COP24 Side-event sponsored by the Research and Independent NGOs constituency, Moravian College (Pennsylvania, USA), Washington University of St. Louis (Missouri, USA) and the Independent University, Bangladesh:

Researchers from academia, non-profits and think-tanks are engaged in research, capacity building, and education. This session will highlight evidence-based case studies of such practices that advance climate action and promote the effective and lasting implementation of the Paris Agreement.

We want to highlight contributions of the research community in the implementation of the Paris Agreement, focusing on how researchers from academia, non-profits and think-tanks are engaged in research, capacity-building, and education. We are particularly interested in sharing evidence-based case studies of practices that advance implementation of climate action and problem solving.  Models of how to collaboratively engage colleges and universities in strengthening climate resilience capacities.  We also want to allocate time for audience participation and sharing.

Our goals for the session including discussions on the following:

* How education equips undergraduate and graduate students to understand research and implementation needs with respect to climate change.
* How research needs and gaps are identified (or not).
* How that research is translated to implementation (with specific case studies).
* Examples of how members of the research community are advancing provisions of the Paris Agreement.

Panelists (not in order):

Beth Martin: The Research Community – Teaching for Climate Action and Implementation of the Paris Agreement

Researchers from academia, non-profits and think-tanks are engaged in research, capacity building, and education. Beth will highlight how education develops the next cadre of climate change researchers and professionals who will advance effective implementation of the Paris Agreement.

Saleem Huq: Engaging universities in strengthening climate resilience capacities
Sustainable capacity building as a means for implementing climate resilient development strategies is underscored in the Article 11 of the Paris Agreement. Saleem will share the activities of LUCCC and UNCC networks to highlight role of Universities in enhancing climate resilience capacities.

Neil Jennings: I will provide a specific case study of my experience as a PhD researcher at the Tyndall Centre from 2004-2008 where I set up a behaviour change campaign called the [Student Switch Off](http://studentswitchoff.org/) alongside my studies – taking the learning from my studies and expertise of my colleagues and putting them into practice in a way that encouraged climate action among students. The campaign grew into a not for profit business that now runs Student Switch Off in 8 countries around Europe and has engaged over 1.1million students in climate action over the last 12 years and saved over 15,000 tonnes of CO2 in the process.

I can also share insights from a project called Responsible Futures, run by my former employer the National Union of Students, that attempts to integrate the Sustainable Development Goals across the curriculum of various universities around the UK. They also run a [SDG Teach-in](https://sustainability.nus.org.uk/responsible-futures/esd-teach-in/home) where lecturers and teaching staff across UK universities and colleges pledge to include the Sustainable Development Goals (SDGs) within their teaching, learning, and assessment on their course(s) over the course of a particular week. This was run for the first time in Feb 2018 and I believe they are looking to make it bigger and better for 2019 – including expanding beyond the UK so it would be a nice example to share that countries around the world could get involved with.

Val Kapos: UNEP

Includes work of Dr Hannah Reid

Research Associate with the Climate Change Group and Biodiversity Team

International Institute for Environment and Development

We will share the results of our research project on improving the evidence base for ecosystem-based adaptation and using research results to influence policy that supports Paris agreement implementation. I do hope you can find space for us in the side event. This [website](https://url6.mailanyone.net/v1/?m=1gJyTo-000UoD-5m&i=57e1b682&c=PTdKZB09qsO-lS1LeRliWWRz71DwzbGZw4xDzqWyZm7jb_5IzHDPz9dp2zl4_dH4vxDcrF7nOmO-aQjkOvyK3FcHgioAe-B3wpJkLJbfsjpIGETixIQkUXvalcCPL1jolvRCRvgy1j0mpDqS3sUTY_ntQ0UDjgK3qm9u9ufzlndpQXfFJsxCrQlC8-rdLbsG6X-S_Maayek4-bJkTsPK9Z8SY2Y6agTCAvlFz26yTVfZ7MdydpwMcTKqLxqZVXANxOIy3KSI9fy1hUSVAPFban7z-GbJfMVFwFGaPXx6oz4) describes the research project in more detail (<https://www.iied.org/ecosystem-based-approaches-climate-change-adaptation>)

Bruce Currie-Alder from IDRC (proposed by Hingman Leung)

International Development Research Centre | Centre de recherches pour le développement international (Ottawa)

IDRC funds research in developing countries to support evidence-based decision making and to test and scale climate adaptation solutions. A core part of our work is in capacity building and local stakeholder education. Mr. Currie-Alder is IDRC’s lead on one of our flagship climate change programs, Collaborative Adaptation Research Initiative in Africa and Asia.

More than one billion people live in deltas, semi-arid lands, and glacier-dependent river basins, hot spot regions that are the most vulnerable to climate change. Since 2014, the Collaborative Adaptation Research Initiative in Africa and Asia ([CARIAA](http://cariaa.net/)) supported four consortia to build resilience in these hot spots, supporting research that informs adaptation policy and practice. This experience demonstrates:

•                    A ‘**policy first**’ approach to identify knowledge gaps and to craft research agendas on the demand of decision makers;

•                     ‘**Research for impact’** that informs and assists communities, businesses, and governments (such as through integrated modeling to support Bangladesh’s delta plan 2100 or assessing value-chains in semi-arid lands to identify investment opportunities).

•                    Opportunities for **graduate students** to understand research and implementation needs with respect to climate change (such as field schools in deltas of the western Indian Ocean); and

•                    **Embedding research** into climate action, advancing the Paris Agreement by  accompanying real-world policy implementation and investments to help society learn faster than the climate is changing.

Johanna Nalau: Lecturer in Environmental Policy

IPCC AR6 Lead Author Chapter 15, Working Group II <http://www.ipcc.ch/report/authors/authors.php?q=36&p=15>

Griffith Climate Change Response Program (GCCRP) and Griffith Institute for Tourism (GIFT), School of Environment and Science, Griffith University  | Gold Coast Campus | QLD 4222 |

**Adaptation Science, Indigenous Knowledge and the Paris Agreement: Opportunities and Challenges**

Adaptation to climate change is an urgent and pressing challenge, as outlined by Article 7 of the Paris Agreement. Universities are uniquely placed not just only to provide evidence-based information for the implementation of the Paris Agreement but also in building capacity on the ground to do so (Morgan et al., 2017).

There has been substantial focus on adaptation efforts in developing countries, as these are facing significant impacts of climate change and are perceived to lack the capacity necessary to adapt. Crucially, many of these countries lack the scientific resources, such as equipment, data, and access to existing knowledge, to address the complex issue that climate change can present.

Universities are well-placed to provide resources such resources and also to engage with communities in trying to better understand their vulnerabilities, adaptive capacity, and adaptation preferences. In addition, there is a wealth of Indigenous, Traditional and Local knowledge that can support climate change research. In many places NAPA process explicitly draw on such knowledges to address some of the scientific knowledge gaps. The importance of this knowledge has long been recognised in some fields, although including it within ‘traditional’ scientific processes remains a challenge.

This presentation will focus on how research at Griffith University has been progressing the implementation of the Paris Agreement through its work on EcoAdapt in the Pacific (harnessing knowledge for implementation of adaptation actions; <https://www.griffith.edu.au/research/research-excellence/griffith-climate-change-response-program/ecoadapt-pacific> ), and Tropical Primary Forests and Climate Change (<https://www.griffith.edu.au/research/research-excellence/griffith-climate-change-response-program/primary-forests-protection> ). Both of these projects have provided to date invaluable lessons on how to collect empirical evidence in data poor environments to support national and local policy and actions relevant to climate change.

Dr Nalau will present case studies from Vanuatu and Samoa. The case study from Vanuatu focuses on the role of women and Indigenous and Traditional Knowledge in particular in community-led engagement in adaptation on the island of Tanna, Vanuatu, and how identifying capacity building needs and knowledge gaps better could support also universities and governments in finding ways to develop robust proposals to access climate finance. She will also share some early insights from a case study from Samoa regarding the implementation of ecosystem-based adaptation projects, and how gendered knowledge can enhance the implementation of adaptation actions on the ground, and at broader policy scales, and also identify locally important capacity building needs.

Angel Hsu: *Director of Data-Driven Yale, Assistant Professor of Environmental Studies at Yale-NUS College and Adjunct of the Yale School of Forestry & Environmental Studies*

**New Tools to Track Global Climate Action,**

In addition to national governments, cities, states and regions (i.e., subnational actors), as well as business, investors and civil society (i.e., non-state actors) played a pivotal role in helping deliver the Paris Climate Agreement. Their efforts formed its “fourth pillar,” alongside the negotiated text, countries’ (Intended) Nationally Determined Contributions, and finance commitments. Subnational and non-state actors will also play a fundamental role in helping deliver the Agreement, by catalyzing, implementing, and innovating climate actions. In some cases, their efforts go beyond or are more ambitious than national governments’ commitments.

Quantitatively assessing and tracking these efforts, however, is fraught with difficulties. Transparent, accurate, and timely data to track and evaluate their impact is often scarce. Where data are available, they are often inconsistent and incomplete. Available data are also biased towards actors located in developed countries, leading to major knowledge gaps in emerging economies and developing countries whose climate emissions already outpace their industrialized counterparts.

Data-Driven Yale, a team of interdisciplinary researchers, has made some major headway in tracking climate action by establishing the world’s most comprehensive database, including that over 15,000 actors taking over 96,000 actions to mitigate, adapt to, or respond to climate change. Its latest report, *Global climate action of cities, regions, and businesses*, created with the NewClimate Institute and PBL Netherlands Environmental Assessment Agency, represents the most comprehensive quantitative assessment of these commitments ability to reduce greenhouse gases at the global scale. It was featured at the 2018 Global Climate Action Summit in San Francisco and covered by media outlets including *The Economist, The Guardian, Los Angeles Times, Washington Post*, and others.

During her remarks, Dr. Hsu would discuss the role of subnational and non-state actors within global climate governance and the latest findings on their impact on greenhouse gas reductions at the global scale. She would also speak to the tools and next steps that may help sharpen the understanding of these commitments’ implementation and impact, though blockchain and distributed ledger technology and design sprints.