studies, University of Ghana, Legon.</p> <p>Using data from the Ghana Demographic and Health Survey, 2003, this paper investigates the influence of Ghanaian mothers' decision-making autonomy on their health, measured via body mass index (BMI). In bivariate analyses, BMI is strongly associated with autonomy. Greater proportions of women with high decision-making autonomy are overweight or obese. Controlling for socioeconomic and demographic characteristics however, reveals that much of the association between autonomy and BMI is due to the socioeconomic status of women and not their autonomy per se. This implies that it is a woman's socioeconomic status that has an influence on her decision-making autonomy and through that, her health. Recommendations arising from these findings are first, that there should be a drive to increase awareness of the hazards of obesity and promote healthy body weights, and second, interventions to improve women's health should consider socioeconomic status as a key theme to be addressed.</p>
14	<p>Household food insecurity and exclusive breastfeeding: implications for child survival in Osogbo Osun State, Nigeria. ADEYEMI Gbemiga E¹, Adetoro Gbemisola², Olagbemi Akinola¹: ¹Department of Sociology Lagos State University, Lagos, ²Dept of Economics and Development Studies Covenant University, Ota. Nigeria</p> <p>Increase in the prices of food commodities in the last seven years has resulted to food</p>



	<p>crisis and food intake. Consequently, these effects impact the health and nutritional status of households especially among lactating mothers, infants, and pregnant women. The study therefore examines the impact of household food insecurity on the exclusive breast-feeding and its implications for child survival. The study was carried out in Osogbo, Osun State south-western Nigeria. A multi-stage random sampling procedure was employed in the administration of 230 questionnaires to lactating mothers. For qualitative data, four focus group discussions (FGD) were conducted to collect information from married women within the study population. The data collected were subjected to basic demographic analytical techniques. From the study it was revealed that less than 40% practise exclusive breastfeeding while majority of the respondents (65%) start introducing complementary feeding from four months. Reasons given for the complimentary feeding include inadequate milk in the breast, insufficient food for the mother and child's illness. Two thirds of the respondents explained that their children had illnesses in the last two weeks preceding the survey. There is a significant relationship between ever-experienced food shortage, exclusive breastfeeding and child illness. Level of income, education, number of children, place of delivery and meal skipping habits on the likelihood of practicing exclusive breastfeeding is established in the study. The study concludes that for Nigeria to achieve reduction in infant mortality, food production must be given adequate priority.</p>
14	<p>Male reproductive health challenges, fertility desire and coping strategies among young couples AMOO, Emmanuel Olagunju</p> <p>There is a dearth of information on strategies that wives employ in a marital relationship that involves husbands with sexual challenges neither are there popular interventions to enhance enduring conjugal relationships where such problems exist in Nigeria. This study examined the incidence of male sexual diseases, the influence of fertility desire and coping strategies among young couples in Nigeria. The data was extracted from a 2010 survey of 435 couples in the southwest Nigeria. Data were analyzed using univariate and logistic regression techniques. The common male sexual diseases identified include erectile dysfunction (10.5%), gonorrhoea (12.7%), low sperm count (0.1%), testicular cancer (6.3%), prostate (3.2%) and prostate cancer (1.6%). Where the husbands experience erectile dysfunction, prostate or gonorrhoea, the couples are 0.064, 0.898 and 0.583 times (respectively) less likely to enjoy marital satisfaction. The study concludes that marriage counsellors, social and health workers need to focus on erectile dysfunction, gonorrhoea and prostate as major determinants of sustainable marital satisfaction. It recommends public awareness on male sexual diseases and establishment of robust specialized reproductive healthcare services to cater for health needs of men who are experiencing sexual problems.</p>
14	<p>Evaluating Age Based Data Using Demographic Techniques ADEYEMO Samuel O: Maths/Statistics Dept Federal Poly Nekede, Nigeria</p> <p>Age is a very important demographic variable. Most demographic data, presentation, analysis and reports are classified on age and sex. Despite these great importance, errors in age reporting are still prevalent thus raising questions and concern about the validity and quality of such data. With regards to these, this paper focuses on detection of errors and evaluating the quality of age based data. Whipple and Meyers indices were used. Ghana and Nigeria NDHS 1998 were analysed.</p>



LIST OF PRESENTERS



LIST OF PRESENTERS ONLY

Presenter Name	Affiliation and Address	Country	Email
ABU Mumuni	Regional Institute for Population Studies RIPS, Box LG 96, University of Ghana Accra	Ghana	abumus2000@yahoo.com
ADAMS NABIE Vivian	Regional Institute for Population Studies RIPS, Box LG 96, University of Ghana Accra	Ghana	nabievivian@gmail.com
ADEJOH Pius E	Department of Sociology, Faculty of Social Sciences, University of Lagos, Akoka	Nigeria	piusadejoh@yahoo.com
Dr. ADU-DAPAAH Hans	Csir-Crops Research Institute, Box 3785, Kumasi, Ghana	Ghana	hadapaah@yahoo.com
AGBO Maria	FCT College of Education, Zuba - Abuja, Nigeria P.M.B 61, Garki, Abuja	Nigeria	cculfckubwa@rocketmail.com
Dr. AGBOR Uno I	University Of Calabar Department Of Public Administration, University Of Calabar	Nigeria	kenijim@yahoo.com
AGYEI Kwame	P. O. Box 10 Agona Nsaba	Ghana	kwameagyeikyei@yahoo.com
Dr. AGYEMANG Seth	Kwame Nkrumah University of Science and Technology, Kumasi	Ghana	sagye123@yahoo.co.uk
Dr. AMEKUDZI Leonard K	Kwame Nkrumah University of Science and Technology, Kumasi	Ghana	leonard.amekudzi@gmail.com
Dr. AMIKUZUNO Joseph	University for Development Studies, Nyankpala Campus, P. O. Box 1882, Tamale	Ghana	amikj26@yahoo.com
BADMOS Biola K	Kwame Nkrumah University Of Science and Technology, Civil Engineering Department, PMB, KNUST. Kumasi	Ghana	biolakz@yahoo.com
DOEGAH Phidelia T	Regional Institute for Population Studies RIPS, Box LG 96, University of Ghana Accra	Ghana	phideliadoegah@yahoo.com
ENGLAMA Esther N	FCT College of Education, P.M.B 61, Garki, Abuja Garki-Abuja	Nigeria	englamaesther@yahoo.com
Dr. ESSOKA Pauline A	Department of Geography and Environmental Science, University of Calabar, P.M.B. 1115, Calabar	Nigeria	asuquo4sec@yahoo.com / payukessoka@yahoo.com
EWOODZIE Dorcas	Regional Institute for Population Studies RIPS, Box LG 96, University of Ghana Accra	Ghana	mad_sek@yahoo.com
FEUDJIO TSAGUE Mireille P	World Agroforestry Centre (ICRAF), West and Central Africa Region, Po Box 16317 Yaoundé	Cameroon	M.Feudjio@cgiar.org, feutsami@yahoo.fr



LIST OF PRESENTERS



HARRISON Ubong E	c/o Prof. F. E. Bisong, Dept of Geography & Environmental Science, University of Calabar, Calabar	Nigeria	ubongeharrison@yahoo.com
Dr. KOLAWOLE Ayorinde E	Department of Agricultural Economics and Extension, School of Agriculture, North West University, P M Box 2046, Mafikeng, Mmabatho	South Africa	ayorindeline@yahoo.ca
Dr. KWADZO Moses	University of Cape Coast Department of Agric. Economics & Extension Sasakawa Centre, Cape Coast	Ghana	Kwamo50@yahoo.com
LARBI Reuben T	Regional Institute for Population Studies, University of Ghana, Legon, P.O. Box LG96, Accra	Ghana	reuben.tete.l@gmail.com
MERIBE nnaEmeka C	Department of Strategic Communications, School of Humanities and Social Sciences, Faculty of Arts, La Trobe University, Victoria 3083, Melbourne	Australia	ncmeribe@yahoo.com
MOHAMMED Asaah S	University For Development Studies, Department of community development, UDS, BOX UPW 3, Wa	Ghana	asaahuds@gmail.com
MURWENDO Talent D	Great Zimbabwe University, Faculty of Natural Sciences Department of Geography and Environmental Sciences. O. Box 1235 Masvingo	Zimbabwe	dmurwendo@gmail.com
MUTUNGA Clive	Population Action International 1300 19th St NW Suite 200, Washington, DC 20036 Washington DC	United States	cmutunga@popact.org
Dr. NYAMBI Gwendoline N	Department of Agricultural Economics and Extension, North West University Mafikeng Campus, Mmabatho 2735, Private Bag X2046, Mafikeng	South Africa	gnyambi@yahoo.com
Prof ODJUGO Ovuyovwiroye PA	University of Benin Department of Geography and Regional Planning, University of Benin, P. M. B. 1154, Benin City, Edo State, Nigeria. Benin City	Nigeria	paoodjugo@yahoo.com
OKOJIE Monday U	FCT College Of Education Zuba. P. M. B. 61, Garki - Abuja.	Nigeria	okojiemon@yahoo.com
Prof OLADELE Idowu O	Department of Agricultural Economics and Extension, North West University, Mafikeng Campus, South Africa Private Bag X 2046 Mafikeng	South Africa	oladimeji.oladele@nwu.ac.za
Dr. OLAJIDE Oluwafunmiso A	Department of Agricultural Economics, Faculty of Agriculture and Forestry, University of Ibadan, Ibadan Oyo State, Ibadan	Nigeria	preciousfunso@yahoo.com
PHILIP OGOH Agnes	FCT College of Education, Zuba - Abuja, Nigeria P.M.B 61, Garki, Garki-Abuja	Nigeria	philiagnes@gmail.com



LIST OF PRESENTERS



Dr. UTTAH Emmanuel C	Department of Biological Sciences, Cross River University of Technology Calabar	Nigeria	drecuttah@yahoo.com
UTTAH Chinasa	University of Calabar, Department of Geography and Environmental Sciences, University of Calabar, Calabar	Nigeria	nasauttah@yahoo.com
ZAKARIAH Tanimu T	FCT College Of Education Zuba. P. M. B. 61, Garki - Abuja, Abuja.	Nigeria	zaktanimu@yahoo.com
Prof ADEKOYA Emmanuel A	Dept. of Agric. Ext. and Rural Development, University of Ibadan	Nigeria	vichenfel2@yahoo.com
Dr. ADEYEMI Oluwagbemiga E	RM 217, Dept of Sociology, Faculty of Social Sciences Lagos State University, Ojo Lagos	Nigeria	gbemibola@gamil.com
ADEYEMO Samuel O	Federal Polytechnic Nekede, Maths/Statistics Department, Federal Polytechnic Nekede, P.M.B 1036, Owerri, Imo State	Nigeria	Unclesamm66@gmail.com
Dr. ALEMAGI Dieudonne	World Agroforestry Centre Regional Office for Central and West Africa, P.O. Box 16317, Yaoundé, Cameroon	Cameroon	D.Alemagi@cgiar.org
Dr. AMIKUZUNO Joseph	University for Development Studies, Department of Agricultural and Resource Economics, P. O. Box 1882, Tamale	Ghana	amikj26@yahoo.com
Dr. AMOO Emmanuel O	Covenant university Km 10 Idi-Iroko Road, Canaanland, Ota, Ogun State.	Nigeria	amco50amoo@gmail.com
Dr. OGUNLEYE- ADETONA Comfort Iyabo	Department of Geography and Environmental Management, University of Ilorin Kwara State, Nigeria	Nigeria	adeogunleye2005@yahoo.com
Prof KWANKYE, Stephen O.	Regional Institute for Population Studies RIPS, Box LG 96, University of Ghana Accra	Ghana	kwankyeso@yahoo.co.uk, kwankyes@ug.edu.gh
AGBO Maria	FCT COLLEGE OF EDUCATION ZUBA. P.M. B. 61, GARKI - ABUJA	Nigeria	okojiemon@yahoo.com
Dr. ONABANJO Oluwasegun D	Department of Sociology, Olabisi Onabanjo University, Ago-Iwoy	Nigeria	kemiolusegunforever@yahoo.com
YUSUFF Olabisi S	Lagos State University LASU Post- Office PMB-0001 Ojo, Lagos, State- Nigeria Ojo/ Lagos	Nigeria	soyusuf@yahoo.co.uk

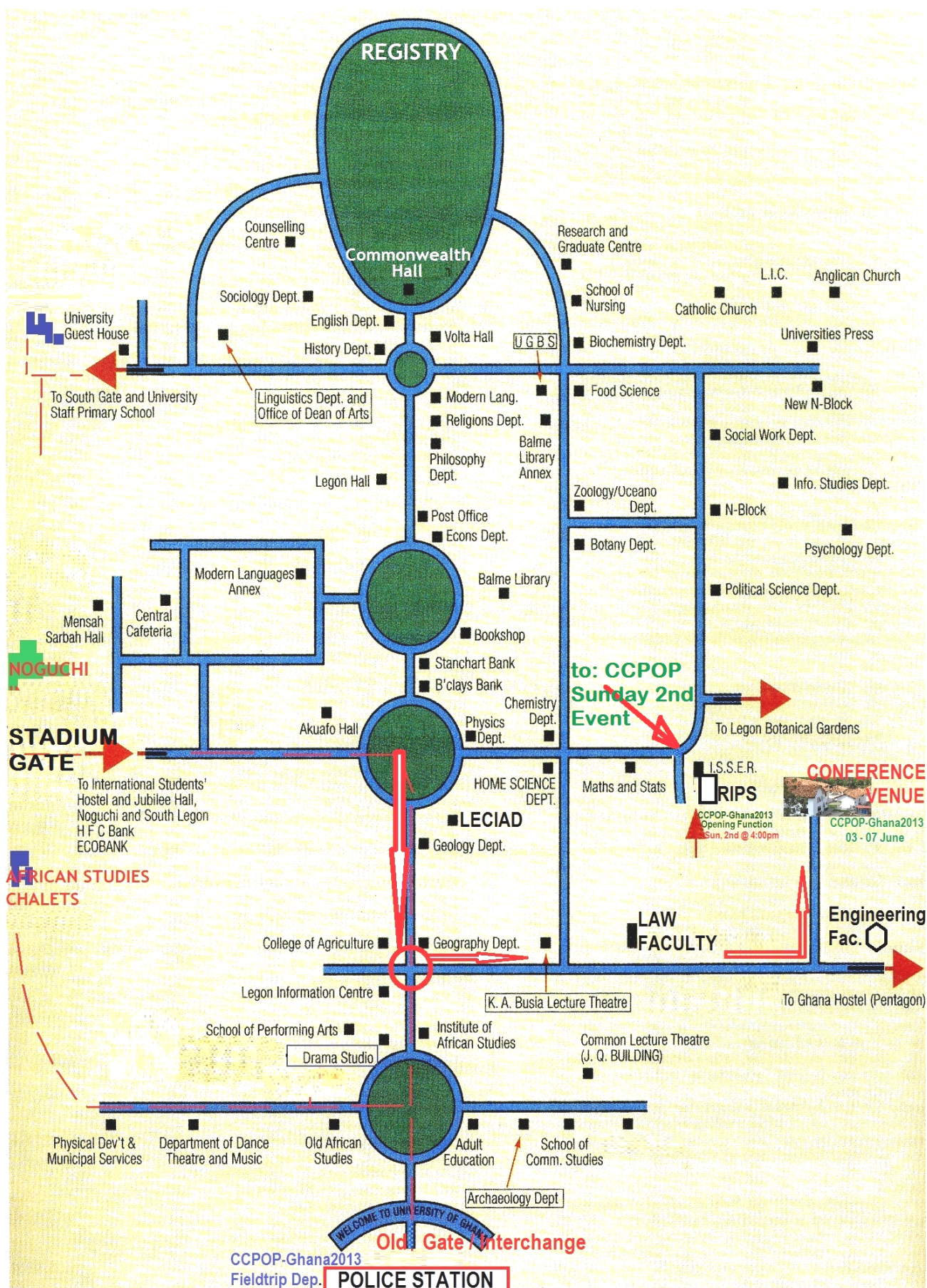


YOUR MEMO





DIRECTION TO CONFERENCE VENUE





Our Sponsors – THANK YOU



PLATINUM



Climate & Development
Knowledge Network

SILVER



BRONZE



RIPS - LEGON, GHANA CDKN PROJECT - WORKING WITH POLICYMAKERS & COMMUNITIES TOWARDS CC ADAPTATION

<http://cdkn.org/2013/05/opinion-bridging-the-gaps-between-climate-risk-research-community-resilience-and-policy-formulation/>



CC POP - GHANA 2013

Regional Institute for Population Studies
University of Ghana



Theme:

Climate Change Risks and Development
at Crossroads - Sharing Lessons

