Eighth International Conference on

# Climate Change: Impacts & Responses

Climate Change: A Knowledge and Resilience Community – Proactive Responses and Risk Management

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# **Eighth International Conference on Climate Change: Impacts & Responses**

"Climate Change: A Knowledge and Resilience Community – Proactive Responses and Risk Management"

VNU University of Science (HUS), Vietnam National University (VNU)
Hanoi, Vietnam
21–22 April 2016







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#### Eighth International Conference on Climate Change: Impacts & Responses

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Designed by Ebony Jackson Cover image by Phillip Kalantzis-Cope



Dear Climate Change: Impacts & Responses Delegates,

Welcome to Hanoi and to the Eighth International Conference on Climate Change: Impacts & Responses. The Climate Change: Impacts & Responses Knowledge Community—its conference, journal, and book imprint—was created to explore scientific, policy, and strategic perspectives on the impacts of, and responses to, climate change.

Founded in 2009, the International Conference on Climate Change: Impacts & Responses aims to create an interdisciplinary forum for the discussion of climate change, its causes, its eco-systemic impacts, and its human impacts. The conference also explores technological, policy, strategic, and social responses to climate change. The inaugural Climate Change: Impacts & Responses Conference was held at the Bharati Vidyapeeth Institute of Environment Education and Research in Pune, India, in 2009. The conference has since been hosted at the University of Queensland, Brisbane, Australia, in 2010; in Rio de Janeiro, Brazil, in 2011; the University of Washington, Seattle, USA, in 2012; Port-Louis, Mauritius, in 2013; the University of Iceland, Reykjavik, Iceland, in 2014; and the University of British Columbia-Robson Square, Vancouver, Canada, in 2015. Next year, we are honored to hold the conference in partnership with the Global Sustainability Institute (GSI) at Anglia Ruskin University in Cambridge, UK, 21-22 April 2017.

Conferences can be ephemeral spaces. We talk, learn, get inspired, but these conversations fade with time. This Knowledge Community supports a range of publishing modes in order to capture these conversations and formalize them as knowledge artifacts. We encourage you to submit your research to *The International Journal of Climate Change: Impacts & Responses*. We also encourage you to submit a book proposal to the Climate Change: Impacts & Responses Book Imprint.

In partnership with our Editors and Community Partners the Climate Change: Impacts & Responses Knowledge Community is curated by Common Ground Publishing. Founded in 1984, Common Ground Publishing is committed to building new kinds of knowledge communities, innovative in their media and forward thinking in their messages. Common Ground Publishing takes some of the pivotal challenges of our time and builds knowledge communities which cut horizontally across legacy knowledge structures. Sustainability, diversity, learning, the future of humanities, the nature of interdisciplinarity, the place of the arts in society, technology's connections with knowledge, the changing role of the university—these are deeply important questions of our time which require interdisciplinary thinking, global conversations, and cross-institutional intellectual collaborations. Common Ground is a meeting place for people, ideas, and dialogue. However, the strength of ideas does not come from finding common denominators. Rather, the power and resilience of these ideas is that they are presented and tested in a shared space where differences can meet and safely connect—differences of perspective, experience, knowledge base, methodology, geographical or cultural origins, and institutional affiliation. These are the kinds of vigorous and sympathetic academic milieus in which the most productive deliberations about the future can be held. We strive to create places of intellectual interaction and imagination that our future deserves.

I want to thank our Conference Chairs and Local Committee at VNU University of Science (HUS), Vietnam National University, Hanoi (VNU), who have poured such a phenomenal amount of work into this conference, including Professor Phan Tuan Nghia, Professor Do Minh Duc, Professor Thanh Ngo-Duc, and Ms. Nguyen Minh Hien. I'd also like to thank my Climate Change: Impacts & Responses Knowledge Community colleagues, Stephanie Ebersohl and Kimberely D. Kendall, who have put such a significant amount of work into this conference.

We wish you all the best for this conference, and we hope it will provide you every opportunity for dialogue with colleagues from around the corner and around the globe.

Yours sincerely,

Dr. Phillip Kalantzis-Cope

Director, Common Ground Publishing





#### **Our 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.

#### **Our Message**

Heritage knowledge systems are characterized by vertical separations—of discipline, professional association, institution, and country. Common Ground identifies some of the pivotal ideas and challenges of our time and builds knowledge communities that cut horizontally across legacy knowledge structures. Sustainability, diversity, learning, the future of the humanities, the nature of interdisciplinarity, the place of the arts in society, technology's connections with knowledge, the changing role of the university—these are deeply important questions of our time which require interdisciplinary thinking, global conversations, and cross-institutional intellectual collaborations. Common Ground is a meeting place for these conversations, shared spaces in which differences can meet and safely connect—differences of perspective, experience, knowledge base, methodology, geographical or cultural origins, and institutional affiliation. We strive to create the places of intellectual interaction and imagination that our future deserves.

#### **Our Media**

Common Ground creates and supports knowledge communities through a number of mechanisms and media. Annual conferences are held around the world to connect the global (the international delegates) with the local (academics, practitioners, and community leaders from the host community). Conference sessions include as many ways of speaking as possible to encourage each and every participant to engage, interact, and contribute. The journals and book imprint offer fully-refereed academic outlets for formalized knowledge, developed through innovative approaches to the processes of submission, peer review, and production. The knowledge community also maintains an online presence—through presentations on our YouTube channel, monthly email newsletters, as well as Facebook and Twitter feeds. And Common Ground's own software, **Scholar**, offers a path-breaking platform for online discussions and networking, as well as for creating, reviewing, and disseminating text and multi-media works.



## Climate Change: Impacts & Responses Knowledge Community

Exploring scientific, policy, and strategic perspectives on the impacts of, and responses to, climate change

The Climate Change: Impacts & Responses Knowledge Community is brought together around a common concern for the science of, and social responses to, climate change. The community interacts through an innovative, annual face-to-face conference, as well as year-round online relationships, a family of peer reviewed journals, and book imprint—exploring the affordances of the new digital media.

#### **Conference**

The Climate Change: Impacts & Responses Conference is built upon four key features: Internationalism, Interdisciplinarity, Inclusiveness, and Interaction. Conference delegates include leaders in the field as well as emerging scholars, who travel to the conference from all corners of the globe and represent a broad range of disciplines and perspectives. A variety of presentation options and session types offer delegates multiple opportunities to engage, to discuss key issues in the field, and to build relationships with scholars from other cultures and disciplines.

#### **Publishing**

The Climate Change: Impacts & Responses Knowledge Community enables members to publish through two media. First, community members can enter a world of journal publication unlike the traditional academic publishing forums—a result of the responsive, non-hierarchical, and constructive nature of the peer review process. *The International Journal of Climate Change: Impacts and Responses* provides a framework for double-blind peer review, enabling authors to publish into an academic journal of the highest standard. The second publication medium is through the book imprint, Climate Change: Impacts & Responses, publishing cutting edge books in print and digital formats. Publication proposals and manuscript submissions are welcome.

#### **Community**

The Climate Change: Impacts & Responses Knowledge Community offers several opportunities for ongoing communication among its members. Any member may upload video presentations based on scholarly work to the community YouTube channel. Monthly email newsletters contain updates on conference and publishing activities as well as broader news of interest. Join the conversations on Facebook and Twitter. Or explore our new social media platform, **Scholar**.

#### **Community Partner**

#### International Institute for the Inclusive Museum (iiiM)

International Institute for the Inclusive Museum (iiiM) is a not-for-profit that subsumes the Pacific Asia Observatory for Cultural Diversity in Human Development established in 2004 as part of the Action Plan of the UNESCO Universal Declaration on Cultural Diversity (2001). It brings together clusters of research and capacity building institutions along with arts, museums, heritage and environmental agencies across the world. The criteria for participation includes demonstrated commitment to the ICOM Code of Ethics (2004); ICOM Cultural Diversity Charter (2010); and the Soft and Hard Law Instruments of UNESCO.

Networking all over the world and with active engagement through social media, the iiiM platform enhances constructive exchanges across knowledge communities and promotes state of the art online research, learning, and teaching systems. A strategic partner with the prestigious Common Ground Publishing, iiiM is driven by UN Sustainable Development Goals as defined in Transforming Our World - the 2030 Agenda for Sustainable Development.



What is evidence is there of climate change?

#### **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 disequilbria: 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

What are the impacts of climate change on natural environments?

#### **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



What evidence is there that human activity has contributed to climate change, and what are the impacts of climate change on human life?

How do scientists, technologies, policy

makers, and community

members respond to

climate change?

#### **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: "corridoring" 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

#### **Climate Change: The Evidence**

#### What is to be done?

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**

#### What are the impacts on ecosystems, communities, species and genetic diversity?

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. Thus, there is 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.

#### **Human Impacts**

#### How have we been agents of climate change? How will we be impacted by climate change?

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.

#### **Framing Responses**

#### How do we impact the future course of natural history?

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 though 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 social and political acts 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 the 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.



#### **About**

The Climate Change: Impacts & Responses Knowledge Community is dedicated to the concept of independent, peer-led groups of scholars, researchers, and practitioners working together to build bodies of knowledge related to topics of critical importance to society at large. Focusing on the intersection of academia and social impact, the Climate Change: Impacts & Responses Knowledge Community brings an interdisciplinary, international perspective to discussions of new developments in the field, including research, practice, policy, and teaching.

#### **Membership Benefits**

As a Climate Change: Impacts & Responses Knowledge Community member you have access to a broad range of tools and resources to use in your own work:

- Digital subscription to The International Journal of Climate Change: Impacts and Responses for one year.
- · Digital subscription to the book imprint for one year.
- One article publication per year (pending peer review).
- Participation as a reviewer in the peer review process, with the opportunity to be listed as an Associate Editor after reviewing three or more articles.
- Subscription to the community e-newsletter, providing access to news and announcements for and from the knowledge community.
- Option to add a video presentation to the community YouTube channel.
- Free access to the **Scholar** social knowledge platform, including:
  - Personal profile and publication portfolio page
  - Ability to interact and form communities with peers away from the clutter and commercialism of other social media
  - Optional feeds to Facebook and Twitter
  - Complimentary use of **Scholar** in your classes—for class interactions in its Community space, multimodal student writing in its Creator space, and managing student peer review, assessment, and sharing of published work



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#### **Present and Participate in the Conference**

You have already begun your engagement in the community by attending the conference, presenting your work, and interacting face-to-face with other members. We hope this experience provides a valuable source of feedback for your current work and the possible seeds for future individual and collaborative projects, as well as the start of a conversation with community colleagues that will continue well into the future.

#### **Publish Journal Articles or Books**

We encourage you to submit an article for review and possible publication in the journal. In this way, you may share the finished outcome of your presentation with other participants and members of the community. As a member of the community, you will also be invited to review others' work and contribute to the development of the community knowledge base as an Associate Editor. As part of your active membership in the community, you also have online access to the complete works (current and previous volumes) of the journal and to the book imprint. We also invite you to consider submitting a proposal for the book imprint.

#### **Engage through Social Media**

There are several ways to connect and network with community colleagues:



Email Newsletters: Published monthly, these contain information on the conference and publishing, along with news of interest to the community. Contribute news or links with a subject line 'Email Newsletter Suggestion' to support@on-climate.com.

- Scholar: Common Ground's path-breaking platform that connects academic peers from around the world in a space that is modulated for serious discourse and the presentation of knowledge works.
- Facebook: Comment on current news, view photos from the conference, and take advantage of special benefits for community members at: http://www.facebook.com/OnClimate.
- Twitter: Follow the community @onclimate and talk about the conference with #ICCCIR16.
- YouTube Channel: View online presentations or contribute your own at http://commongroundpublishing.com/support/uploading-your-presentation-to-youtube.



The principal role of the Advisory Board is to drive the overall intellectual direction of the Climate Change: Impacts & Responses Knowledge Community and to consult on our foundational themes as they evolve along with the currents of the field. Board members are invited to attend the annual conference and provide important insights on conference development, including suggestions for speakers, venues, and special themes. We also encourage board members to submit articles for publication consideration to *The International Journal of Climate Change: Impacts and Responses* as well as proposals or completed manuscripts to the Climate Change Book Imprint.

We are grateful for the continued service and support of the following world-class scholars and practitioners.

- · Alison Anderson, University of Plymouth, Plymouth, UK
- Tapan Chakrabarti, Chairman, Department of Biotechnology Task Force on Biodiversity Conservation and Environment, National Environmental Engineering Research Institute (NEERI), Nagpur, India
- · Gowtam Raj Chintaram, Executive Chairman, ANPRAS / Earth-Mauritius, Port Louis, Mauritius
- Amar Galla, Executive Director, International Institute for the Inclusive Museum
- Candice Howarth, Global Sustainability Institute, Anglia Ruskin University, Cambridge, UK
- · Thomas Krafft, Geomed Research Corporation, Bad Honnef, Germany
- Mordechai Shechter, University of Haifa, Haifa, Israel
- Gordon Wilson, The Open University, Milton Keynes, UK
- · Zhihua Zhang, Deputy Director of Polar Climate and Environment Library, Beijing Normal University, Beijing, China





#### 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: Include information about yourself, including a linked CV in the top, dark blue bar.
- Interests: Create 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 avatar and click the 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.





#### **A Digital Learning Platform**

Use **Scholar** to Support Your Teaching

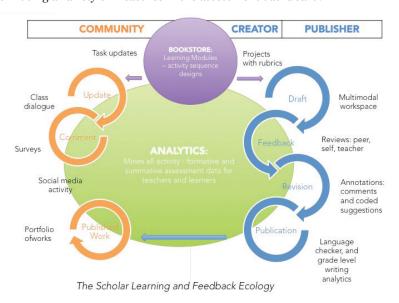
**Scholar** is a social knowledge platform that *transforms the patterns of interaction in learning by putting students first*, positioning them as knowledge producers instead of passive knowledge consumers. **Scholar** provides scaffolding to encourage making and sharing knowledge drawing from multiple 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: http://knowledge.cgscholar.com.** 



## Climate Change: Impacts & Responses Journal

Committed to being a definitive resource for discussions of evidence of climate change: its causes, its eco-systemic and human impacts, and strategic responses



### Indexing

CAB Direct

Environment Index (EBSCO) Environment Complete (EBSCO)

The Australian Research Council (ERA) Ulrich's Periodicals Index

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on-climate.com

#### **Bookstore:**

ijc.cgpublisher.com

#### **About**

The International Journal of Climate Change: Impacts and Responses seeks to create an interdisciplinary forum for discussion of evidence of climate change, its causes, its eco-systemic impacts, and its human impacts. The journal also explores technological, policy, strategic, and social responses to climate change.

The International Journal of Climate Change: Impacts and Responses is peer-reviewed, supported by rigorous processes of criterion-referenced article ranking and qualitative commentary, ensuring that only intellectual work of the greatest substance and highest significance is published.

#### **Editor**



**Candice Howarth**, Senior Research Fellow, Climate Action & Cultural Systems, Anglia Ruskin University, Cambridge, UK

#### **Associate Editors**

Articles published in *The International Journal of Climate Change: Impacts and Responses* are peer reviewed by scholars who are active members of the Climate Change: Impacts & Responses Knowledge Community. Reviewers may be past or present conference delegates, fellow submitters to the journal, or scholars who have volunteered to review papers (and have been screened by Common Ground's editorial team). This engagement with the knowledge community, as well as Common Ground's synergistic and criterion-based evaluation system, distinguishes the peer review process from journals that have a more top-down approach to refereeing. Reviewers are assigned to papers based on their academic interests and scholarly expertise. In recognition of the valuable feedback and publication recommendations that they provide, reviewers are acknowledged as Associate Editors in the volume that includes the paper(s) they reviewed. Thus, in addition to *The International Journal of Climate Change: Impacts and Responses* Editors and Advisory Board, the Associate Editors contribute significantly to the overall editorial quality and content of the journal.



#### **Journal Submission Process and Timeline**

Below, please find step-by-step instructions on the journal article submission process:

- 1. Submit a conference presentation proposal.
- Once your conference presentation proposal has been accepted, you may submit your article by clicking the "Add a
  Paper" button on the right side of your proposal page. You may upload your article anytime between the first and the final
  submission deadlines. (See dates below)
- 3. Once your article is received, it is verified against template and submission requirements. If your article satisfies these requirements, your identity and contact details are then removed, and the article is matched to two appropriate referees and sent for review. You can view the status of your article at any time by logging into your CGPublisher account at www. CGPublisher.com.
- 4. When both referee reports are uploaded, and after the referees' identities have been removed, you will be notified by email and provided with a link to view the reports.
- 5. If your article has been accepted, you will be asked to accept the Publishing Agreement and submit a final copy of your article. If your paper is accepted with revisions, you will be required to submit a change note with your final submission, explaining how you revised your article in light of the referees' comments. If your article is rejected, you may resubmit it once, with a detailed change note, for review by new referees.
- 6. Once we have received the final submission of your article, which was accepted or accepted with revisions, our Publishing Department will give your article a final review. This final review will verify that you have complied with the Chicago Manual of Style (16th edition), and will check any edits you have made while considering the feedback of your referees. After this review has been satisfactorily completed, your paper will be typeset and a proof will be sent to you for approval before publication.
- 7. Individual articles may be published "Web First" with a full citation. Full issues follow at regular, quarterly intervals. All issues are published 4 times per volume (except the annual review, which is published once per volume).

#### **Submission Timeline**

You may submit your article for publication to the journal at any time throughout the year. The rolling submission deadlines are as follows:

- Submission Round 1 15 January
- Submission Round 2 15 April
- Submission Round 3 15 July
- Submission Round 4 (final) 15 October

Note: If your article is submitted after the final deadline for the volume, it will be considered for the following year's volume. The sooner you submit, the sooner your article will begin the peer review process. Also, because we publish "Web First," early submission means that your article may be published with a full citation as soon as it is ready, even if that is before the full issue is published.



#### **Hybrid Open Access**

All Common Ground Journals are Hybrid Open Access. Hybrid Open Access is an option increasingly offered by both university presses and well-known commercial publishers.

Hybrid Open Access means some articles are available only to subscribers, while others are made available at no charge to anyone searching the web. Authors pay an additional fee for the open access option. Authors may do this because open access is a requirement of their research-funding agency, or they may do this so non-subscribers can access their article for free.

Common Ground's open access charge is \$250 per article—a very reasonable price compared to our hybrid open access competitors and purely open access journals resourced with an author publication fee. Digital articles are normally only available through individual or institutional subscriptions or for purchase at \$5 per article. However, if you choose to make your article Open Access, this means anyone on the web may download it for free.

Paying subscribers still receive considerable benefits with access to all articles in the journal, from both current and past volumes, without any restrictions. However, making your paper available at no charge through Open Access increases its visibility, accessibility, potential readership, and citation counts. Open Access articles also generate higher citation counts.

#### **Institutional Open Access**

Common Ground is proud to announce an exciting new model of scholarly publishing called Institutional Open Access.

Institutional Open Access allows faculty and graduate students to submit articles to Common Ground journals for unrestricted open access publication. These articles will be freely and publicly available to the whole world through our hybrid open access infrastructure. With Institutional Open Access, instead of the author paying a per-article open access fee, institutions pay a set annual fee that entitles their students and faculty to publish a given number of open access articles each year.

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#### **International Award for Excellence**

The International Journal of Climate Change: Impacts and Responses presents an annual International Award for Excellence for new research or thinking in the areas of scientific, policy, and strategic perspectives on the impacts of, and responses to, climate change. All articles submitted for publication in The International Journal of Climate Change: Impacts and Responses are entered into consideration for this award. The review committee for the award is selected from the International Advisory Board for the journal and the annual International Conference on Climate Change: Impacts and Responses. The committee selects the winning article from the ten highest-ranked articles emerging from the review process and according to the selection criteria outlined in the reviewer guidelines.

#### Award Winner, Volume No. 7

S. Thomas Ng, The University of Hong Kong, Hong Kong Christopher To, Construction Industry Council, Hong Kong

#### For the Article

"Unveiling the Embodied Carbon of Construction Materials through a Product-based Carbon Labeling Scheme"

#### **Abstract**

In order to mitigate the adverse impacts caused by climate change, governments around the world have set ambitious targets to reduce the carbon intensity of their countries. Achieving those emission reduction targets necessitates the active participation of the construction industry as the manufacturing of construction materials could contribute to 70 percent of greenhouse gases (GHG) emissions at the construction stage or 15 percent of a building's lifetime energy consumption. Minimizing the GHGs generated from the construction industry through prudent selection of "low carbon" construction materials is, therefore, imperative. This article reports a study initiated by the Construction Industry Council, Hong Kong, which aims to establish a holistic framework for assessing the life-cycle carbon footprint of construction materials at the product level. By benchmarking the emission level of a specific construction material against the norm, a carbon label can be awarded to delineate a low carbon construction material from the others. The carbon labeling framework of construction materials described in this paper is one of the pioneering product-based life cycle carbon footprint assessment tools for the construction industry. The proposed carbon labeling scheme not only allows suppliers and/or manufacturers of construction materials to communicate to their consumers in terms of the carbon footprint of their products amongst other products within the same product category, it would also help realize continuous product and design improvement and thus help reduce the carbon footprint of construction facilities. More importantly, developers, designers, and contractors can procure certified low carbon construction products so as to facilitate the construction of greener and lower carbon facilities. In this article, the features of the carbon labeling scheme for construction materials including the scope of the scheme, the material classification regime, as well as the assessment and benchmarking mechanisms will first be introduced. The article will then highlight the strategies to introduce the carbon labeling scheme to construction projects. Finally, the future development of the carbon labeling scheme will be discussed.



#### **Community Membership and Personal Subscriptions**

As part of each conference registration, all conference participants (both virtual and in-person) have a one-year digital subscription to *The International Journal of Climate Change: Impacts and Responses*. This complimentary personal subscription grants access to both the current volume of the journal as well as the entire backlist. The period of complimentary access begins at the time of registration and ends one year after the close of the conference. After that time, delegates may purchase a personal subscription.

To view articles, go to http://ijc.cgpublisher.com/. Select the "Login" option and provide a CGPublisher username and password. Then, select an article and download the PDF. For lost or forgotten login details, select "forgot your login" to request a new password.

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For more information, please visit:

- http://on-climate.com/journal/subscribe
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## Climate Change Book Imprint

Aiming to set new standards in participatory knowledge creation and scholarly publication

#### **Call for Books**

Common Ground is setting new standards of rigorous academic knowledge creation and scholarly publication. Unlike other publishers, we're not interested in the size of potential markets or competition from other books. We're only interested in the intellectual quality of the work. If your book is a brilliant contribution to a specialist area of knowledge that only serves a small intellectual community, we still want to publish it. If it is expansive and has a broad appeal, we want to publish it too, but only if it is of the highest intellectual quality.

We welcome proposals or completed manuscript submissions of:

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- · Out-of-copyright books, including important books that have gone out of print and classics with new introductions

#### **Book Proposal Guidelines**

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- Title
- Author(s)/editor(s)
- Draft back-cover blurb
- Author bio note(s)
- · Table of contents
- · Intended audience and significance of contribution
- · Sample chapters or complete manuscript
- · Manuscript submission date

Proposals can be submitted by email to books@commongroundpublishing.com. Please note the book imprint to which you are submitting in the subject line.



#### **Call for Book Reviewers**

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If you would like to review book manuscripts, please send an email to books@commongroundpublishing.com with:

- · A brief description of your professional credentials
- · A list of your areas of interest and expertise
- · A copy of your CV with current contact details

If we feel that you are qualified and we require refereeing for manuscripts within your purview, we will contact you.



## Climate Change: Impacts & Responses Conference

Curating global interdisciplinary spaces, supporting professionally rewarding relationships

#### **Conference History**

Founded in 2008, the International Conference on Climate Change: Impacts and Responses aims to create an interdisciplinary forum for the discussion of evidence of climate change, its causes, its eco-systemic impacts, and its human impacts. The conference also explores technological, policy, strategic, and social responses to climate change.

The International Conference on Climate Change: Impacts and Responses is built upon four key features: Internationalism, Interdisciplinarity, Inclusiveness, and Interaction. Conference delegates include leaders in the field as well as emerging scholars, who travel to the conference from all corners of the globe and represent a broad range of disciplines and perspectives. A variety of presentation options and session types offer delegates multiple opportunities to engage, to discuss key issues in the field, and to build relationships with scholars from other cultures and disciplines.

#### **Past Conferences**

- · 2009 Bharati Vidyapeeth Institute of Environment Education and Research, Pune, India
- · 2010 University of Queensland, Brisbane, Australia
- 2011 Rio De Janeiro, Brazil
- · 2012 University of Washington, Seattle, USA
- 2013 Port-Louis, Mauritius
- · 2014 University of Iceland, Reykjavik, Iceland
- · 2015 UBC Robson Square in Vancouver, Canada

#### **Plenary Speaker Highlights**

The International Conference on Climate Change: Impacts and Responses has a rich history of featuring leading and emerging voices from the field, including:

- Alison Anderson, University of Plymouth, Plymouth, UK (2011)
- Ken Anthony, University of Queensland, Brisbane, Australia (2010)
- · Erach Bharucha, Bharati Vidyapeeth Institute of Environment Education and Research, Pune, India (2009)
- Kathryn Harrison, University of British Columbia, Vancouver, Canada (2015)
- Jeremy Littell, University of Washington, Seattle, USA (2012)
- Richard Munang, University of Nottingham, Nottingham, UK (2013)
- Thomas Pedersen, Pacific Institute for Climate Solutions, Vancouver, Canada (2015)
- Gavin Schmidt, Goddard Institute for Space Studies at the National Aeronautics and Space Administration (NASA), USA (2015)
- Amy Snover, University of Washington, Seattle, USA (2012)



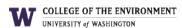
### Climate Change: Impacts & Responses | About the Conference

#### **Past Partners**

Over the years, the International Conference on Climate Change: Impacts and Responses has had the pleasure of working with the following organizations:



Bharati Vidyapeeth Institute of Environment Education and Research, Pune, India (2009)



College of the Environment, University of Washington, Seattle, USA (2012)



Melbourne, Australia (2009)



The Climate Impacts Group, University of Washington, Seattle, USA (2012)



The Pacific Institute for Climate Solutions, Vancouver, Canada (2015)



University of Mauritius, Mauritius (2013)



University of Queensland, Brisbane, Australia (2010)

#### **2016 Conference Partners**



Vietnam National University



VNU University of Science

#### **2017 Conference Partner**



Global Sustainability Institute (GSI), Anglia Ruskin University

#### **Become a Partner**

Common Ground Publishing has a long history of meaningful and substantive partnerships with universities, research institutes, government bodies, and non-governmental organizations. Developing these partnerships is a pillar of our Knowledge Community agenda. There are a number of ways you can partner with a Common Ground Knowledge Community. Contact us at support@on-climate.com to become a partner.



#### **Conference Principles and Features**

The structure of the conference is based on four core principles that pervade all aspects of the knowledge community:

#### **International**

This conference travels around the world to provide opportunities for delegates to see and experience different countries and locations. But more importantly, the Climate Change: Impacts and Responses conference offers a tangible and meaningful opportunity to engage with scholars from a diversity of cultures and perspectives. This year, delegates from over 18 countries are in attendance, offering a unique and unparalleled opportunity to engage directly with colleagues from all corners of the globe.

#### Interdisciplinary

Unlike association conferences attended by delegates with similar backgrounds and specialties, this conference brings together researchers, practitioners, and scholars from a wide range of disciplines who have a shared interest in the themes and concerns of this community. As a result, topics are broached from a variety of perspectives, interdisciplinary methods are applauded, and mutual respect and collaboration are encouraged.

#### **Inclusive**

Anyone whose scholarly work is sound and relevant is welcome to participate in this community and conference, regardless of discipline, culture, institution, or career path. Whether an emeritus professor, graduate student, researcher, teacher, policymaker, practitioner, or administrator, your work and your voice can contribute to the collective body of knowledge that is created and shared by this community.

#### Interactive

To take full advantage of the rich diversity of cultures, backgrounds, and perspectives represented at the conference, there must be ample opportunities to speak, listen, engage, and interact. A variety of session formats, from more to less structured, are offered throughout the conference to provide these opportunities.



## Climate Change: Impacts & Responses Ways of Speaking



#### **Plenary**

Plenary speakers, chosen from among the world's leading thinkers, offer formal presentations on topics of broad interest to the community and conference delegation. One or more speakers are scheduled into a plenary session, most often the first session of the day. As a general rule, there are no questions or discussion during these sessions. Instead, plenary speakers answer questions and participate in informal, extended discussions during their Garden Conversations.



#### **Garden Conversation**

Garden Conversations are informal, unstructured sessions that allow delegates a chance to meet plenary speakers and talk with them at length 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.



#### **Talking Circles**

Held on the first day of the conference, Talking Circles offer an early opportunity to meet other delegates with similar interests and concerns. Delegates self-select into groups based on broad thematic areas and then engage in extended discussion about the issues and concerns they feel are of utmost importance to that segment of the community. Questions like "Who are we?", "What is our common ground?", "What are the current challenges facing society in this area?", "What challenges do we face in constructing knowledge and effecting meaningful change in this area?" may guide the conversation. When possible, a second Talking Circle is held on the final day of the conference, for the original group to reconvene and discuss changes in their perspectives and understandings as a result of the conference experience. Reports from the Talking Circles provide a framework for the delegates' final discussions during the Closing Session.



#### **Themed Paper Presentations**

Paper presentations are grouped by general themes or topics into sessions comprised of three or four presentations followed by group discussion. Each presenter in the session makes a formal twenty-minute presentation of their work; Q&A and group discussion follow after all have presented. Session Chairs introduce the speakers, keep time on the presentations, and facilitate the discussion. Each presenter's formal, written paper will be available to participants if accepted to the journal.



#### Colloquium

Colloquium sessions are organized by a group of colleagues who wish to present various dimensions of a project or perspectives on an issue. Four or five short formal presentations are followed by commentary and/or group discussion. A single article or multiple articles may be submitted to the journal based on the content of a colloquium session.





## Climate Change: Impacts & Responses Ways of Speaking



#### **Focused Discussion**

For work that is best discussed or debated, rather than reported on through a formal presentation, these sessions provide a forum for an extended "roundtable" conversation between an author and a small group of interested colleagues. Several such discussions occur simultaneously in a specified area, with each author's table designated by a number corresponding to the title and topic listed in the program schedule. Summaries of the author's key ideas, or points of discussion, are used to stimulate and guide the discourse. A single article, based on the scholarly work and informed by the focused discussion as appropriate, may be submitted 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 projects that lend themselves to visual displays and representations. These sessions allow for engagement in informal discussions about the work with interested delegates throughout the session.



#### Thursday, 21 April

0.00 0.00	Conference Registration Reals Onen
8:00-9:00	Conference Registration Desk Open
9:00-9:30	Conference Opening—Dr. Phillip Kalantzis-Cope, Director, Common Ground Publishing, Champaign,
	USA; A Representative of MONRE, Vietnam; Dr. Nguyen Van Noi, Rector, VNU University of Science,
	Hanoi, Vietnam; Ambassador Bruno Angelet, EU Ambassador to Vietnam, Delegation of European
	Union to Vietnam, Hanoi, Vietnam
9:30-10:05	Plenary Session—Prof. Dr. Mai Trong Nhuan, Vietnam National University, Vietnam
	Low Carbon, Resilient, and Sustainable Development for Enhancing Climate Change Response in
	Vulnerable Country: Challenges and Opportunities—Lessons Learned from Vietnam
10:05-10:40	Garden Conversation featuring Prof. Dr. Mai Trong Nhuan
10:40-11:25	Talking Circles
11:25-12:25	Lunch
12:25-14:05	Parallel Sessions
14:05-14:20	Break
14:20-16:00	Parallel Sessions
16:00-17:00	Welcome Reception

#### Friday, 22 April

	· · · · · · · · · · · · · · · · · · ·	
8:30-9:00	Conference Registration Desk Open	
9:00-9:15	Daily Update	
9:15-9:45	Publishing Workshop Special Event: Publishing Session with Dr. Candice Howarth, Anglia Ruskin University, Cambridge,UK	
9:45-10:15	Garden Conversation featuring Dr. Candice Howarth	
10:15-11:55	Parallel Sessions	
11:55-12:55	Lunch	
12:55-14:35	Parallel Sessions	
14:35-14:50	Break	
14:50-16:30	Parallel Sessions	
16:30-17:00	Special Event: Conference Closing and Award Ceremony	

#### Featured Session with Candice Howarth, Anglia Ruskin University, UK

"The International Journal of Climate Change: Impacts and Responses - How to Get Published and Inform Decision Making on Climate Change"

#### Plenary Room: Friday, 22 April 2016, 9:15-9:45

The new journal editor will host a co-production workshop to facilitate interactive discussion on how to publish journal articles on climate change. The session will also involve discussion on how *The International Journal of Climate Change: Impacts and Responses* should evolve to meet the needs of its readers and decision makers in the field of climate change.

The session will involve brief summarizations from selected participants on their experiences of writing, reviewing, and publishing articles as well as how these publications are then used to inform decision making.

We invite you to participate in this session to discuss the following:

- Author experiences and tips on writing journal articles
- · Author experiences and tips on the review process and their experiences in publishing
- The role of cross-stakeholder (e.g. combining policy, practitioners, and scientists) collaboration to produce articles of a high impact that could be used to better understand social responses to climate change and inform decision making

We also welcome expressions of interest from participants who would like to have a 5-minute slot during the session to showcase their experience and lessons learnt from publishing in the field and the extent to which this has informed decision making.

#### **Welcome Reception**

On Thursday, 21 April, the International Conference on Climate Change: Impacts & Responses and Common Ground Publishing will be holding a welcome reception at the conference venue after the last session of the day. Join delegates and featured guests and speakers for drinks, light hors d'oeuvres, and a chance to converse!



#### Prof. Dr. Mai Trong Nhuan

Low Carbon, Resilient, and Sustainable Development for Enhancing Climate Change Response in Vulnerable Country: Challenges and Opportunities—Lessons Learned from Vietnam



Prof. Dr. Mai Trọng Nhuận is the former President of Vietnam National University, Hanoi. He became professor of earth sciences in 1996 and awarded the title of Teacher of Merit in 2008. He has undertaken many leadership and management positions at member universities of VNU since 1996 and served as President of VNU from October 2007 and Secretary of Vietnam Communist Party at VNU from September 2011. Prof. Mai Trong Nhuân

is an expert in higher education administration as well as a leading and highly reputable scientist in earth sciences, environment, climate change, and sustainable development. Prof. Dr. Mai Trong Nhuận has been leading a variety of scientific research projects with important applications in such fields. He co-authored the *IPCC Third Assessment Report: Climate Change 2001* and was the editor of the *Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX) of the Intergovernmental Committee on Climate Change* (IPCC, 2012). In addition to publishing more than 120 scientific papers and proceedings, Prof.Dr. Mai Trong Nhuận has been directly involved in the development of a number of pioneering training and research programs, which have paved the way for important scientific areas such as climate change, sustainability science, field supervision, non-traditional security management, and so forth. Currently, Prof. Mai Trong Nhuận is a member of the National Steering Committee for International Integration of Education, Science and Technology; member of the National Council for Education and Workforce Development. With his dedication and contributions to the fields of education and scientific research at VNU and throughout Vietnam, Prof. Dr. Mai Trong Nhuận was awarded: Certificate of Merit of Minister of Education and Training (1998); Certificate of Merit of the Prime Minister (2002); Third Class Labor Medal (2005); Palm Academy Award of the French Government (2007); and Certificate of Merit of the Vietnam General Confederation of Labor (2009, 2012). He also received the Title of Emulation Soldier at all levels and many other noble titles in consecutive years.

### Climate Change: Impacts & Responses Graduate Scholar Awardees

#### **Abigail Aderonmu**



Abigail Aderonmu is a graduate student in the Geosciences Department at the University of Missouri-Kansas City, where she works in the Laboratory for Climate Analysis and Modelling. She has a bachelor's degree in geography from Obafemi Awolowo University Ile-Ife, Nigeria and a master's in environmental geography and geographic information science from the University of Missouri-Kansas City. She is a current interdisciplinary

PhD student and her research interests include climate change and adaptation, vulnerability, and resilience and risk management strategies in agriculture.

#### **Tuan Ha**



Tuan Ha is a lecturer at Thai Nguyen University of Agriculture and Forestry, Vietnam, and a PhD Candidate in the University of Adelaide Business School. Although an early career researcher, he has had extensive experience in research and on-the-ground management in a large number of areas, including environment and community development. Tuan also serves as a reviewer for a number of international journals and as a guest editor of an

international journal. Additionally, he is a recipient of a number of competitive research grants, receiving two national and two international awards for his outstanding research outcomes. He has, so far, published nearly 40 journal and conference papers.

#### **Shayne Noronha**



Shayne recently completed a degree in landscape architecture, graduating with honors from the Unitec Institute of Technology (UIT). Participating in a variety of local projects, Shayne is strongly committed to the future development of coastal environments. Having received a research scholarship, Shayne is currently a candidate for a master's of landscape architecture at UIT, developing critical research on the positive values of sea-level rise

to sustainably guide future urbanism.

#### **Keneilwe Phora**



Keneilwe Phora completed her undergraduate and honors degree at the North-West University, South Africa, and enrolled for her MSc degree in geography there in 2016. Keneilwe also participated in the Finnish-African Network for Higher Education in Environmental Sciences program (FANHEES 3) at Lahti University of Applied Sciences. She was invited to study in Lahti with the faculty of technology as an exchange student in spring 2014.

Keneilwe's present research interests focus on aspects that are related to climate change impacts and drought monitoring from a scientific perspective.

#### Mark Anthony Velasco



Mark Anthony M. Velasco is a development studies doctoral candidate from the Political Science Department of De La Salle University. He is also a PhD research fellow at the Social Development Research Center and the Jesse Robredo Institute of Governance. He obtained his master's degree in political economy with specialization in international relations and development and his undergraduate degree in humanities, majoring in political

economy, from the University of Asia and the Pacific. His current research areas include human and social development, institutions and development, disasters, climate change, governance, and Southeast Asian studies.

Thursday, 21 April	
8:00-9:00	REGISTRATION DESK OPEN
9:00-9:30	CONFERENCE OPENING - DR. PHILLIP KALANTZIS-COPE, DIRECTOR, COMMON GROUND PUBLISHING, CHAMPAIGN, USA; A REPRESENTATIVE OF MONRE, VIETNAM; DR. NGUYEN VAN NOI, RECTOR, VNU UNIVERSITY OF SCIENCE, HANOI, VIETNAM; AMBASSADOR BRUNO ANGELET, EU AMBASSADOR TO VIETNAM, DELEGATION OF EUROPEAN UNION TO VIETNAM, HANOI, VIETNAM
9:30-10:05	PARALLEL SESSIONS
Room 1	Plenary Session - Prof. Dr. Mai Trong Nhuan, Vietnam National University, Hanoi, Vietnam; "Low Carbon, Resilient, and Sustainable Development for Enhancing Climate Change Response in Vulnerable Country: Challenges and Opportunities—Lessons Learned from Vietnam"  Overview: Low carbon and resilient development aim at getting goals of sustainable development (SD) adopted in 2015 by the UN. The main opportunities of the low carbon and resilient development in Vietnam—one of the most vulnerable and pioneering responses to climate change country—are: supporting full market and other mechanisms of low carbon, climate business; smart investment and contribution to economic and infrastructure development; and efficient use of resources for limiting temperature increase to much less than CO2. Climate innovative actions are compatible with economic and job growth, and change of the policies, strategies, and institutions promoting low carbon and resilient development.  The challenges of the low carbon and resilient development in Vietnam are inadequate of: existing policy and institutions; innovative science and technology; human and financial resources; infrastructure beyond the requirements of low carbon; and resilient to climate change and sustainable development. Most importantly, for taking the opportunities and transforming the challenges to SD opportunities, is building the model of low carbon, climate resilient, and sustainable growth. The model is based on climate smart science, technology, human resource and governance, low carbon culture, and indigenous knowledge as well as the strengths and core values of Vietnam's natural conditions and people.
10:05-10:40	GARDEN CONVERSATION FEATURING PROF. DR. MAI TRONG NHUAN AND COFFEE BREAK
10:40-11:25	TALKING CIRCLE
Room 1	Talking Circle 1: Scientific Evidence & Assessing Impacts in Divergent Ecosystems
Room 2	Talking Circle 2: Human Impacts and Impacts on Humans
Room 3	Talking Circle 3: Technical, Political, and Social Responses
Room 4	Community - Proactive Responses and Risk Management
11:25-12:25	LUNCH



#### Room 1 Implications of Temperature Change

Coral Relocation as a Possible Mitigation Tool to Accelerate Coral Recovery from Bleaching Daisuke Taira, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore Tai Chong Toh, Marine Science Institute, National University of Singapore, Singapore, Singapore

Chin Soon Lionel Ng, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore

Hai Xin Loke, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore Lutfi Afiq-Rosli, Marine Science Institute, National University of Singapore, Singapore, Singapore Kok Ben Toh, Tropical Marine Science Institutue, National University of Singapore, Singapore, Singapore

Dr. Patrick Cabaitan, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore

Rosa Du, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore Prof. Loke Ming Chou, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore

Overview: This study demonstrated that relocation of bleached corals is a potential mitigation measure to alleviate the impacts of thermal stress and to promote coral recovery after bleaching. Theme: Assessing Impacts in Divergent Ecosystems

#### Differential Response of Marginal Coral Assemblages to Thermal Stress

Kok Ben Toh, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore Tai Chong Toh, Tropical Marine Science Institute, National University of Singapore, Singapore Dr. Patrick Cabaitan, Tropical Marine Science Institute, National University of Singapore, Singapore,

Lutfi Afiq-Rosli, Tropical Marine Science Institute, National University of Singapore, Singapore Daisuke Taira, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore Chin Soon Lionel Ng, Tropical Marine Science Institute, National University of Singapore, Singapore,

Rosa Du, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore Hai Xin Loke, Tropical Marine Science Institute, National University of Singapore, Singapore, Singapore Prof. Loke Ming Chou, Department of Biological Sciences, National University of Singapore, Singapore,

Overview: A mild coral bleaching event in 2013 in Singapore shows that predicting corals susceptibility to thermal stress is complex and involves multiple factors including coral taxa, size and site. Theme: Assessing Impacts in Divergent Ecosystems

#### Dryland Degradation, Climate Variability and Climate Change: Incorporating Socio-economic Perspectives of Farmers in Jodhpur, Rajasthan

Darshini Ravindranath, Institute for Sustainable Resources, University College London, London, UK Overview: The paper explores the varying dynamics of the relationship between the natural resource base, livelihoods and increasing climate variability and climate change in an arid district of Western Rajasthan, India.

Theme: Human Impacts and Impacts on Humans



#### Room 2 Climate Change Governance

#### Recognizing the Atmospheric Absorptive Capacity as the CHM and Bringing MNCs into International Climate Change Governance

Prof. Tsung-Sheng Liao, Department of Law, National Chung Cheng University, Chiayi, Taiwan Overview: It is necessary to recognize the atmospheric absorptive capacity as the CHM. Then, MNCs can be brought into structures of global climate change governance to tackle global warming. Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### Legal Battles to Fight Climate Change: Would Taiwan Be the Next?

Yu-Han Chen, Department of Law, National Chung Cheng University, Taiwan

Mei-hen Chiu, TTY Biopharma, TTY Biopharma, Taiwan

Ching-Chia Chiu, Department of Law, National Chung Cheng University, Taiwan

Jim-Yuan Tseng, Tseng Law Firm, Tseng Law Firm, Taiwan

Prof. Tsung-Sheng Liao, Department of Law, National Chung Cheng University, Taiwan

Overview: Basing on a Dutch leading case, this paper aims to develop a new route by court to compel Taiwanese government to fulfill its duty on GHGs reduction.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

### The United Nations and Vietnam's Climate Change Challenge

Sander Chan, Environmental Policy and Natural Resources Management, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), Bonn, Germany

Hannah Blaser, Postgraduate Training Programme, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), Bonn, Germany

Claudia Ehing, Postgraduate Training Programme, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), Bonn, Germany

Micha Hummes, Postgraduate Training Programme, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), Bonn, Germany

Johanna Klotz, Postgraduate Training Programme, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), Bonn, Germany

Angelika König, Postgraduate Training Programme, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), Bonn, Germany

Lisbeth Müller-Hofstede, Postgraduate Training Programme, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), Bonn, Germany

Overview: Vietnam is a highly vulnerable country to climate change. How can the UN best support Vietnam to address the arising challenges, focusing especially on Disaster Risk Reduction (DRR) and

Theme: Technical, Political and Social Responses

#### Co-producing Climate Change Adaptation: Incorporating Practitioner Knowledge in the IPCC **Process**

Dr. Candice Howarth, Global Sustainability Institute, Anglia Ruskin University, Cambridge, UK Overview: This paper maps out strategies designed from a co-production process on how practitioner based-evidence could be better incorporated in the IPCC Working Group 2 process.

Theme: Technical, Political and Social Responses



#### Room 3 Community Responses to Climate Change

Community Resilience to Climate Change: The Case of Solor and Semau, Indonesia Adji Krisbandono, Research Institute of Policy Studies, The Ministry of Public Works and Housing, South Jakarta, Indonesia

F.X. Hermawan Kusumartono, Research Institute of Policy Studies, The Ministry of Public Works and Housing, South Jakarta, Indonesia

Overview: Indonesian small islands are vulnerable to climate change impacts, specifically water shortage. The research finds people in the islands with lower economy have stronger social capital as a response.

Theme: Human Impacts and Impacts on Humans

#### Coastal Households Perception, Awareness and Knowledge of Climate Change Triggered Events and their Effects on Aquaculture in Ben Tre Province, Vietnam

Thi Nguyen, Faculty of Economics, Nha Trang University, Nha Trang, Viet Nam Trang Huyen Thi Le, Faculty of Economics, Nha Trang University, Nha Trang, Viet Nam Chongbui Thien Phuc Ngyen Bui, Faculty of Economics, Nha Trang University, Nha Trang, Viet Nam Curtis M. Jolly, Agricultural Economics and Rural Sociology, Auburn University, Auburn, USA Overview: We identify the impacts of climate change events on Ben Tre's poor coastal communities to evaluate their perception, awareness, knowledge and the effects of climate change triggered events on aquaculture.

Theme: Technical, Political and Social Responses

#### Vulnerability to Changing Climate: Smallholder Farmers Coping Strategies in Drought Prone Districts of Cambodia and Nigeria

Dr. Jummai O. Yila, African Forest Forum (AFF), Nairobi, Kenya Norm Sina, Center for Khmer Studies (CKS), Phnom Penh, Cambodia

Overview: The study investigates how smallholder farmers in drought-prone districts in Cambodia and Nigeria cope with climate stress resulting from the impacts of climate variability and extremes due to drought.

Theme: Technical, Political and Social Responses

14:05-14:20 **COFFEE BREAK** 



### 14:20-16:00 PARALLEL SESSIONS

#### Room 1 Disaster Mitigation and Recovery

#### A Systemic Approach to Disaster Resilience in a Coastal City of Vietnam

Tuan Ha, Business School, The University of Adelaide, Adelaide, Australia

Nhung Le, Vietnam - US Sister Cities Disaster Preparedness Initiative, Peace Winds America, Hai Phong, Viet Nam

Overview: This paper presents evident outcomes of the Vietnam - US sister cities disaster preparedness initiative, using a systemic approach. It aims to achieve a "disaster-ready" and resilient

Theme: Technical, Political and Social Responses

### Longer-term Recovery Following Major Disasters: Insights for Climate Resilient Development

Danny Marks, School of Geosciences, University of Sydney, Sydney, Australia

Louis Lebel, Unit for Social and Environmental Research (USER) at the Faculty of Social Sciences, Chiang Mai University, Chiang Mai, Thailand

Frank Thomalla, Stockholm Environment Institute Asia Centre, Bangkok, Thailand

Michael Boyland, Stockholm Environment Institute Asia Centre, Bangkok, Thailand

Ham Kimkong, Department of Environmental Science, Royal University of Phnom Penh, Phnom Penh, Cambodia

Sinh Bach Tan, Department of S&T Human Resource Policy and Organization, National Institute for Science and Technology Policy and Strategic Studies, Hanoi, Viet Nam

Agus Nugroho, Stockholm Environment Institute Asia Centre, Bangkok, Thailand

Overview: This study improves understanding of how decisions and actions undertaken to recover from a disaster influence long-term resilience. It draws upon insights from disasters in four Southeast Asian

Theme: Technical, Political and Social Responses

#### Inter-Local Government Collaboration in Managing Watersheds to Mitigate Disasters: The Case of Marikina Watershed in Metro Manila, Philippines

Mark Anthony M. Velasco, Political Science Department, De La Salle University, Manila, Philippines Overview: The study examines the case of Marikina Watershed. It highlights experiences of local government units in managing the environmental degradation and absence of effective governance. Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### The Impact of Remittances, Natural Disasters and Precipitation Variability on Economic Growth Rate Volatility in Africa

Soobin You, Institutes of Green Bio Science and Technology, Graduate School of International Agricultural Technology, Seoul National University, Seoul, South Korea

Taeyoon Kim, Institutes of Green Bio Science and Technology, Graduate School of International Agricultural Technology, Seoul National University, Seoul, South Korea

Overview: This paper investigates the effect of remittance inflows on the GDP growth rate volatility and the function of remittances when fluctuation in rainfall and natural disaster shocks occur in Africa Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management



### 14:20-16:00 PARALLEL SESSIONS

#### Room 2 Community Resilence

### The Assessment of Climate Vulnerability for Farmers' Households in Pyapon District, Delta Region of Myanmar

Tun Oo Aung, Department of Agricultural Economics, Ghent University, Gent, Belgium Dr. Stijn Speelman, Department of Agricultural Economics, Ghent University, Ghent University, Belgium Dr. Guido Van Huylenbroeck, Faculty of of Bioscience Engineering, Ghent University, Gent, Belgium Overview: The study explores the climate vulnerability of the farm households using two indicator methods: the Livelihood and the Socioeconomic Vulnerability Indexes. Theme: Human Impacts and Impacts on Humans

#### Sea-Level Rise in Christchurch, New Zealand: Seismic-Climatic Dynamics, Urban Landscape **Evolution and Societal Responses**

Dr. Matthew William Hughes, Department of Civil and Natural Resources Engineering Department of Geological Sciences, University of Canterbury, Christchurch, New Zealand

Overview: Earthquakes in Christchurch, New Zealand, have exacerbated potential sea-level impacts. Scientific engagement with wider civil society reveals complex socio-economic responses to the issue, but also interest in sustainable urban trajectories.

Theme: Human Impacts and Impacts on Humans

#### A Community Resilience Assessment Framework for Climate Change Adaptation Planning: Urban Floodings in Korea

Tae-hyun Kim, Korea Environmental Information Center, Korea Environment Institute, Sejong, South Korea

Donghyun Kim, Korea Adaptation Center for Climate Change, Korea Environment Institute, Sejong-si, South Korea

Overview: This study aims to assess the factors enhancing resiliency of a community against urban flooding by employing the 5Rs framework of disaster resilience: Robustness, Redundancy, Rapidity, Resourcefulness and Regional competence.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

### Room 3 Late Additions

16:00-17:00 CONFERENCE WELCOME RECEPTION



	FRIDAY, 22 APRIL
8:30-9:00	REGISTRATION DESK OPEN
9:00-9:15	DAILY UPDATE
9:15-9:45	SPECIAL EVENT
Room 1	Special Event: Publishing Session with Dr. Candice Howarth, Anglia Ruskin University, UK
9:45-10:15	GARDEN CONVERSATION FEATURING CANDICE HOWARTH AND COFFEE BREAK
10:15-11:55	PARALLEL SESSIONS
Room 1	Coastal Issues and Impacts
	Rising Tides and the Future of Coastal Communities  Shayne Noronha, Department of Landscape Architecture, United Institute of Technology, Auckland, New Zealand  Daniel Irving, Department of Landscape Architecture, United Institute of Technology, Auckland, New Zealand  Overview: We discuss a specific New Zealand case-study that explores the positive values of sea-level rise in a resilient coastal design strategy for an "at-risk" coastal community.  Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management
	Coastal City Adaptations to Climate Change: A Case Study of Da Nang City, Vietnam Nguyen Tai Tue, Faculty of Geology, VNU University of Science, Vietnam National University, Hanoi, Hanoi, Viet Nam Mai Trong Nhuan, Faculty of Geology, VNU University of Science, Vietnam National University, Hanoi, Hanoi, Viet Nam Tran Dang Quy, Faculty of Geology, VNU University of Science, Vietnam National University, Hanoi, Hanoi, Viet Nam Nguyen Dinh Thai, Faculty of Geology, VNU University of Science, Vietnam National University, Hanoi, Hanoi, Viet Nam Nguyen Thi Hao, Center for Sea and Island Research, VNU University of Science, Hanoi, Viet Nam Overview: Climate change projects indicate severe impacts on urban areas, particularly, coastal cities. This study proposed a framework of a coastal city as an example of adaptation to climate change. Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management



#### 10:15-11:55 PARALLEL SESSIONS

#### Room 2 The Science of Climate Change

#### Sensors and Mini Photocatalytic Reactor as a Tool for Measure CO2 Gas from the Degradation of the Detergent Active Compound

Dr. Yeyen Maryani, Chemical Engineering, Sultan Ageng Tirtayasa University, Cilegon, Indonesia Overview: This study aims to test the performance and feasibility of new tools and methods for analysis of detergent based on the photocatalytic degradation of LAS and ABS.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### Shifting to Renewable Energy to Mitigate Carbon Emissions: Initiatives by the States of Gulf Cooperation Council

Hilal Khalfan Al Shidi, Biology Department, Sultan Qaboos University, Muscat, Oman

Dr. Hameed Sulaiman Seyed Mohamed, Biology Department Science College, Sultan Qaboos University, Muscat, Oman

Patrick Amoatey, Biology Departmet, Sultan Qaboos University, Muscat, Oman

Overview: The Gulf Cooperation Council countries have taken initiatives in the recent past to invest in renewable energy projects as a major step to mitigate carbon emission from oil-gas driven economy. Theme: Technical, Political and Social Responses

#### A Formation Model in the Distribution of Sulfur Dioxide Pollutant Concentrations in Cilegon City with the Use of Grid Techniques

Dr. Yayat Ruhiat, Physics Departement Sultan Ageng Tirtayasa University Indonesia, Indonesian Physical Society, Serang, Indonesia

Overview: This study aims to determine the magnitude of the concentration and distribution of SO2 spread formations in one of the industrial areas in Indonesia with the use of grid techniques.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### Energy Balance and Increased Climatic Irregularity as a Climate Change Indicator: Data and Modeling

Prof. Asfaw Beyene, Mechanical Engineeirng, ASME, San Diego, USA

Prof. Abebayehu Assefa, Mechanical Engineering, Addis Ababa, Ethiopia

Overview: We discuss energy balance of the atmosphere as control volume, historical - temporal scatter of weather data to quantify climatic irregularity as a measure of the intensity of climate change. Theme: Scientific Evidence

#### Room 3 Special Topics for Divergent Ecosystems

#### Vulnerability of Canadian Prairie Mixed Crops and Beef Farm to Climate Change and Extremes

Prof. Suren Kulshreshtha, Department of Bioresource Policy, Business and Economics,, University of Saskatchewan, Saskatoon, Canada

Overview: Economics of climate change on agriculture producers is examined in this paper using the case of a mixed farm in the Canadian prairie region.

Theme: Assessing Impacts in Divergent Ecosystems

#### Climate Change Impacts on Floods and Water Availability across China in the 21st Century Prof. Yongqin Chen, Dept of Geography and Resource Management, Chinese University of Hong Kong, Shatin, Hong Kong

Overview: We analyzed discharge simulations from Inter-Sectoral Impact Model Intercomparison Project to evaluate the potential changes in floods and water availability across China in the 21st century under the changing climate.

Theme: Assessing Impacts in Divergent Ecosystems

#### Marine Social-Ecological Resilience in the Face of Climate Change

Thuy Duong Khuu, Institute for Sustainable Resources The Bartlett UCL Faculty of the Built Environment, University College London, London, UK

Overview: I discuss marine social-ecological resilience in the face of climate change using a case study of Marine Protected Area (MPA) Governance in Vietnam.

Theme: Assessing Impacts in Divergent Ecosystems

11:55-12:55 LUNCH



#### Room 1 Policies and Political Responses

Climate Change in Missouri State Park and Historic Sites: A Managerial Perspective Ojetunde Ojewola, Human Dimensions of Natural Resources, University of Missouri, Columbia, USA Dr. Mark Morgan, Parks, Recreation and Tourism, University of Missouri, Columbia, USA Dr. Sonja Wilhelm Stanis, Parks, Recreation and Tourism, University of Missouri, Columbia, USA Overview: Understanding park manager's knowledge of and attitudes toward climate change are important determinants of environmental decision-making behavior, policy formation, and communication with visitors and relevant stakeholders through informal education strategies. Theme: Technical, Political and Social Responses

#### Policies for Greenhouse Gas Reduction in Transport

Dr. Amela Ajanovic, Energy Economics Group, Vienna University of Technology, Vienna, Austria Overview: The core objective of this paper is to compare and discuss different policy measures and their contribution to the reduction of GHG emissions in the EU.

Theme: Technical, Political and Social Responses

#### Climate Change Governance in Megadiverse Countries: An Inter-regional Assessment of REDD+ Flows in Asia, Africa, and Latin America

Alicia Guzmán León, Escuela de Gobierno y Transformación Pública, Tec de Monterrey, Mexico City,

Overview: This paper examines all the interventions accounted as REDD+ in the developing megadiverse countries. The goal is to define the financial flows and the governance model resulting from these interventions.

Theme: Technical, Political and Social Responses

#### Road Transportation: Options for Greenhouse Gas Reduction in Oman

Patrick Amoatey, Biology Department, Sultan Qaboos University, Muscat, Oman

Dr. Hameed Sulaiman Seyed Mohamed, Biology department, Science college, Sultan Qaboos University, Muscat, Oman

Overview: High temperatures and limited public transportation system in Oman has led to increase in vehicular usage causing traffic congestion and GHG emissions. Hence, sustainable measures are required reduce the impact.

Theme: Technical, Political and Social Responses



#### Room 2 Communicating and Managing Risk

### Countering Increases of Antibiotic Usage Due to Climate Change: Adaptation to Provide

Prof. Terence Centner, Department of Agricultural and Applied Economics, The University of Georgia, Athens, USA

Overview: Climate variability will increase disease, decimate crops, and disrupt food distribution systems.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### Lay Representations of Climate Change Risk: Coalescing Natural Climate Impacts with the Repercussions of Anthropogenic Climate Change

Dr. Scott Hanson-Easey, School of Public Health, The University of Adelaide, Adelaide, Australia Overview: This study examines how lay people represent climate change risk, and discusses how these sense-making processes might facilitate or constrain risk communication, public engagement, and policy acceptance.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### Climate Change Adaptation: A Focus on Water Governance in the Philippines

Dr. Corazon Abansi, Institute of Management, University of the Philippines Baguio, Baguio City, **Philippines** 

Overview: This paper will characterize the water governance regime in the Philippines and will derive implications for climate change adaptation.

Theme: Technical. Political and Social Responses

#### From Educational Resilience to City Resilience: A Case Study in Danang City, Vietnam

Dr. Thi My Thi Tong, Department of Climate Change and Sustainable Development, Hanoi University of Natural Resource and Environment, Hanoi, Viet Nam

Overview: This study applied the school disaster resilience assessment to all schools in Danang, Vietnam. Results illustrate educational resilience level and provide important insights into enhancing city resilience to climate change.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management



#### Room 3 Poster Session

### The Taiwan/TriG Radio Occultation Process System: A Powerful System to Study Climate

Dr. Wen-Hao Yeh, GPS Science and Application Research Center, National Central University, Taoyuan,

Dr. Cheng-Yung Huang, GPS Science and Application Research Center, National Central University, Taovuan, Taiwan

Dr. Tzu-Pang Tseng, GPS Science and Application Research Center, National Central University, Taoyuan, Taiwan

Linton K. Chen, National Space Organizaton, HsinChu, Taiwan

Overview: Taiwan/TriG Radio Occultation Process System (TROPS) is a retrieval system to analyze the ratio occultation data, and it can provide globally distributed atmospheric profiles for the research of climate change.

Theme: Technical, Political and Social Responses

#### Assessing the Impact of Changing Climate on Agriculture in Missouri and the Use of Crop Insurance as Adaptation Strategy

Abigail Aderonmu, Department of Geosciences, University of Missouri, Kansas City, USA Jimmy Adegoke, Department of Geo-Sciences, University of Missouri, Missouri, USA

Overview: This study assesses the vulnerability of climate divisions and examines the use of crop insurance as an adaptation strategy for agriculture in Missouri.

Theme: Technical, Political and Social Responses

#### Integrated Risk Management Initiative towards a "Disaster Ready" and "Resilient" City in Northern Vietnam

John Sanders, Peace Winds America - Vietnam Initiative, Peace Winds America - U.S.A., Hai Phong, Viet Nam

Tuan Ha, Business School, The University of Adelaide, Adelaide, Australia

Nhung Le, Vietnam - US Sister Cities Disaster Preparedness Initiative, Peace Winds America, Hai Phona. Viet Nam

Huong Vu, Hai Phong, Viet Nam

Overview: This poster introduces a disaster preparedness aiming at improving risk management policies and practices in a coastal city of northern Vietnam towards resiliency and sustainable development.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### Development of Climate Change Risk Assessment Tools for Company's Adaptation in **Business Sector**

Donghyun Kim, Korea Adaptation Center for Climate Change, Korea Environment Institute, Sejong-si, South Korea

Overview: This study shows the method and tools of climate risk assessment in business sector. The tool focuses on estimating the financial implications.

Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### Rural Coastal People in Chanthaburi Province, Thailand: The Risk of Severe Seawater Inundation

Jirawat Panpeng, Field of study: Climate Change and Sustainable Development, School of Environment, Resources and Development, Bang Bua Thong, Thailand

Overview: The research aims to understand and stimulate stakeholders concerned for vulnerability of coastal fishery communities in Thailand to seawater inundation and applied climate-predicting model and GIS to pursue the aim.

Theme: Assessing Impacts in Divergent Ecosystems

### The Effects of Elevated Temperature on Appetite of Amphiprion Oculars Juveniles

Linh Pham, Nha Trang University, University of Bergen, Nha Trang, Viet Nam

Ivar Rønnestad, Institutt for biologi, University of Bergen, Bergen, Norway

Minh Nguyen, Nha Trang University, Nha Trang, Viet Nam

Ann-Elise Olderbakk Jordal, Department of Biology, University of Bergen, Bergen, Norway Anh Pham, Nha Trang University, Nha Trang, Viet Nam

Overview: Endocrines that control appetite in fish were affected by temperature stress. Expression of genes were measured by relative quantitative qPCR.

Theme: Scientific Evidence



Climate Variability and Its Impact on the Spatial Distribution of Mangroves in Qatar

Prof. Sumith Pathirana, Biological and Environmental Sciences, Qatar University, Doha, Qatar Dr. Jassim Al-Khayat, Biological and Environmental Sciences Department, Qatar University, Doha, Qatar

Overview: In this project, climate change impact on mangroves in Qatar will be assessed using GIS, remote sensing and species distribution modelling.

Theme: Assessing Impacts in Divergent Ecosystems

### Classification of Anemonefish Species in Khanh Hoa, Vietnam: Morphological and Genetic Characters

Thanh Nguyen Thi Hai, Department of Biology, Nha Trang University, Nha Trang, Viet Nam Vi Luong Thi Tuong, Department of Biology, Nha Trang University, Viet Nam

Dr. Binh Dang Thuy, Department of Biology, Nha Trang University, Viet Nam

Overview: We identify anemonefish species in Khanh Hoa, Vietnam by using morphological characters (color pattern, morphometrics) and molecular markers (16SmtDNA) and revealing the species relationship based on phylogenic tree.

Theme: Assessing Impacts in Divergent Ecosystems

#### 14:35-14:50

#### COFFEE BREAK

#### 14:50-16:30

### PARALLEL SESSIONS

#### Room 1

#### Towards Sustainability

### Fostering Sustainable Behaviours in Taiwan: "Readiness-to-Act" in a Sample of Taiwanese Students

Prof. Joseph Lavallee, International Business and Trade Program, Ming Chuan University International College, Taipei, Taiwan

Prof. Bruno Di Giusto, International College, Ming Chuan University, Taipei, Taiwan

Prof. Tai-Yi Yu, Department of Risk Management and Insurance, Ming Chuan University, Taipei, Taiwan Scott Sommers, School of Education and Applied Linguistics, Ming Chuan University, Taipei, Taiwan Overview: We report results from a questionnaire study which investigated the extent to which sustainable behaviours are currently practiced, and the willingness to adopt such behaviours amongst young adults in Taiwan.

Theme: Technical, Political and Social Responses

### Reducing GHG Emissions in Electricity Systems: How to Integrate Large Shares of Renewables

Reinhard Haas, *Energy Economics Group, Technical University of Vienna, Vienna, Austria Overview:* The core objective of this paper is to show how large shares of renewables can be integrated into an electricity system.

Theme: Technical, Political and Social Responses

Building Capacity for Change: A Case Study on Disaster Preparedness in Haiphong, Vietnam Nhung Le, Vietnam - US Sister Cities Disaster Preparedness Initiative, Peace Winds America, Hai Phong, Viet Nam

Tuan Ha. Business School, The University of Aledaile, Alelaide, Australia

Overview: This paper discusses a comprehensive risk reduction approach in Haiphong, Vietnam. Evident outcomes of a capacity building component are presented and strategies towards a resilient community are discussed.

Theme: Technical, Political and Social Responses

### Social Factors for Success in Vehicle Use Limitations Strategies to Reduce Climate Change: A Comparison between Experiences of Mexico City, US and Canadian Cities

Edit Antal, Centre for Research on North America, UNAM, Ciudad de México, Mexico

Ernesto Carmona, Social and Political Sciences Graduate Program, National Autonomus University of Mexico, Mexico City, Mexico

Overview: This paper identifies the social and political factors which guarantee that vehicle use restriction programs have favorable climatic results and avoid aggravating current social conflicts or creating new ones.

Theme: Technical, Political and Social Responses



#### 14:50-16:30 PARALLEL SESSIONS

#### Room 2 Impact Assessments

#### Testing for Climate Change: Evolutionary Dynamics of Precipitation in Atlantic Canada

Dr Yuri Yevdokimov, Department of Economics, University of New Brunswick, Fredericton, Canada Overview: I discuss econometric modeling of precipitation time series in Atlantic Canada to detect potential climate change.

Theme: Assessing Impacts in Divergent Ecosystems

#### The Effect of Climate Change on the Tier Two Cities in India

Neha Singh, Department-Humanities and Social Sciences, Discipline- Sociology, Indian Institute of Technology Indore, Indore, India

Overview: The paper talks about how climate change is affecting the non perennial rivers in tier two cities. It also explains how it brings hazards for communities living nearby.

Theme: Human Impacts and Impacts on Humans

#### Integrative Assessment of Co-benefits for Climate and Public Health with Focus on Diet: A Schnitzel a Day Makes Your Health Go Away

Assoc. Prof. Hans-Peter Hutter, Institute of Environmental Health, Center for Public Health, Medical University Vienna, Vienna, Austria

Cem Ekmekcioglu, Institute of Environmental Health, CPH, Medical University Vienna, Vienna, Austria Dr. Peter Wallner, Medicine and Environmental Protection, Vienna, Austria

Prof. Michael Kundi, Institute of Environmental Health, Center for Public Health, Medical University Vienna, Vienna, Austria

Willi Haas, Klagenfurt, Austria

Ulli Weisz, Klagenfurt, Austria

Christian Lauk, Vienna, Austria

Karl Steininger, Graz, Austria

Brigitte Wolkinger, Graz, Austria

Robert Griebler, Vienna, Austria

Jennifer Delcour, Vienna, Austria

Peter Nowak, Vienna, Austria

Michaela Theurl, Vienna, Austria

Hanns Moshammer, Vienna, Austria

Overview: Within our project "ClimBHealth" we developed an approach for Austria investigating urban mobility and diets as highly relevant issues both for climate and health.

Theme: Human Impacts and Impacts on Humans

#### Room 3 Late Additions

#### A Review of the World Bank Group Response: Climate Mitigation Finance

Raghavan Narayanan, Independent Evaluation Group, World Bank Group, Washington, USA Overview: This paper will review the response and direct interventions from the world's largest multilateral bank (World Bank Group) towards climate change mitigation and indirect interventions. Theme: 2016 Special Focus: Climate Change: A Knowledge and Resilience Community - Proactive Responses and Risk Management

#### Effects of Different Types of Cap-and-Trade Mechanisms on CO2 Reduction: Experiences from China, India and Japan

Dr. Kenichi Imai, Research Department, Asian Growth Research Institute, Kitakyushu, Japan Dr. Kaushik Ranjan Bandyopadhyay, Department of Business Sustainability, TERI University, New Delhi, India

Dr. Huizhi Wang, Institute for Economic and Social Research, Tianjin Academy of Social Sciences, Tianjin, China

Overview: This study analyzes firstly the scheme designs of different cap-and-trade mechanisms in China, India and Japan, and secondly the expected achievements of their targets based on theoretical implications and data.

Theme: Scientific Evidence

16:30-17:00

SPECIAL EVENT: CLOSING AND AWARD CEREMONY - DR. PHILLIP KALANTZIS-COPE, DIRECTOR, COMMON GROUND PUBLISHING, USA





## Climate Change: Impacts & Responses | List of Participants

Corazon	Abansi	University of the Philippines Baguio	Philippines
Abigail	Aderonmu	University of Missouri, Kansas City	USA
Amela	Ajanovic	Vienna University of Technology	Austria
Jassim	Al-Khayat	Qatar University	Qatar
MD Mahmudul	Alam	Local Government Engineering Department (LGED)	Bangladesh
Patrick	Amoatey	Sultan Qaboos University	Oman
Bruce	Angelet	European Union to Vietnam	Viet Nam
Edit	Antal	National Autonomous University of Mexico	Mexico
Tun Oo	Aung	Ghent University	Belgium
Asfaw	Beyene	San Diego State University	USA
Thanh	Bui Quang	VNU University of Science	Viet Nam
Terence	Centner	The University of Georgia	USA
Yongqin	Chen	Chinese University of Hong Kong	Hong Kong
Yu-Han	Chen	National Chung Cheng University	Taiwan
Ching-Chia	Chiu	National Chung Cheng University	Taiwan
Mei-hen	Chiu	National Chung Cheng University	Taiwan
Loke Ming	Chou	National University of Singapore	Singapore
Duc	Do Minh	VNU University of Science	Viet Nam
Toan	Duong Thi	VNU University of Science	Viet Nam
Claudia	Ehing	German Development Institute	Germany
Virginia	Gravalos	Freelance Urban Planner	Viet Nam
Alicia	Guzmán León	Tec de Monterrey	Mexico
Tuan	На	The University of Adelaide	Australia
Reinhard	Haas	Technical University of Vienna	Austria
Scott	Hanson-Easey	The University of Adelaide	Australia
Candice	Howarth	Anglia Ruskin University	UK
Matthew William	Hughes	University of Canterbury	New Zealand
Hans-Peter	Hutter	Medical University Vienna	Austria
Kenichi	Imai	Asian Growth Research Institute	Japan
Curtis M.	Jolly	Auburn University	USA
Hilal	Khalfan Al Shidi	Sultan Qaboos University	Oman
Thuy Duong	Khuu	University College London	UK
Donghyun	Kim	Korea Environment Institute	South Korea
Tae-hyun	Kim	Korea Environmet Institute	South Korea
Adji	Krisbandono	The Ministry of Public Works and Housing	Indonesia
Suren	Kulshreshtha	University of Saskatchewan	Canada
F.X. Hermawan	Kusumartono	The Ministry of Public Works and Housing	Indonesia
Joseph	Lavallee	Ming Chuan University International College	Taiwan
Nhung	Le	Peace Winds America	Viet Nam
Tsung-Sheng	Liao	National Chung Cheng University	Taiwan
Danny	Marks	University of Sydney	Australia
Yeyen	Maryani	University of Sultan Ageng Tirtayasa	Indonesia
Mark	Morgan	University of Missouri	USA
Raghavan	Narayanan	World Bank Group	USA
Thanh	Ngo-Duc	VNU University of Science	Viet Nam





## Climate Change: Impacts & Responses | List of Participants

Hoi	Nguyen Chu	VNU University of Science	Viet Nam
Ngu	Nguyen Duc	Science and Technology Center for	Viet Nam
		Hydrometeorology and Environment	
Truc	Nguyen Ngoc	VNU University of Science	Viet Nam
Thanh	Nguyen Thi Hai	Nha Trang University	Viet Nam
An Hang	Nguyen Thi	VNU Vietnam-Japan University	Viet Nam
Hiep	Nguyen Van	Institute of Hydrology, Meteorology, and Climate Change	Viet Nam
Tuyet	Nguyen	VNU Vietnam-Japan University	Viet Nam
Shayne	Noronha	Unitec Institute of Technology	New Zealand
Ojetunde	Ojewola	University of Missouri	USA
Jirawat	Panpeng	School of Environment, Resources and Development	Thailand
Sushanto Kumar	Paul	Local Government Engineering Department	Bangladesh
Thu	Pham Thanh	Vietnam Weather and Disaster Broadcast Center	Viet Nam
Dung	Pham Viet	VNU Vietnam-Japan University	Viet Nam
Linh	Pham	University of Bergen	Viet Nam
Tan	Phan Van		Viet Nam
Tran	Quang	VNU University of Science	Viet Nam
Darshini	Ravindranath	University College London	UK
Yayat	Ruhiat	Indonesian Physical Society	Indonesia
John	Sanders	Peace Winds America	Viet Nam
Hameed Sulaiman	Seyed Mohamed	Sultan Qaboos University	Oman
Neha	Singh	Indian Institute of Technology Indore	India
Daisuke	Taira	National University of Singapore	Singapore
Kok Ben	Toh	National University of Singapore	Singapore
Thi My Thi	Tong	Hanoi University of Natural Resource and Environment	Viet Nam
Jim-Yuan	Tseng	National Chung Cheng University	Taiwan
Nguyen Tai	Tue	Vietnam National University	Viet Nam
Mark Anthony M.	Velasco	De La Salle University	Philippines
Wen-Hao	Yeh	National Space Organizaton	Taiwan
Yuri	Yevdokimov	University of New Brunswick	Canada
Jummai O.	Yila	African Forest Forum	Kenya
Soobin	You	Seoul National University	South Korea











## COMMON GROUND | Conference Calendar 2016–2017



### Inaugural International Conference on Tourism & Leisure Studies

University of Hawaii at Manoa Honolulu, USA | **22–23 April 2016** www.tourismandleisurestudies.com/2016-conference



## Seventh International Conference on Sport & Society

University of Hawaii at Manoa Honolulu, USA | **2–3 June 2016** www.sportandsociety.com/2016-conference



### Fourteenth International Conference on New Directions in the Humanities

University of Illinois at Chicago Chicago, USA | **8–10 June 2016** www.thehumanities.com/2016-conference



#### **Ninth Global Studies Conference**

University of California, Los Angeles Los Angeles, USA | **30 June–1 July 2016** www.onglobalization.com/2016-conference



### Twenty-third International Conference on Learning

University of British Columbia Vancouver, Canada | **13–15 July 2016** www.thelearner.com/2016-conference



# Sixteenth International Conference on Diversity in Organizations, Communities & Nations

The University of Granada Granada, Spain | **27–29 July 2016** www.ondiversity.com/2016-conference



### **Eleventh International Conference on Interdisciplinary Social Sciences**

Imperial College London London, UK | **2–4 August 2016** www.thesocialsciences.com/2016-conference



### **Eleventh International Conference on the Arts in Society**

University of California, Los Angeles Los Angeles, USA | **10–12 August 2016** www.artsinsociety.com/2016-conference



## **Seventh International Conference on the Image**

Art and Design Academy, Liverpool John Moores University Liverpool, UK | **1–2 September 2016** www.ontheimage.com/2016-conference



### Inaugural Communication & Media Studies Conference

University Center Chicago Chicago, USA | **15–16 September**, **2016** www.oncommunicationmedia.com/2016-conference



### Ninth International Conference on the Inclusive Museum

National Underground Railroad Freedom Center Cincinnati, USA | **16–19 September 2016** www.onmuseums.com/2016-conference



### Aging & Society: Sixth Interdisciplinary Conference

Linköping University
Linköping, Sweden | **6–7 October 2016**www.agingandsociety.com/2016-conference



### **Sixth International Conference on Food Studies**

University of California at Berkeley Berkeley, USA | **12–13 October 2016** www.food-studies.com/2016-conference



## Sixth International Conference on Health, Wellness & Society

Catholic University of America Washington D.C., USA | **20–21 October 2016** www.healthandsociety.com/2016-conference



# Spaces & Flows: Seventh International Conference on Urban & ExtraUrban Studies

University of Pennsylvania Philadelphia, USA | **10–11 November 2016** www.spacesandflows.com/2016-conference





## COMMON GROUND | Conference Calendar 2016–2017



# Thirteenth International Conference on Environmental, Cultural, Economic & Social Sustainability

Greater Rio de Janeiro, Brazil | **19–21 January 2017** www.onsustainability.com/2017-conference



### Eleventh International Conference on Design Principles & Practices

Institute without Boundaries at George Brown College Toronto, Canada | **2–4 March 2017** www.designprinciplesandpractices.com/2017-conference



### Second International Conference on Tourism & Leisure Studies

UBC Robson Square
Vancouver, Canada | **6**–**7 April 2017**www.tourismandleisurestudies.com/2017-conference



## Seventh International Conference on Religion & Spirituality in Society

Imperial College London London, UK | 17–18 April 2017 www.religioninsociety.com/2017-conference



# Seventeenth International Conference on Knowledge, Culture, and Change in Organizations

Charles Darwin University
Darwin, Australia | **20–21 April 2017**www.organization-studies.com/2017-conference



## Ninth International Conference on Climate Change: Impacts & Responses

Anglia Ruskin University
Cambridge, UK | **21–22 April 2017**www.constructedenvironment.com/2017-conference



### Seventh International Conference on the Constructed Environment

International Cultural Centre
Krakow, Poland | **25–26 May 2017**www.constructedenvironment.com/2017-conference



## Thirteenth International Conference on Technology, Knowledge & Society

University of Toronto
Toronto, Canada | **26–28 May 2017**www.techandsoc.com/2017-conference



## Tenth International Conference on e-Learning and Innovative Pedagogies

University of Toronto Toronto, Canada | **28 May 2017** www.ubi-learn.com/2017-conference



#### **Tenth Global Studies Conference**

National University of Singapore Singapore | **8–9 June 2017** www.onglobalization.com/2017-conference



### Twelfth International Conference on the Arts in Society

Pantheon-Sorbonne University
Paris, France | **14–16 June 2017**www.artsinsociety.com/2017-conference



## Fifteenth International Conference on New Directions in the Humanities

Imperial College London
London, UK | **5–7 July 2017**www.thehumanities.com/2017-conference



## Fifteenth International Conference on Books, Publishing & Libraries

Imperial College London London, UK | **7 July 2017** www.booksandpublishing.com/2017-conference



### Twelfth International Conference on Interdisciplinary Social Sciences

International Conference Center Hiroshima, Japan | **26–28 July 2017** www.thesocialsciences.com/2017-conference



### **Seventh International Conference on Food Studies**

Roma Tre University Rome, Italy | **26–27 October 2017** www.food-studies.com/2017-conference



# **Call for Papers**

Ninth International Conference on

# Climate Change: Impacts & Responses

21-22 APRIL 2017 | ANGLIA RUSKIN UNIVERSITY | CAMBRIDGE, UK | ON-CLIMATE.COM



### **Returning Member Registration**

We are pleased to offer a Returning Member Registration Discount to delegates who have attended the Climate Change: Impacts & Responses Conference in the past. Returning community members receive a discount off the full conference registration rate. Registration includes:

- Attendance and participation at all conference sessions and presentations, including plenary addresses and parallel sessions.
- Lunch and coffee breaks on the days of the conference.
- Attendance at Welcome Reception and Book Launches (when included in conference events).
- Citation and Summary of work in printed conference program, and complete abstract included in the online Post-Conference materials.
- Membership in the Climate Change: Impacts & Responses Knowledge Community.

### **Proposal & Registration Dates**

#### **Proposal Deadlines**

Advanced Proposal Deadline	21 June 2016	
Early Proposal Deadline	21 Sept 2016	
Regular Proposal Deadline	21 January 2017	
Late Proposal Deadline	21 March 2017	

#### Registration Deadlines

Advanced Registration Deadline	21 July 2016
Early Registration Deadline	21 October 2016
Regular Registration Deadline	21 April 2017





