

FIFTH INTERNATIONAL CONFERENCE ON CLIMATE CHANGE: IMPACTS AND RESPONSES

PORT-LOUIS, MAURITIUS

18-19 JULY 2013

www.on-climate.com



C O M M O N
G R O U N D



The Climate Change Knowledge Community would like to acknowledge and extend a special thank you to Allied Network for Policy, Research and Actions for Sustainability (ANPRAS) and Ireland Blyth Limited (IBL).



TABLE OF CONTENTS

CLIMATE CHANGE: IMPACTS & RESPONSES	4
LETTER FROM CONFERENCE HOST	5
ABOUT COMMON GROUND	5
THE CLIMATE CHANGE CONFERENCE KNOWLEDGE COMMUNITY	6
ABOUT THE CONFERENCE	7
SCOPE AND CONCERNS	7
THEMES	8
SESSION GUIDELINES	9
SESSION TYPES.....	9
CONFERENCE PROGRAM	12
DAILY SCHEDULE	13
CONFERENCE HIGHLIGHTS	14
CONFERENCE SECRETARIAT	14
EVENTS AND ACTIVITIES	14
CONFERENCE PLENARY SPEAKERS	15
SCHEDULE	16
THURSDAY 18 JULY	16
FRIDAY 19 JULY	22
GRADUATE SCHOLARS	27
INTERNATIONAL ADVISORY BOARD	28
LIST OF PARTICIPANTS	29
SCHOLAR: A SOCIAL KNOWLEDGE PLATFORM	31

CLIMATE CHANGE: IMPACTS & RESPONSES

LETTER FROM CONFERENCE HOST

Dear Climate Change Conference Delegate,

Welcome to the Fifth International Conference on Climate Change: Impacts and Responses. This conference and its associated journal have been created to promote dialogue across diverse fields and multiple perspectives, on the question of climate change. It examines evidence of climate change, considers its impacts, and addresses current and potential responses. Thank you for joining this important dialogue and sharing your enthusiasm, insight and concern.

By way of background, the Inaugural Climate Change Conference was held in Pune, India at Bharati Vidyapeeth University. The 2010 conference was held at the University of Queensland in Brisbane, Australia; the 2011 conference was held in Rio de Janeiro, Brazil; and the 2012 conference was held in Seattle, Washington, USA. We meet annually in different locations around the world and publish papers from the conference in *The International Journal of Climate Change: Impacts and Responses*.

In addition to organizing the Climate Change Conference, Common Ground publishes papers from the conference at www.Climate-Journal.com, and we do encourage all conference participants to submit a paper based on their conference presentation for peer review and possible publication in the journal. We also publish books at <http://onclimate.com> in both print and electronic formats. We would like to invite conference participants to develop publishing proposals for original works, or for edited collections of papers drawn from the journal which address an identified theme. Finally, please join our online conversation by subscribing to our monthly email newsletter, and subscribe to our Facebook, RSS, or Twitter feeds at <http://on-climate.com>.

Common Ground also organizes conferences and publishes journals in other areas of critical intellectual human concern, including diversity, museums, technology, humanities and the arts, to name several (see <http://commongroundpublishing.com>). Our aim is to create a new form of the knowledge community, where people meet in person and also remain connected virtually, making the most of the potentials for access via digital media. We are also committed to creating a more accessible, open and reliable peer review process. Alongside opportunities for well-known academics, we are creating new publication openings for academics from developing countries, for emerging scholars and for researchers from institutions that have historically focused on teaching.

We are also proud to announce the launch of Scholar, created in an association between Common Ground and the University of Illinois. If the social glue that holds together Facebook is 'friends' and the stickiness of Twitter is having 'followers', then the common bond created in Scholar is 'peers' working together in knowledge producing communities. We call this a 'social knowledge' space. Not only can you join the Climate Change community in Scholar. You can also create your own knowledge communities and use Scholar as a learning space, with a strong focus on peer-to-peer dialogue and structured feedback. For more information, visit www.cgscholar.com.

Thank you to everyone who has prepared for this conference including our co-organizers and supporters, Action Network for Policy, Research and Actions for Sustainability (ANPRAS). A personal thank you and acknowledgement goes to the Executive Chairman of ANPRAS, Dr. Gowtam Raj Chintaram. I'd also like to thank my Common Ground colleagues who have put such a significant amount of work into this conference: Kelsey Shannon and Izabel Szary.

We wish you all the best for this conference, and hope it will provide you every opportunity for dialogue with colleagues from around the corner and around the world. And we hope you will be able to join us at next year's conference in Reykjavik, Iceland!

Yours Sincerely,



Bill Cope
Director, Common Ground Publishing
Professor, Education Policy, Organization, and Leadership
University of Illinois, Urbana-Champaign, USA

ABOUT COMMON GROUND

MISSION: Common Ground Publishing aims to enable all people to participate in creating collaborative knowledge and to share that knowledge with the greater world. Through our academic conferences, peer-reviewed journals and books, and innovative software, we build transformative knowledge communities and provide platforms for meaningful interactions across diverse media.

PHILOSOPHY: Common Ground is committed to building dynamic knowledge communities that meet regularly in face-to-face interaction, connect in a virtual community of web spaces, blogs and newsfeeds, and publish in fully refereed academic journals. In this way, we are bringing to the fore our commitment to explore new ways of making and disseminating academic knowledge. We believe that the Internet promises a revolution in the means of production and distribution of knowledge, a promise, as of yet, only partially realized. This is why we are working to expand social and technical frontiers in the production of text, so that academic publishing gains the immediacy, speed and accessibility of the web whilst nevertheless maintaining—and we would hope enhancing—the intellectual standards of legacy peer refereed journals. To support these kinds of emerging knowledge communities, Common Ground continues to have an ambitious research and development agenda, creating cutting edge 'social web' technologies and exploring new relationships of knowledge validation.

CONNECTING THE GLOBAL WITH THE LOCAL: Common Ground conferences connect with different host universities and local communities each year, seeking fresh perspectives on questions of global concern. In recent years, we have worked with a wide range of educational institutions including (to list just a few): Beijing Normal University; The Australian National University; The University of London; The Institute for Pedagogical Sciences, Cuba; University of California, Los Angeles; The University of Cambridge, UK; The University of Carthage, Tunisia; Columbia University, New York; Singapore Management University; McGill University, Montreal; The University of Edinburgh, Scotland; and New York University in New York City. At conference sites, we bring the global to the local—academics, researchers and practitioners from around the world gather to discuss conference topics. At the same time, we also bring the local to the global, as local academics and community leaders speak from the perspective of local knowledge and experience. For links to each our twenty-four knowledge communities, visit www.commongroundpublishing.com.

THE CLIMATE CHANGE CONFERENCE KNOWLEDGE COMMUNITY

At a time when knowledge communities are being redefined and disciplinary boundaries challenged, Common Ground aims to develop innovative spaces for knowledge creation and sharing. Through our conferences, journals and online presence we attempt to mix traditional face-to-face interaction with new 'social web' technologies. This is a part of our attempt to develop new modes of deliberation and new media for the dissemination of ideas. Common Ground is founded upon and driven by an ambitious research and knowledge design agenda, aiming to contest and disrupt closed and top-down systems of knowledge formation. We seek to merge physical and online communities in a way that brings out the strengths in both worlds. Common Ground and our partners endeavour to engage in the tensions and possibilities of this transformative moment. We provide three core ways in which we aim to foster this community:

Present: You have already made the first step and are in attendance. We hope this conference provides a valuable source of feedback for your current work and the possible seeds for future individual and collaborative projects. We hope your session is the start of a conversation that continues on past the last day of the conference.

Publish: We also encourage you to publish your paper in *The International Journal of Climate Change: Impacts and Responses*. In this way, you may share the finished outcome of your presentation with other participants and members of the Climate Change Conference. You also have access to the complete works of *The International Journal of Climate Change: Impacts and Responses* in which the published work of participants from the conference who submitted papers may be found.

Engage with the Community Online: Each conference presenter is provided a personal CGPublisher website with public and private spaces where you are able to post your photo, biography, and CV; make links to other sites of personal interest; and create a space where collaborators may be invited to access and comment on your works-in-progress. In addition, you can contribute to the online community via our blog, email newsletter and social networking sites.

- The *Blog* and links to other social networking sites can be found at <http://on-climate.com/the-latest-news>.
- *Email Newsletters:* Please send suggested links for news items with a subject line 'Email Newsletter Suggestion' to support@on-climate.com. The email newsletter is distributed to all members of the Climate Change knowledge community.
- *Facebook:* Find us on Facebook at: www.facebook.com/OnClimate.CG
- *Twitter:* You can now follow the Climate Change Conference Community on Twitter: @onclimate
- *YouTube Channel:* View online presentations at <http://www.youtube.com/user/CGPublishing>. Create your own YouTube presentation with a link to your session description on the conference website, and (if your paper is accepted to the journal), a link to the abstract of your paper on the journal website. See instructions at <http://on-climate.com/the-conference/types-of-conference-sessions/online-presentations/>.

ABOUT THE CONFERENCE

SCOPE AND CONCERNS

CLIMATE CHANGE: THE EVIDENCE

Climate is one of the pivotal and dynamic forces in the natural history of the earth. Paleoclimatology provides us a long view of the ebb and flow of climate change, and a framework within which to interpret its ecosystemic consequences. In some times and places climate change explains processes of biodiversification, in other times and places a reduction in biodiversity. In this long view, the history of life on earth is integrally related to climatological history. For the first time in natural history, the conscious actions of one creature—homo sapiens—have come to influence the course of earth's natural history, not just in local ecosystems, but on a planetary scale. This has been the case since humans began a process of populating the whole earth about one hundred thousand years ago. Ecosystems were revolutionized by the sustained yield harvesting technologies of hunters and gathers, then the farming and animal husbandry technologies of self-sufficient peasantries, and most recently and most intensively by the global division of labor of the industrial revolution, market-directed agriculture, the widespread clearing and harvesting of forests and the use of fossil fuels. It is now widely accepted that the most recent phase of human society has had an impact on the earth's climate. Greenhouse gases are heating up the earth. Ice that was permanent until recently, is rapidly melting. Sea levels are rising. Extreme weather events are occurring with greater frequency. Different regions are affected by these changes in different ways. Some of the changes we are experiencing today may be part of the course of natural history. Other changes, many scientists agree, are the byproduct of human activity. Key questions include: how do we measure and explain these changes? What are their immediate and likely future impacts? And what is to be done? These are questions of practical concern and growing urgency.

ECOSYSTEMIC IMPACTS

There is today the potential for disastrous impacts on ecosystems, communities, species and genetic diversity that could well lead to mass extinctions in a relatively brief period. For instance, the special effects of glacial melt on mountain and riverine biodiversity and that of sea level rise on coastal and mangrove systems raise concerns for the future of biodiversity. The effect of climate change on coral reefs is already a major concern. Increased rainfall variability (in especially monsoon regions) could dry up or expand wetlands temporarily which in both scenarios would be disastrous. The most affected ecosystems will undoubtedly be situated in mountains, forests (especially evergreen types), grasslands, deserts and wetlands. Glacial, riverine and coastal ecosystems will also be altered. Knowledge currently available by simulating possible changes in Dynamic Global Vegetation models, clearly demonstrates that there will be further species loss. Many species ill-adapted to environmental disturbances may vanish without a trace before scientists can detect decline. The specific regional impacts on biomes and the vulnerabilities of different ecosystems across the globe need to be assessed. There are parallels between some areas, while there are subtle and complex dissimilarities between the changes that are occurring in different parts of the world. These include floods, drought, forest fires, hurricanes and other sporadic events that could devastate endemic species and threaten microhabitats. Some ecosystems could be highly vulnerable and will not be able to respond even to short term impacts such as natural disasters. In the presence of climate change, these short term events could be even more cataclysmic. The possible impacts of invasive alien species that will spread due to climatic change are very little understood and could be devastating. The possibility of 'ecological surprises' in sensitive areas also needs to be addressed. Extreme weather events could be especially damaging. There is thus a great need for scientists and practitioners to be brought on a common platform that will at least reduce the ill effects on species ecosystems and protected areas. The Conference, Journal, Book Imprint and News Blog will share international research based on local experiences, so that mitigation and adaptation to climate change can be understood by scientists, policymakers and practitioners concerned with the management of different ecosystems.

HUMAN IMPACTS

Humans are agents in climate change due to their production of greenhouse gases and their patterns of land use. Humans will also be affected by climate change in many ways: including shifting shorelines, declining agricultural productivity, crisis of food supply, availability of water, the health of populations and extreme weather events. For instance, environment related diseases could spread rapidly in epidemic proportions with changes in water availability and quality. These impacts will be felt differentially in developed and developing worlds. Marginalized populations of people may not only have their lives and livelihoods affected, but also be affected by declines in species abundance and diversity of ecosystems upon which they are dependent at a landscape level. In heterogeneous landscapes with a mix of wilderness islands within a changing agricultural environment, urbanization and industrial spread could well increase pressures on protected area networks as the effects of climatic changes increase. Agricultural communities, especially traditional farmers and pastoralists, may be forced to shift into what is now within the protected area networks in developing countries.

2013 Climate Change Conference

FRAMING RESPONSES

This peculiar creature in natural history, homo sapiens, is increasingly being recognized by scientists to be an agent of climate change, though the precise mix of natural and human causes has yet to be determined. With conscious agency lacking in other species, comes a unique species responsibility for the future course of natural history. On the experience of the past one hundred thousand years, humans are clearly capable of adaptive responses. Our species has the capacity or can develop the capacity to nurture nature through a period of transition, for instance by creating corridors to assist species adaptation and inventing new agricultures which alleviate and mitigate the effects of climate change. Humans are also capable of precautionary action, reducing greenhouse gases for instance as part of a broader strategy of sustainable development. We may even be able to master technologies which balance and stabilize climate change. The key, however, will be the extent to which our species can take a proactive role, be that technological or acts of social and political will that produce changed patterns of land and energy use. Like no other creature in natural history, and like no other time in this creature's history, this is moment when the future of the planet is in our hands. The consciousness which made us a unique species perhaps a hundred thousand years ago, for the first time today puts us in a position of unprecedented responsibility for the course of natural history. Climate change is a key intellectual and practical challenge for today's science, economics, politics, sociology and ethics.

THEMES

THEME 1: SCIENTIFIC EVIDENCE

- Paleoclimatology: the earth's climate in a long view
- Climate change today: examining the data
- Ice cap reduction and glacial melt
- Sea level change
- Floods, drought, forest fires, hurricanes and other sporadic events
- Albedo or measuring the earth's reflectiveness
- Meteorology and climate informatics
- Equilibria and disequilibria: change processes and countervailing tendencies
- Climate measurement processes, methodologies and technologies
- Reading complex, dynamic and unstable systems
- Developing local and global climate models
- Change scenarios: slow, rapid, abrupt or episodic

THEME 2: ASSESSING IMPACTS IN DIVERGENT ECOSYSTEMS

- Ocean currents and el Niño
- Riverine ecosystem impacts
- Mountain ecosystem impacts
- Coastal ecosystem impacts
- Marine ecosystem impacts
- Forest and grassland ecosystem impacts
- Impacts on wilderness and protected areas
- Impacts on specific biomes
- Impacts on biodiversity, potential extinctions
- Hardiness zone migration
- Regional variations: temperature and rainfall

THEME 3: HUMAN IMPACTS AND IMPACTS ON HUMANS

- Anthropogenic factors in climate change: determining the relative contribution of natural and human causes
- Impacts of carbon dioxide and other greenhouse gases
- Land use patterns, agriculture and livestock husbandry and deforestation as factors in climate change
- Impacts on humans: agriculture, fish stocks, food supply, health
- Human settlements and sea level rise
- Impacts on humans: water supply, desertification
- Impacts on humans of intense weather events, natural disasters and ecological surprises
- Impacts of climate change in the developing world

THEME 4: TECHNICAL, POLITICAL AND SOCIAL RESPONSES

- Environmental policies in response to climate change
- Controversy and denial: politics, the media and scientists with dissenting views
- The international politics of climate change
- The past, present and future of international agreements
- Education and awareness for management of global climate change
- Protected areas and preservation of biodiversity: 'corridor' and other strategies
- Strategies for sustainability
- Human adaptive strategies
- Technologies of mitigation: carbon dioxide sequestration, solar shades and other processes
- Alternative and renewable energy sources: technologies, policies and strategies
- Carbon taxes, offsets and trading
- Emission standards
- Climate ethics and the precautionary principle
- Eco-development, eco-efficiency

SESSION GUIDELINES

CHAIRING OF PARALLEL SESSIONS

Common Ground usually provides graduate students to chair all of the parallel sessions. If you wish, you are welcome to chair your own session, or provide your own chair or facilitator for your session. The chair's role is to introduce the presenter and keep the presentation within the time limit.

PROGRAM CHANGES

Please see the notice board near the conference registration desk for any changes to the printed program (e.g., session additions, deletions, time changes, etc.). If a presenter has not arrived at a session within 5 minutes of the scheduled start time, we recommend that participants join another session. Please inform the registration desk of 'no-shows' whenever possible.

SESSION TYPES

PLENARY

Plenary sessions, by some of the world's leading thinkers, are 30 minutes in length. As a general rule, there are no questions or discussion during these sessions. Instead, plenary speakers answer questions and participate in discussions during their Garden Sessions (see below).

GARDEN SESSIONS

Garden Sessions are unstructured sessions that allow delegates a chance to meet plenary speakers and talk with them informally about the issues arising from their presentation. When the venue and weather allow, we try to arrange for a circle of chairs to be placed outdoors.

PAPER PRESENTATIONS IN THEMED SESSIONS

Paper presentations are grouped by general themes or topics into Themed Sessions. Each presenter in the session makes a formal fifteen-minute presentation of their work; Q&A and group discussion follow after all have presented. Each presenter's formal, written paper will be available to participants if accepted to the journal.

WORKSHOP/INTERACTIVE SESSION

Workshop sessions involve extensive interaction between presenters and participants around an idea or hands-on experience of a practice. These sessions may also take the form of a crafted panel, staged conversation, dialogue or debate – all involving substantial interaction with the audience. A single article (jointly authored, if appropriate) may be submitted to the journal based on a workshop session.

POSTER SESSIONS

Poster sessions present preliminary results of works in progress or for projects that lend themselves to visual displays and representations. These sessions allow for engagement in informal discussions about the work with other delegates throughout the session.

COLLOQUIUM

Colloquium sessions consist of five or more short presentations with audience interaction. A single article or multiple articles may be submitted to the journal based on the content of a colloquium session.

2013 Climate Change Conference

VIRTUAL PRESENTATION

Virtual presentations are papers submitted without the participant attending the conference in person, but are eligible to be refereed and published (if accepted) in the journal. A virtual presentation allows participants to join the conference community in the following ways:

- The conference proposal will be listed in the Session Descriptions of the conference.
- Acceptance of a conference proposal for a virtual participant is based on the same criteria as that for an attending participant.
- The full paper may be submitted to the journal.
- The journal paper submission will be refereed against the same criteria as attending participants. If accepted, the paper will be published in the same volume as conference participants from the same year.
- Online access to all papers published in the journal from the time of registration until one year after the conference end date.

TALKING CIRCLES

Talking circles are meetings of minds, often around points of difference or difficulty. They are common in indigenous cultures. The inherent tension of these meetings is balanced by protocols of listening and respect for varied viewpoints. From this, rather than criticism and confrontation, productive possibilities may emerge.

The Purpose of Talking Circles in this Conference

The purpose of the Talking Circles is to give shape to a conference that is wide-ranging in its scope and broad-minded in its interests. They also give people an opportunity to interact around the key ideas of the conference away from the formalities of the plenary, paper, workshop and colloquium sessions. They are places for the cross-fertilization of ideas, where cycles of conversation are begun, and relationships and networks formed.

Talking Circles are not designed to force consensus or even to strive towards commonality. Their intention is, in the first instance, to find a common ground of shared meanings and experiences in which differences are recognized and respected. Their outcome is not closure in the form of answers, but an openness that points in the direction of pertinent questions. The group finally identifies axes of uncertainty that then feed into the themes for the conference of the following year.

How Do They Work?

The Talking Circles meet for two sessions during the conference, and the outcomes of each Talking Circle are reported back to the whole conference in the closing plenary session. They are grouped around each of the conference themes and focus on the specific areas of interest represented by each theme. Following is the Talking Circles outline that is currently in use, but we welcome feedback and suggestions for improvement from participants.

Talking Circle 1 (45 minutes): Who Are We? What is our common ground?

Talking Circle 2 (40 minutes): What is to be done?

Closing Plenary: Talking Circles report back.

It is important to note that each Talking Circle may be organized in any way that members of the group agree is appropriate. They may be informal and discursive, or structured and task-oriented. Each Talking Circle group has a facilitator.

The Role of the Facilitator

The facilitator must be comfortable with the process of thinking 'out of the square' and also embracing multiple and diverse scenarios. The process is one of creating a kind of collective intelligence around the theme. The facilitator should shape a conversation that is open to possibilities and new lines of inquiry or action; they should embody a spirit of openness to new knowledge rather than the closure of advocacy. The facilitator is required to keep a record of the main discussion points. These points need to be summarised for the closing plenary session at the conference.

Possible Session Contents - Suggestions to Assist Facilitators

Talking Circle 1 (45 minutes): Who are we?

Orientation: members of the group briefly introduce themselves.

- What could be the narrative flow of the Talking Circle sessions?
- What could be the outcomes of the work of this group and its contribution to the closing plenary session, the Journal and the Conference as a whole (including the themes for next year's conference)?
- Assessing the landscape, mapping the territory: What is the scope of our theme? Do we want to rename it?
- What are the burning issues, the key questions for this theme?
- What are the forces or drivers that will affect us as professionals, thinkers, citizens, and aware and concerned people whose focus is this particular theme?
- Where could we be, say, ten years hence? Scenario 1: optimism of the will; Scenario 2: pessimism of the intellect.

Talking Circle 2 (40 minutes): What is to be done?

What are our differences?

- The setting: present and imminent shocks, crises, problems, dilemmas - what are they and what is the range of responses?
- What are the cleavages, the points of dissonance and conflict?
- What are the dimensions of our differences ?(1) Politics, society, economics, culture, technology, environment.
- What are the dimensions of our differences ?(2) Persons, organisations, communities, nations, the global order.

What is our common ground?

- Where are the moments of productive diversity?
- What are the bases for collaboration ?(1) Politics, society, economics, culture, technology, environment.
- What are the bases for collaboration ?(2) Persons, organisations, communities, nations, the global order.
- Alternative futures: outline several alternative scenarios.
- What are the forces that drive in the direction of, or mitigate against, each scenario?

What is to be done?

- What's been coming up in the parallel sessions in this theme since the last Talking Circle?
- What is the emerging view of the future?
- Can we foresee, let alone predict alternative futures?
- Looking back a decade hence, what might be decisive or seminal in the present?
- Scenarios: can we create images of possibility and agendas for robust alternative futures?
- Directions: conventional and unconventional wisdoms?
- Strategies: resilience in the face of the inevitable or creative adaptation?
- What could be done: review the scenarios developed in Talking Circle.
- Axes of uncertainty: working towards the right questions even when there's no certainty about the answers.

Closing Session: Conference Host reports to the Closing Session based on summaries provided by each Talking Circle. Each Talking Circle presents a summary of their discussion at the Closing Session.

CONFERENCE PROGRAM



DAILY SCHEDULE

THURSDAY 18 JULY

08:00-09:00	Conference Registration Desk Open
09:00-09:20	Discover Mauritius (Video Clips)
09:20-09:25	Welcome Address
09:25-09:35	Address of Chief Guest
09:35-09:45	Launching of ANPRAS's Scientific & Academic Research Committee
09:45	Conference Opening
09:45-10:15	Plenary Session: Richard Munang, Climate Change Adaptation & Development Programme for Africa, United Nations, Uganda
10:15-10:45	Break & Garden Session
10:45-11:30	Talking Circle 1
11:30-13:00	Lunch Break
13:00-14:15	Parallel Session 1
14:15-14:45	Poster Sessions (<i>Held in Le Sirius Room</i>)
14:45-14:55	Break
14:55-16:35	Parallel Session 2
17:30-19:00	Welcome Reception at Café du Vieux Conseil

FRIDAY 19 JULY

08:30-09:00	Conference Registration Desk Open
09:00-09:45	Plenary Session: Gowtam Raj Chintaram, ANPRAS, Mauritius
09:45-10:30	Plenary Session: Mokshanand Dowarkasing, Senior Advisor to the Prime Minister of Mauritius, Mauritius
10:30-11:25	Break & Garden Sessions
11:25-12:40	Parallel Session 3
12:40-13:45	Lunch Break
13:45-15:25	Parallel Session 4
15:30-16:10	Talking Circle 2
16:10-16:30	Conference Closing



CONFERENCE HIGHLIGHTS

CONFERENCE SECRETARIAT

The Conference Secretariat will be located in the La Nereide Room during the conference day. If you need to get in contact with the Conference Secretariat during the course of the conference please call the Mauritian local phone number+ 230 4485152.

EVENTS AND ACTIVITIES

CONFERENCE TOURS

Explore Mauritius: Day Bus Tour of Mauritius

Wednesday, 17 July, 8:15 – 18:00, *Pre-registration Required*

Take a tour of Mauritius and explore a unique blend of discovering the biodiversity and cultural diversity of Mauritius. The itinerary below highlights all the activities delegates will get to enjoy. A packed lunch is provided. \$14USD of every tour registration will go to buy the Le Morne Community football jerseys and balls for their youth teams. Stops include Curepipe City Centre, Curepipe Botanical Gardens, the Grand Bassin, Alexandra Falls, Charmarel, and the Le Morne Cultural Landscape.

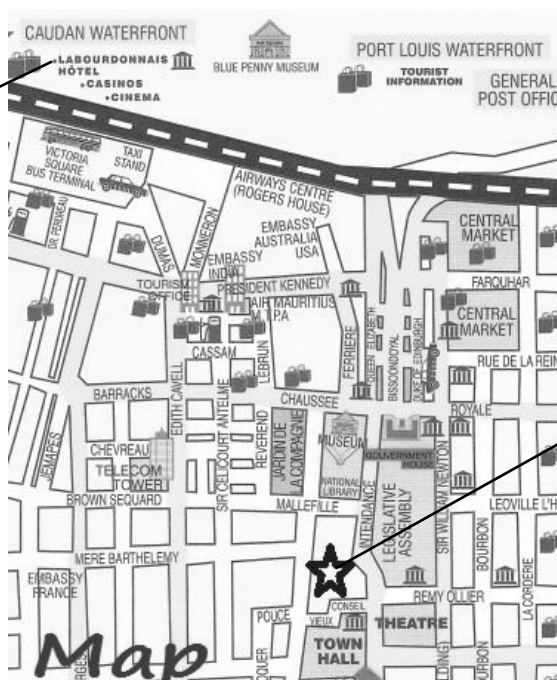
CONFERENCE RECEPTION

Café du Vieux Conseil, Port-Louis

Friday, 18 July, 17:30

A reception will be held at Café du Vieux Conseil for delegates of the Climate Change Conference. All delegates are welcome to attend and enjoy complimentary refreshments. This is an excellent opportunity to converse with plenaries and get to know your fellow delegates. Delegates are kindly requested to collect their Access Cards at the Secretariat on 18 July before the Lunch Break. *(Conference staff will walk delegates over from the Le Labourdonnais Waterfront Hotel. Please meet at 17:00 in the main lobby of Le Labourdonnais Waterfront Hotel)*

Le Labourdonnais
Waterfront Hotel



Café du Vieux Conseil

CONFERENCE PLENARY SPEAKERS

GOWTAM RAJ CHINTARAM

Dr Chintaram has been actively involved in community development, philanthropy and environmental advocacy for over a decade. He has been the founder of reputed NGOs like Association Civique Midlands (ACM), First Steps Network (FSN) and the African Network for Policy Research & Advocacy for Sustainability (ANPRAS). He has been further engaged in civil society entities at international level namely at TASAM (Turkey) and the ECOSOCC of the Africa Union. In 2008, he was acclaimed as The Most Outstanding Young Person (TOYP) of the Republic of Mauritius. Raj also spearheaded the Green Africa Awards and is considered as a key national green figure. He is the focal point for the Earth Day Network and Earth Hour Global in Mauritius and the Patron of the Earth Mauritius platform. On the academic side, Raj has worked extensively on community-based and cultural tourism; he has pioneered research in the field of cultural & heritage tourism in Mauritius. He has further been a resource person in the field of sustainability and tourism and has been delivering guest lectures in many important fora, especially on the 78th Peace-Boat Voyage.

MOKSHANAND DOWARKASING

Mokshanand Dowarkasing is Senior Advisor to the Prime Minister of Mauritius and project coordinator of the "Maurice ile Durable (MID)" commission. He was a former Member of Parliament from 2000 to 2010 and a Member of the Pan-African Parliament (PAP) from 2005 to 2010. In his capacity as MP for PAP he was very active in election observation missions on the African continent. Mr. Dowarkasing earned a BSc in Mathematics, Chemistry, and Physica and is currently completing a graduate degree in Sustainable Development.

RICHARD MUNANG

Dr. Richard Munang holds a Ph.D in Environmental Change & Policy from the University of Nottingham, United Kingdom. He is currently the UN Environment Programme Policy & Programme Coordinator for the Climate Change Adaptation & Development programme for Africa. He specializes in societal and ecosystem-based adaptation and has conducted several assessments to understand how adaptation strategies and policy can be formulated to reduce climate change impacts. As of recent his focus has been on the role of adaptation in developing country-specific low-carbon economy, the green Economy and sustainable development objectives and translating adaptation into practical business strategy. His other experience includes working as a Research Fellow at Trinity College, University of Dublin, and a lecturer at the University of Nottingham. He has participated in a wide variety of research projects and has published more than 60 articles in international peer reviewed journal.

SCHEDULE

THURSDAY 18 JULY

08:00

REGISTRATION DESK OPEN

09:00-09:20

DISCOVER MAURITIUS (VIDEO CLIPS)

09:20-09:25

WELCOME ADDRESS

09:25-09:35

ADDRESS OF CHIEF-GUEST

09:35-09:45

LAUNCHING OF ANPRAS'S SCIENTIFIC & ACADEMIC OPENING RESEARCH COMMITTEE

09:45

CONFERENCE OPENING

09:45-10:15

PLENARY SESSION

**Dr. Richard Munang, Climate Change Adaptation & Development Programme for Africa,
United Nations, Uganda**

10:15-10:45

BREAK & GARDEN SESSIONS

10:45-11:30

TALKING CIRCLE 1

Le Sirius Room: *Human Impacts and Impacts on Humans*

La Bellone Room: *Assessing Impacts in Divergent Ecosystems*

Le Laverdy Room: *Technical, Political and Social Responses*

La Magicienne Room: *Scientific Evidence*

11:30-13:00

LUNCH BREAK

13:00-14:15 PARALLEL SESSION 1

MITIGATION STRATEGIES

La Bellone Room

Adaptation to Climate Change: Israel and the Eastern Mediterranean

Prof. Mordechai Shechter, Interdisciplinary Center (IDC) Herzliya, Israel

This paper assembles the existing scientific research regarding adaptation to climate change, identifies research gaps, and defines the risks and consequences of climate change in various sectors.

Bottom-up Mitigation of Global Climate Change: Fuel Selection and Classroom Exposure

Micha Tomkiewicz, Brooklyn College of CUNY, United States — Prof. Lori Scarlatos, Stony Brook University, United States

The talk will present progress in the online/offline game/simulation that was previously presented here. The focus is to quantitatively compare world based on student choices with the real world parameters.

EDUCATING FOR SUSTAINABILITY

Le Laverdy Room

Designing an Education and Training Framework to Build Local Capacity in Climate Change Adaptation and Low Carbon Livelihoods

Dr Shireen Fahey, University of the Sunshine Coast, Australia — Geoff Dews, University of the Sunshine Coast, Australia — Dr. Noel Meyers, University of the Sunshine Coast, Australia — Graham Ashford, The University of the Sunshine Coast, Australia

An education and training framework to build local capacity in climate change adaptation and low carbon livelihoods in the Indian Ocean region

Fictional Depictions of Climate Change: An Analysis of Themes from Contemporary Climate Change Literature

Dr. Danielle Clode, Flinders University, Australia — Monika Stasiak, Flinders University, Australia

This paper explores emerging themes in contemporary climate change literature as a reflection of, and influence on, broader community perceptions about the world of the future.

Imagining Sustainable Futures for the Chagos Archipelago: Environmental Conservation versus Livelihood and Development?

Dr Laura Jeffery, University of Edinburgh, United Kingdom

Conflicting projections do not demonstrate conclusively whether proposed economic activities and infrastructural development in the Chagos MPA could make human habitation feasible while simultaneously enabling effective environmental conservation.

13:00-14:15 PARALLEL SESSION 1

HUMANKIND AND THE ENVIRONMENT

La Magicienne Room

Attitude towards Small Hotel Greening Initiative: Perspective from Tourists and Hoteliers of the Eastern Coast of Mauritius

Vanessa GB Gowreesunkar, University of Technology Mauritius, Mauritius — Dandini Thondrayen, ANPRAS, Mauritius
Sarita Nuckcheddee, ANPRAS, Mauritius — Kirti Rukmani Devi Tohul, ANPRAS, Mauritius — Jayveer Kumar Lobin, ANPRAS, Mauritius

This study investigates the attitude of tourists and small hotel managers towards green hotel initiative and attempts to make the case for its application within small hotels found in Mauritius.

The Impacts of Climate Change-induced Conflict on Pastoralism and Human Security in Northwestern Kenya: Impacts of Water and Pasture Scarcity on Livelihoods

Moses Hillary Akuno, United Nations University Institute for Sustainability and Peace, Japan

Recent prolonged droughts and unpredictable weather changes have had a direct impact on conflict, turning it to a more frequent and destructive affair.

Prospects of Payment for Environmental Services (PES) in the Feng Shui Forest in Peri-urban Hong Kong: A Policy Instrument for Climate Change Discourse

Prof. Lawal Mohammed Marafa, The Chinese University of Hong Kong, China — K.C. Sunil, The Chinese University of Hong Kong, China

Feng Shui forests are part of Hong Kong's peri-urban ecosystem, which provides environmental services. This paper examines the services and discusses prospects for policy instruments in delivering ecosystem services.

14:15-14:45 POSTER SESSION

POSTER SESSION

Le Sirius Room

The Effects of CO₂-driven pH Decline on the Early Developmental Stages of Sea Urchins from across the World

Emily Joy Frost, University of Otago, New Zealand

*The impact of ocean acidification on the ion-regulation physiology, general physiology and ion-regulation genetics on an Antarctic (*Sterechinus neumayeri*), tropical and temperate (*Evechinus chloroticus*) sea urchin species*

14:45-14:55

BREAK

14:55-16:35 PARALLEL SESSION 2

WORKSHOP

Le Sirius Room

A New Climate Change Information Framework for Behavior Change: Sharing the Framework to Facilitate Dialogue and Action on Climate Change (Runs 14:55- 15:40)

Dr Candice Howarth, Anglia Ruskin University, United Kingdom

A climate information framework is presented based on UK research to encourage action and sustainable behaviour change. It hopes to generate dialogue on its application to different case study scenarios

WORKSHOP

Le Sirius Room

Response of Coral Reef Fish to Simulated Ocean Acidification (Runs 15:50- 16:35)

Prof., Dr. Saleem Mustafa, Universiti Malaysia Sabah, Malaysia — Shigeharu Senoo, Universiti Malaysia Sabah, Malaysia — Marianne Luin, Universiti Malaysia Sabah, Malaysia

Ocean acidification driven by climate change is accelerating and impact on marine life is imminent. This paper examines how coral reef fish, groupers, are directly affected by acidification.

14:55-16:35 PARALLEL SESSION 2

COASTAL COMMUNITIES: SPECIAL TOPICS

La Bellone Room

Characteristics of Respondents in a Climate Change-affected Coastal Area in Bangladesh

Russell Kabir, Middlesex University, United Kingdom

This study explores the characteristics of coastal people of Bangladesh related to socio-economic, environmental, and demographic issues, water and toilet facilities, natural resources and access to mass media.

An Exploratory Study about the Impacts of Islets Tourism in the 'MTVC' Region in Eastern Mauritius

Dr. Gowtam Raj Chintaram, ANPRAS, Mauritius — Warda Mohungoo, ANPRAS, Mauritius — Yogshresth Sabandy, ANPRAS, Mauritius — Louis Clarel Salomon, ANPRAS, Mauritius

The small nature and uniqueness of islets have made such destinations increasingly popular. The appeal for micro destinations have popularized offshore islets tourism but also created serious environmental threats.

Ilot Bernache, Mauritius as a Tourism Recreation Islet: Impacts, Challenges and Prospects

Vanessa GB Gowreesunkar, University of Technology Mauritius, Mauritius — Toshima Makoondlall-Chadee, University of Technology, Mauritius, Mauritius — Toosy Ramnauth, Mauritius

This study investigates the impacts of tourism activities on Ilot-Bernache, a unique islet, forming part of the island of Mauritius. The challenges and prospects are examined and recommendations are proposed.

COASTAL COMMUNITIES: SPECIAL TOPICS (CONTINUED)...

COASTAL COMMUNITIES: SPECIAL TOPICS (CONTINUED)

La Bellone Room

Using Integrated Models for Adaptation Planning: Evaluating Adaptation

Investments for the Tourism Sector in the Coastal Zone of Mauritius

Graham Ashford, The University of the Sunshine Coast, Australia — Dr. Noel Meyers, University of the Sunshine Coast, Australia — Geoff Dews, University of the Sunshine Coast, Australia — Dr Shireen Fahey, University of the Sunshine Coast, Australia

Mauritius' coastal pilot study to evaluate adaptation and disaster risk reduction strategies using economic cost-benefit analysis in combination with sustainable development criteria as part of a multi-criteria decision making process

14:55-16:35 PARALLEL SESSION 2

LARGE SCALE IMPLICATIONS

Le Laverdy Room

Analysis of Tropical Cyclones Dynamics and Its Impacts

Yee Leung, The Chinese University of Hong Kong, China

The paper presents the dynamics of tropical cyclone recurvatures, landfalls and intensities under climate anomalies, particularly in ENSO years. It also introduces a powerful system for analysis, prediction and decision-making.

Assessing Hydrological Impacts of Climate Change Using Monthly Water Balance Models

Dr. Yongqin Chen, Chinese University of Hong Kong, Hong Kong Special Administrative Region of China

This paper presents a study that analyzes and compares the performance and underlying mechanism of six monthly water balance models in a climate change assessment of hydrological impacts.

A Climate Model Intercomparison at the Dynamics Level

Prof. Anastasios Tsonis, University of Wisconsin-Milwaukee, United States — Dr. Karsten Steinhäuser, University of Minnesota, United States

A systematic comparison of CMIP3 forced and unforced runs for the purpose of evaluating the robustness of climate simulations and projections.

Water and Climate Change: An Integrated Approach to Address Adaptation Challenges

Dr. Udaya Sekhar Nagothu, The Norwegian Institute for Agricultural and Environmental Research, Bioforsk, Norway

The study addresses how improved integrated water management practices could increase agricultural production and food security, protect natural systems and be a "game changer" for national food security.

14:55-16:35 PARALLEL SESSION 2

CLIMATE CHANGE CHALLENGES

La Magicienne Room

Carbon Neutral Mine Site Villages: Calculation and Offset Mechanism

Mr David Goodfield, Murdoch University, Australia — Dr. Martin Anda, Murdoch University, Australia — Prof. Goen Ho, Murdoch University, Australia

Calculation of the carbon footprint of minesite villages is a complex process. A sustainable solution to offset the total carbon is equally hard to determine and justify to the stakeholders.

A Lost Polar Bear in London: Visualising Climate Change and U.K. National Press Coverage of the Rio+20 Summit

Prof. Alison Anderson, University of Plymouth, UK, United Kingdom

This paper examines the role that celebrity advocacy played in the reporting of the 2012 Rio Earth Summit in the British newspaper press.

Modern Bioenergy Technologies for Universalizing Energy Access in India: Solving the Conflicting Challenges of Climate Change and Development

Dr. Balachandra Patil, Indian Institute of Science, India

This paper details an innovative approach to India's energy challenges: limited access to modern energy services, the need to expand energy systems to achieve economic growth, and climate change threats.

17:30

WELCOME RECEPTION

A reception will be held at Café du Vieux Conseil for delegates of the Climate Change Conference. All delegates are welcome to attend and enjoy complimentary refreshments. This is an excellent opportunity to converse with plenarities and get to know your fellow delegates. Delegates are kindly requested to collect their Access Cards at the Secretariat on 18 July before the Lunch Break. (Conference staff will walk delegates over from the Le Labourdonnais Waterfront Hotel. Please meet at 17:00 in the main lobby of Le Labourdonnais Waterfront Hotel)

FRIDAY 19 JULY

08:30

REGISTRATION DESK OPEN

09:00-09:50

PLENARY SESSION

Mokshanand Dowarkasing, Senior Advisor to the Prime Minister, Mauritius

10:00-10:30

PLENARY SESSION

Gowtam Raj Chintaram, Allied Network for Policy Research & Advocacy for Sustainability (ANPRAS), Mauritius, Mauritius

10:30-11:25

BREAK & GARDEN SESSION

11:25-12:15 PARALLEL SESSION 3

SCIENTIFIC EVIDENCE

Le Sirius Room

Paleoclimatic Modelling: An Approach to Paleoclimate in Central Java, Indonesia, Based on Foraminifera Fossil Assemblage

Hafizh Zakyan, Padjadjaran University, Indonesia — Julia Satriani Padjadjaran University, Indonesia — M Nurisman Syarif — Padjadjaran University, Indonesia

The identification and analysis of temperature changes based on foraminifera fossil assemblages age ranging from Eocene–Oligocene–Miocene as the implication of climate changes in one of the tropical area.

Spatio-temporal Trends in Rainfall Variability and the El Niño Southern Oscillation in Mauritius

Caroline G. Staub, University of Florida, United States — Peter R. Waylen, University of Florida, United States

Annual precipitation totals in Mauritius are used to characterize the spatial and temporal variability of annual precipitation patterns and their response to underlying regional and global forcing from 1915-2009.

A Poisson Regression Analysis of Effect of Climate Change Adaptation on Food Insecurity among Smallholder Farmers in West Africa

Prof. Abayomi Samuel Oyekale, North-West University Mafikeng Campus, South African

Overview: The effects of climate change adaptation on food insecurity were analyzed. Data were collected from Burkina Faso, Ghana, Mali, Niger and Senegal. Poisson regression was used for data analysis.

11:25-12:15 PARALLEL SESSION 3

AGRICULTURE AND THE IMPACTS OF CHANGE

La Bellone Room

Impacts of Climate Change on Supply Response for Maize in Kenya: Evidence from Cointegration Analysis

Dr. Rakhal Sarker, University of Guelph, Canada — Dr. Jonathan Nzuma, University of Nairobi, Kenya — Shashini Ratnasena, University of Guelph, Canada

Maize is the most important staple in Kenya. This paper attempts to determine the impacts of climate change on maize production in Kenya.

Priority Assessment of Climate Change Adaptation and Mitigation Strategies: Application of Analytical Hierarchy Process Modelling

Prof. Nazrul Islam, University of the Sunshine Coast/Sustainability Research Centre, Australia — Dr. Nasir Uddin, Sunshine Coast University, Australia — Dr. Angela Wardell-Johnson, University of the Sunshine Coast, Australia Dr. Tanmoy Nath, Australia

This study assesses priority rankings of climate change adaptation and mitigation strategies and provide important information to food industry stakeholders for strategic interventions in regional food security in Australia.

Strategic Interventions to Manage Climate Change for Food Security: Modelling for Best Fit Using Evidence of Horticulture and Dairy in Australia

Dr. Nasir Uddin, Sunshine Coast University, Australia — Dr. Angela Wardell-Johnson, University of the Sunshine Coast, Australia — Prof. Nazrul Islam, University of the Sunshine Coast/Sustainability Research Centre, Australia — Dr. Tanmoy Nath, Australia

This study used a number of scenarios to provide evidence of the links between CC risks, adaptive capacities, and adaptation/mitigation strategies for strategic interventions in the food security of Australia.

GAS EMISSIONS: IMPLICATIONS

Le Laverdy Room

A Carbon Budget Method Based on GIS

Anand Sookun, University of Mauritius, Mauritius

A geostatistical method adapted to GIS has been developed to account for the terrestrial carbon budget which involve carbon emissions net of carbon uptakes by plants and soil.

Energy Labeling and Residential House Prices: Some Evidence from the United Kingdom

Prof. Pat McAllister, University College London, United Kingdom — Dr. Anupam Nanda, University of Reading, United Kingdom — Prof. Peter Wyatt, University of Reading, United Kingdom — Dr. Franz Fuerst, University of Cambridge, United Kingdom

This paper outlines the results of the first large-scale empirical analysis of the effects of certificates on energy performance on residential property prices in England and Wales.

Ocean Acidification: A Major Threat?

Diyashvir Kreetee Rajiv Babajee, African Network for Policy Research & Advocacy for Sustainability, Mauritius, Mauritius — Dr. Gowtam Raj Chintaram, ANPRAS, Mauritius

We use a global CO₂ model to make predictions of the pH of oceans in 2100 for 5 cases based on possible measures to reduce CO₂ emissions.

11:25-12:15 PARALLEL SESSION 3

POLICY AND PARADOX

La Magicienne Room

The Contribution of Tourism Mobility to Climate Change: The Case for Mauritius

Toshima Makoondlall-Chadee, University of Technology, Mauritius, Mauritius — Dr. Chandradeo Bokhoree, University of Technology, Mauritius, Mauritius — Yashna Beeharry, Mauritius — Prof. John Fletcher, University of Bournemouth, United Kingdom

Increase in tourist arrivals and departures imply more traveling be it air or inland. These traveling modes have a negative impact on the environment-emissions of Carbon Dioxide CO2).

Mauritius Island's Visiting Tourists Perceptions of Climate Change

Toshima Makoondlall-Chadee, University of Technology, Mauritius, Mauritius — Dr. Chandradeo Bokhoree, University of Technology, Mauritius, Mauritius — Prof. John Fletcher, University of Bournemouth, United Kingdom

Measuring the level of awareness of tourists towards climate change and assessing contributions towards mitigating same is essential. Visiting tourists and hotel operator's perceptions towards climate change mitigation were studied.

The Paradoxical Brazilian Official Policies on Climate Change: Hydroelectric Energy, Agrofuel and Land Use Change in the Amazon, 1992-2012

Prof. Ricardo M. Figueiredo F., University Of Minas Gerais, Brazil

In this paper, policies on climate change and energy production will be contextualized by the Brazilian Governments discourses in domestic and international arenas.

12:15-13:45

LUNCH

13:45-15:25 PARALLEL SESSION 4

COLLOQUIUM

Le Sirius Room

The Inter-sectoral Impact Model Intercomparison Project: Impacts in a Warmer World

Dr. Lila Warszawski, The Potsdam Institute for Climate Impact Research, Germany — Dr. Katja Frieler The Potsdam Institute for Climate Impact Research, Germany — Dr. Franziska Pietenk The Potsdam Institute for Climate Impact Research, Germany — Dr. Jacob Schewe The Potsdam Institute for Climate Impact Research, Germany — Olivia Serdeczny The Potsdam Institute for Climate Impact Research, Germany

ISI-MIP brings together 35 impact models internationally across five sectors (agriculture, water, natural ecosystems, health, and coastal infrastructure) to systematically quantify the impacts of different levels of global warming.

13:45-15:25 PARALLEL SESSION 4

POLICIES AND PROGRAMS: CLIMATE CHANGE

La Bellone Room

Bargaining for Nature in China's Urban Planning Practice: Insights from the Tianjin Eco-City Project

Assoc. Prof. Jiang Xu, The Chinese University of Hong Kong, China

This presentation uses Tianjin Eco-City Planning as an example to illustrate how Chinese urban planners bargain for ecological value of spaces under the great pressure to commodify urban spaces.

Capital and Climate Change: Evaluating Capacity for Strategic Intervention

Dr. Angela Wardell-Johnson, University of the Sunshine Coast, Australia — Dr Nasir Uddin, Sunshine Coast University, Australia — Prof. Nazrul Islam, University of the Sunshine Coast/Sustainability Research Centre, Australia — Dr. Tanmoy Nath, Australia — Brian Richard Stockwell, Department of State Development Infrastructure and Planning, Australia

This research used a framework of seven capitals represented Triple Bottom Line values to test capacity to implement climate change intervention strategies through identified risk scenarios.

Domestic Policy Commitments to International Climate and Sustainability Agreements: The Role of Employer Organisations and Trade Unions

Peter J. Glynn, Bond University, Australia — Prof. Ros Taplin, University of New South Wales, Australia

While domestic policy overtly reflects international climate agreements, the economic and social elements of the agreements are less obvious but are nevertheless embedded in the policy framework.

SOCIETAL IMPACTS OF CLIMATE CHANGE

Le Laverdy Room

An Analysis of Climate Dependent Infectious Diseases: A Case Study of Chennai

Divya Subash Kumar, Anna University, India — Dr. Ramachandran Andimuthu, Faculty/Anna University, India

The data on some of the climate sensitive infectious diseases have been assessed to understand the conducive ranges of temperature and relative humidity for each of these diseases.

Climate-induced Migration: Lessons from Bangladesh

Prof. Jon Kellett, University of South Australia, Australia — Reazul Ahsan, Australia — Dr. Sadasivam Karuppanan, University of South Australia, Australia

Using Bangladesh as a case study, this paper examines the drivers of migration, the impacts of climate-induced migration on individual and family livelihoods, and subsequent effects on urbanization.

SOCIETAL IMPACTS OF CLIMATE CHANGE (CONTINUED)

Le Laverdy Room

Exploring the Health Effects of a Subtly Changing Climate: Risk and Vulnerability to Ross River Virus in Tasmania, Australia

Dr. Anna Lyth, University of Tasmania and University of the Sunshine Coast (USC), Australia — Assoc. Prof. Neil Holbrook, University of Tasmania, Australia

This paper discusses a regional investigation of vulnerability to the mosquito-borne disease Ross River virus in Tasmania, Australia, where climate change effects are likely to be relatively subtle.

Thermal-induced Pavement Buckling in Heatwaves

Prof. Mark Bradford, The University of New South Wales, Australia

This study presents results of scientific modeling of upheaval buckling of concrete pavements subjected to elevated temperatures, as occurs in heatwaves. Buckling compromises safe travel and is being reported increasingly.

13:45-15:25 PARALLEL SESSION 4

DIVERGENT PHENOMENA

La Magicienne Room

Adaptation or Transformation: Managing Refugia after Forty Years of Hydrological Change in Australian Forest Ecosystems

Assoc. Prof. Grant Wardell-Johnson, Curtin University, Australia

Refugia are habitats where species can contract to, persist in and expand from as regional climates change. They may facilitate persistence and are therefore critical for climate change adaptation management.

Lay Perceptions of Climate Change and Climate Change Impacts

Dr. Mohammad Zahirul Islam, Griffith University, Australia — Prof. Cordia Chu, Centre for Environment and Population Health, School of Environment, Griffith University, Australia — Dr. Shannon Rutherford, Centre for Environment and Population Health, School of Environment, Griffith University, Australia — Assoc. Prof. Scott Baum, Griffith University, Australia

This study represents an early exploration of lay perceptions among illiterate and more educated populations in one of the most climate change-sensitive nations in the world, Bangladesh.

An Overview of Climate Change in Nigeria: History, Evidences, Impacts and Mitigation

Dr. Idris Zakariyya Kiri, Jigawa State College of Education, Nigeria — Abba Sabo, Jigawa State College of Education, Nigeria

This paper establishes evidence for climate change in Nigeria. It further examines causes and impacts of climate change on health, agricultural and economic activities in Nigeria.

Evaluating the Impacts of Elevation on Precipitation Interpolation and Hydrological Modeling: The Heihe River Watershed, Northwest China

Prof. Chansheng He, Lanzhou University, China — Dr. Lanhui Zhang, Lanzhou University, China — Jie Tian, Lanzhou University, China

This paper adapts the distributed large basin runoff model to the Heihe River Watershed, the second largest inland river in China.

15:30-16:15

TALKING CIRCLE 2 & CONFERENCE CLOSING

GRADUATE SCHOLARS

Graduate scholars contribute to the flow and overall success of the conference. Their key responsibilities include chairing the parallel sessions, keeping the conference on schedule, providing audio-visual technical assistance and assisting with the registration process.

We would like to thank the following Graduate Scholars who participated in the Climate Change Conference:

MOSES H. AKUNO

Moses H. Akuno is a Msc. candidate at the United Nations University- Institute for Sustainability, Development and Peace in Tokyo, Japan. His area of focus is climate change and conflict as well as international peace and security. Areas of previous research of interest accomplished and undergoing include inclusion of indigenous and traditional knowledge on ecosystem and biodiversity conservation into scientific platforms (IPBES) and to develop information communication technology systems for building resilience to vulnerable disaster prone populations (planned for Vietnam). In East Africa, he is interested in research touching on conflict, peace building, governance and natural disasters- desertification, drought, famine and migration etc. He is also interested in urban vulnerable communities, refugees and finding sustainable solutions, justice, policy and advocacy for relevant areas of interest. He holds a Bachelors of Arts in Political Science, Post Graduate Diploma in Public Health Specializing in Control & Management of HIV/AIDS. He has worked on Humanitarian Affairs - cross border conflict and urban vulnerability, Disaster Risk Reduction and Humanitarian Policy and Advocacy.

EMILY FROST

Emily Frost is currently undertaking a master's of science which incorporates both zoology and marine biology. She will be primarily looking at the impact of ocean acidification on the ion-regulation physiology, general physiology and ion-regulation genetics on an Antarctic (*Sterechinus neumayeri*), tropical and temperate (*Evechinus chloroticus*) sea urchin species (Echinodermata; Echinoidea). This comparative project will establish the vulnerability of each species and how these species differ in adaptive ability to such climate change stressors. This project will be supervised in collaboration with the Zoology (Mark Lokman) and Marine Science (Miles Lamare) departments. In consideration to long-term aspirations, she is working towards a research and academic career, primarily aiming to work within a university as a lecturer and research fellow. She strives to continue to work within the environmental (climate change) physiology field, hopefully basing herself around marine invertebrates (especially within the phylum Echinodermata) or marine teleosts across the globe.

DIVYA SUBASH KUMAR

Divya Subash Kumar is pursuing her Ph.D at the Centre for Climate Change and Adaptation Research, Anna University, Chennai, Tamil Nadu, India. Her research interest is in "Climate Change Impacts on Communicable Diseases". She has published a review article entitled "Climate Change and Emerging Infectious Diseases: A review to establish the link" in the journal *Ecology, Environment and Conversation*. She has also presented a paper entitled "Effect of climate variables on dengue in five selected districts of Tamil Nadu" at the International Conference on Green Technologies for Sustainable Future." She has participated in two spring schools this year – Highnoon Spring School at Delhi, India and Spring School on Modeling Tools and Capacity Building in Climate and Public Health at The International Centre for Theoretical Physics, Trieste, Italy. She has also attended a workshop on "Modelling Infectious Diseases" in Chennai. The focus of her research is to develop an early warning system for all the communicable diseases of Chennai under a climate changed scenario. Her work involves statistical and social studies of diseases like dengue, malaria and cholera. She has completed a Masters in Environmental Science and a Bachelor's degree in Botany. Her area of interest also includes understanding the climate variability and its implications in urban areas.

ANAND SOOKUN

Anand Sookun is a researcher at the University of Mauritius studying for his MPhil/PhD on a part time basis. His research is entitled "A Geo-statistical and GIS based approach to study the carbon budget and carbon footprint for Mauritius". The main focus of his study is drivers of climate change that are greenhouse gases (GHGs), especially from energy use and the sequestrations by land cover types. Therefore modeling of energy, climate change related variables, some econometric and environmetric analysis as well as geo-spatial analysis are of special interest in his study. He is a statistician qualified from the Royal Statistical Society (RSS) – UK and is currently working on Environment-Economic Accounting at Statistics Mauritius. Anand has also worked at international level for short term assignments such as for the United Nations Department of Economic and Social Affairs (UNDESA), the International Atomic Energy Agency (IAEA) and the International Water Management Institute (IWMI). He is a member of the Expert Review Team for reviewing national GHG inventories of Annex I Parties at the United Nations Convention on Climate Change (UNFCCC). He is also a member of the Expert Group for the revision of the Framework for the Development of Environment Statistics at the UN Statistics Division. He was a reviewer for the Global Environment Outlook (GEO 5) for United Nations Environment Programme (UNEP). He is also a member of The International Environmetric Society (TIES), the International Association of Official Statistics and the International Statistical Institute. He is also involved in reviewing the Intergovernmental Panel on Climate Change (IPCC) guidelines on national GHG inventories.

CAROLINE STAUB

Caroline Staub is a doctoral student in the Department of Geography at the University of Florida (UF) in Gainesville, Florida. She is a physical geographer, and her focus is on water availability on small islands. More particularly, she is interested in understanding the linkages between climate, anthropogenic pressure and water availability on small, densely populated islands over time. Her current study site is the southwest Indian Ocean island of Mauritius. Her goal is to help optimize water resource management through an improved understanding of water supply and demand on Mauritius and surrounding small Indian Ocean islands over time. Aside from her Ph.D, she is pursuing concentrations in Tropical Conservation and Development (TCD) through UF's TCD Program, and Geographic Information Systems through the UF Interdisciplinary Concentration in Geographic Information Systems (IGIS). She is affiliated with the UF Quantitative Spatial Ecology, Evolution, and Environment Integrative Graduate Education Research Traineeship (QSE3 IGERT) program, Center for African Studies and the Land Use and Environmental Change Institute. Prior to her Ph.D, Caroline completed an MSc in Geography at the University of Florida, and a BSc (Hons) in Environmental Biology at Curtin University of Technology in Perth, Western Australia. Between college and graduate school, Caroline volunteered as a research scientist for African Parks Network at Majete Wildlife Reserve, where she contributed to the habitat management strategy for the park.

INTERNATIONAL ADVISORY BOARD

- **Alison Anderson**, Head of Sociology/Social Policy Study Group, University of Plymouth, Plymouth, UK
- **Erach Bharucha**, Bharati Vidyapeeth Univeristy, Pune, India
- **Tapan Chakrabarti**, National Environmental Engineering Research Institute (NEERI), Nagpur, India
- **Amaeswar Galla**, Executive Director, International Institute for the Inclusive Museum, Paris, Chicago, Sydney and Hyderabad
- **Thomas Krafft**, Geomed Research Corporation, Bad Honnef, Germany
- **R. Mehta**, Ministry of Environment and Forests, Government of India, New Delhi, India
- **Gordon Wilson**, The Open University, UK
- **Zhihua Zhang**, Research Professor & Senior Scientist, College of Global Change & Earth System Sciences & Deputy Director of Polar Climate & Environment Key Laboratory, Beijing Normal University, China

LIST OF PARTICIPANTS

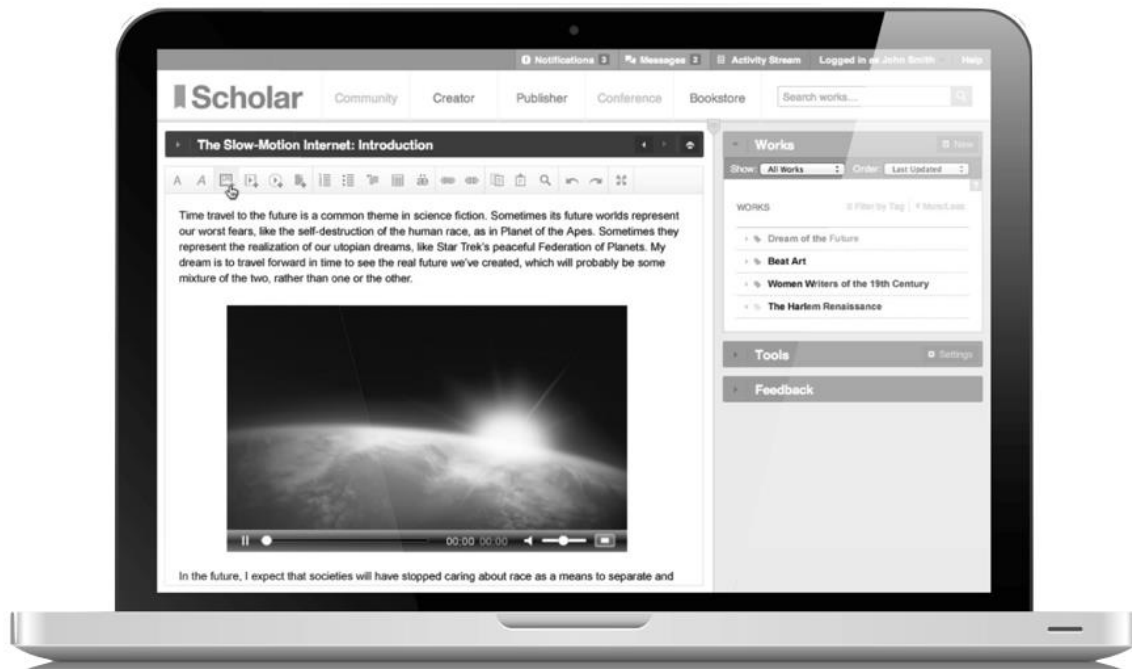
Moses Hillary	Akuno	UN University Institute for Sustainability and Peace	Japan
Cecilia	Amoah	Ghana Forestry Commission	Ghana
Alison	Anderson	University of Plymouth	UK
Graham	Ashford	The University of the Sunshine Coast	Australia
Diyashvir Kreetee Rajiv	Babajee	ANPRAS	Mauritius
Mark	Bradford	The University of New South Wales	Australia
Aikilananda	Chellpaermal	CEDREFI	Mauritius
Yongqin	Chen	Chinese University of Hong Kong	Hong Kong
Huopo	Chen	Institute of Atmospheric Physics	China
Gowtam Raj	Chintaram	ANPRAS	Mauritius
Danielle	Clode	Flinders University	Australia
Mokshanand	Dowarkasing	Senior Advisor to the Prime Minister of Mauritius	Mauritius
Shireen	Fahey	University of the Sunshine Coast	Australia
Ricardo M.	Figueiredo F.	University Of Minas Gerais	Brazil
Katja	Frieler	The Potsdam Institute for Climate Impact Research	Germany
Emily Joy	Frost	University of Otago	New Zealand
Ya	Gao	Institute of Atmospheric Physics	China
Peter J.	Glynn	Bond University	Australia
David	Goodfield	Murdoch University	Australia
Vanessa GB	Gowreesunkar	University of Technology, Mauritius	Mauritius
Chansheng	He	Lanzhou University	China
Neil	Holbrook	University of Tasmania	Australia
Candice	Howarth	Anglia Ruskin University	UK
Mohammad Zahirul	Islam	Griffith University	Australia
Nazrul	Islam	University of the Sunshine Coast/Sustainability Research Centre	Australia
Laura	Jeffery	University of Edinburgh	UK
Jon	Kellett	University of South Australia	Australia
Idris Zakariyya	Kiri	Jigawa State College of Education	Nigeria
Yee	Leung	The Chinese University of Hong Kong	China
Jayveer Kumar	Lobin	ANPRAS	Mauritius
Anna	Lyth	University of Tasmania and University of the Sunshine Coast	Australia
Jiehua	Ma	Institute of Atmospheric Physics	China
Toshima	Makoondlall-Chadee	University of Technology, Mauritius	Mauritius
Lawal Mohammed	Marafa	The Chinese University of Hong Kong	China
Warda	Mohungoo	ANPRAS	Mauritius
Saleem	Mustafa	Universiti Malaysia Sabah	Malaysia
Udaya Sekhar	Nagothu	The Norwegian Institute for Agricultural and Environmental Research, Bioforsk	Norway
Anupam	Nanda	University of Reading	UK
Sarita	Nuckcheddee	ANPRAS	Mauritius
Andy Osei	Okrah	Forestry Commission of Ghana	Ghana
Abayomi Samuel	Oyekale	North-West University Mafikeng Campus	South Africa
Balachandra	Patil	Indian Institute of Science	India
Yogshresth	Sabandy	ANPRAS	Mauritius

2013 Climate Change Conference

Abba	Sabo	Jigawa State College of Education	Nigeria
Louis Clarel	Salomon	ANPRAS	Mauritius
Rakhil	Sarker	University of Guelph	Canada
Julia	Satriani	Padjadjaran University	Indonesia
Jacob	Schewe	The Potsdam Institute for Climate Impact Research	Germany
Olivia	Serdeczny	The Potsdam Institute for Climate Impact Research	Germany
Mordechai	Shechter	Interdisciplinary Center (IDC) Herzliya	Israel
Anand	Sookun	University of Mauritius	Mauritius
Caroline G.	Staub	University of Florida	USA
Divya	Subash Kumar	Anna University	India
M Nurisman	Syarif	Padjajaran University	Indonesia
Alan H.	Teramura	University of Hawaii at Manoa	USA
Dandini	Thondrayen	ANPRAS	Mauritius
Kirti Rukmani Devi	Tohul	ANPRAS	Mauritius
Micha	Tomkiewicz	Brooklyn College of CUNY	USA
Anastasios	Tsonis	University of Wisconsin-Milwaukee	USA
Jun	Wang	IAP	China
Tao	Wang	Institute of Atmospheric Physics	China
Grant	Wardell-Johnson	Curtin University	Australia
Angela	Wardell-Johnson	University of the Sunshine Coast	Australia
Lila	Warszawski	The Potsdam Institute for Climate Impact Research	Germany
Jiang	Xu	The Chinese University of Hong Kong	China
EnTao	Yu	Institute of Atmospheric Physics	China
Hafizh	Zakyan	Padjadjaran University	Indonesia
Zhihua	Zhang	Beijing Normal University	China

SCHOLAR: A SOCIAL KNOWLEDGE PLATFORM

Create Your Academic Profile and Connect to Peers



Developed by our brilliant Common Ground software team. Scholar connects academic peers from around the world in a space that is modulated for serious discourse and the presentation of knowledge works.

Utilize your free Scholar membership today through:

- Building your **academic profile** and list of published works.
- Joining a community with a **thematic or disciplinary focus**.
- Establishing a new knowledge community **relevant to your field**.
- Creating **new academic work** in our innovative publishing space.
- Building a **peer review network** around your work or courses.

Scholar quick start guide:

- 1) Navigate to <http://cgscholar.com>. Select [**Sign Up**] below 'Create an Account'.
- 2) Enter a "**blip**" (a very brief one-sentence description of yourself).
- 3) Click on the "**Find and join communities**" link located under the YOUR COMMUNITIES heading (On the left hand navigation bar).
- 4) Search for a community to join or create your own.

Scholar next steps – build your academic profile:

- **About:** Information about yourself, including a linked **CV** in the top, dark blue bar.
- **Interests:** Searchable information so others with similar interests can locate you.
- **Peers:** Invite others to connect as a peer and keep up with their work.
- **Shares:** Make your page a comprehensive portfolio of your work by adding publications in the Shares area - be these full text copies of works in cases where you have permission, or a link to a bookstore, library or publisher listing. If you choose Common Ground's hybrid open access option, you may post the final version of your work here, available to anyone on the web if you select the 'make my site public' option.
- **Image:** Add a photograph of yourself to this page; hover over the temporary avatar and you will see a little pencil/edit icon to select.
- **Publisher:** All Common Ground community members have free access to our peer review space for their courses. Here they can arrange for students to write multimodal essays or reports in the Creator space (including image, video, audio, dataset or any other file), manage student peer review, co-ordinate assessments, and share students' works by publishing them to the Community space.

Scholar

A Digital Learning Platform

Use Scholar to Support Your Teaching

Scholar is a social knowledge platform that **transforms the patterns of interaction in learning by putting students first**, positioning them as knowledge producers instead of passive knowledge consumers. Scholar provides scaffolding to encourage making and sharing knowledge drawing from multiple sources rather than memorizing knowledge that has been presented to them.

Scholar also answers one of the most fundamental questions students and instructors have of their performance, "How am I doing?" Typical modes of assessment often answer this question either too late to matter or in a way that is not clear or comprehensive enough to meaningfully contribute to better performance.

A collaborative research and development project between Common Ground and the College of Education at the University of Illinois, Scholar contains a knowledge community space, a multimedia web writing space, a formative assessment environment that facilitates peer review, and a dashboard with aggregated machine and human formative and summative writing assessment data.

The following Scholar features are only available to Common Ground Knowledge Community members as part of their membership. Please email us at support@cgscholar.com if you would like the complimentary educator account that comes with participation in a Common Ground conference.

- Create projects for groups of students, involving draft, peer review, revision and publication.
- Publish student works to each student's personal portfolio space, accessible through the web for class discussion.
- Create and distribute surveys.
- Evaluate student work using a variety of measures in the assessment dashboard.

Scholar is a generation beyond learning management systems. It is what we term a **Digital Learning Platform**, it transforms learning by engaging students in powerfully horizontal 'social knowledge' relationships.

For more information, visit: www.learning.cgscholar.com.