

# Student Global Climate Change



ASSOCIATION OF PACIFIC RIM UNIVERSITIES

#### A Network With Impact

As a network of leading universities linking the Americas, Asia, and Australasia, APRU (the Association of Pacific Rim Universities) brings together thought leaders, researchers, and policy-makers to exchange ideas and collaborate on practical solutions to the challenges of the 21st century.

We leverage our members' collective education and research capabilities into the international public policy process. In the post-pandemic era, our strategic priorities focus on:

- 1. providing a neutral platform for high-level policy dialogue,
- 2. taking action on climate change, and
- 3. supporting diversity, inclusion, and minorities.

APRU's primary activities support these strategic priorities, focusing on critical areas such as disaster risk reduction, women in leadership, indigenous knowledge, virtual student exchange, population aging, global health, sustainable cities, artificial intelligence, waste management, and more.

#### Global Health Program

The APRU Global Health Program aims to leverage the global health education and research of Asia-Pacific universities to address global health issues through interaction with public policy and media.

Since its launch in 2007-2008, the program has covered a significant range of topics including emerging public health threats, aging and chronic diseases, infectious diseases and health security issues.

It has recently engaged academics, policy leaders, media specialists and communities on non-communicable diseases and on global health issues on campus. The program is hosted by the USC Institute on Inequalities in Global Health and has an advisory group coordinating the program.

#### Sustainable Cities and Landscapes Program and Research Hub

The University of Oregon, an international leader in sustainable urban design and landscape planning through its renowned Sustainable Cities Initiative and its Department of Landscape Architecture, is hosting the APRU Sustainable Cities and Landscapes Program and Research Hub.

The Program and Hub works within the framework of the Voice of Knowledge and Innovation for the Asia-Pacific region and aims to engage with cross-disciplinary experts, government officials and non-governmental organizations to consider cities in the context of their many landscape interdependencies, including services, networks and systems within and beyond the urban periphery. It will harness the breadth of experiences and socio-ecological contexts across the Pacific Rim to compare existing practices and models of city-landscape interactions, and to initiate solutions and policy interventions to make entire city-landscape complexes more sustainable.



# STUDENT GLOBAL CLIMATE CHANGE SIMULATION

The APRU Student Global Climate Change Simulation is a role-playing exercise in which students will form multi-country, multi-disciplinary teams to play the role of delegates to the UN Climate Change Negotiations.

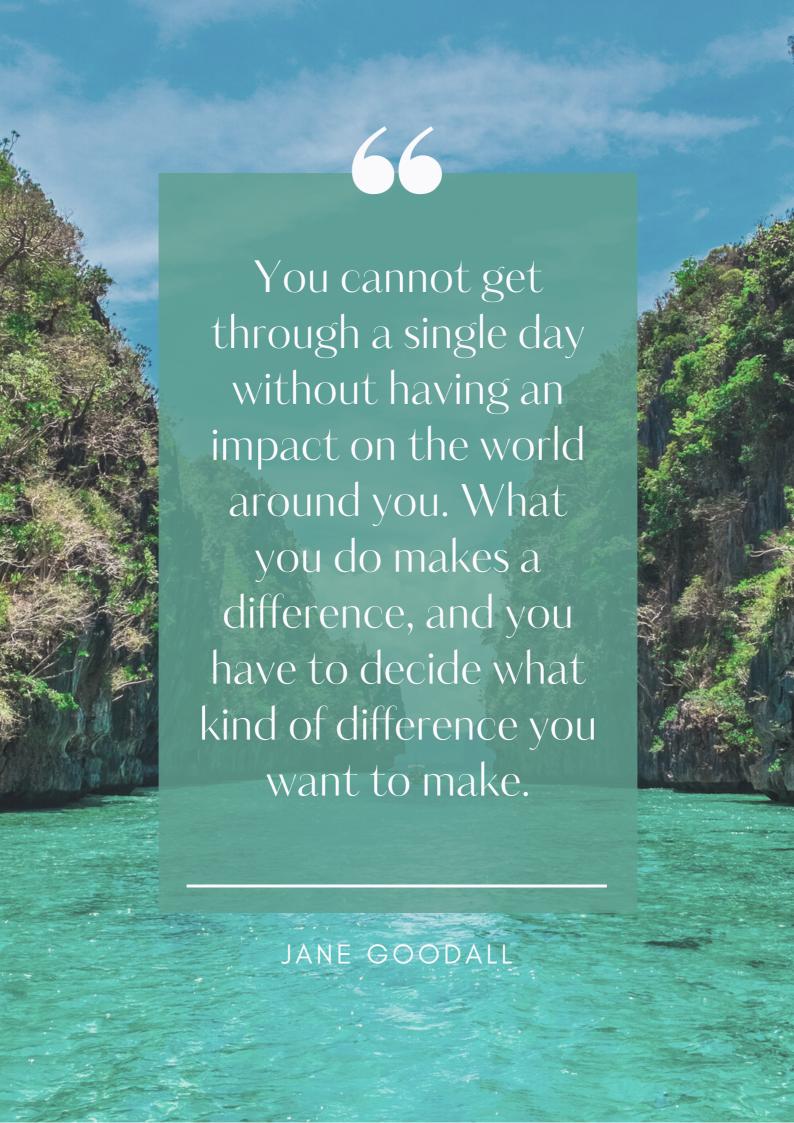
Over three sessions, we will hold an online simulation activity using materials from the World Climate Interactive and the C-ROADS simulation model developed by MIT. These live sessions will be supplemented with short lectures and other materials developed and curated by the APRU experts, which will be available on a shared Canvas website. To learn more, visit the World Climate Simulation.

Students will be assigned to international teams (students from various universities). Teams will be assigned one of six (6) countries/regions. Over two (2) rounds of discussions and negotiations, teams will participate in breakout rooms facilitated by international experts in climate science. In addition, teams will hear perspectives from experts on topics such as indigenous knowledge, planetary health, public health, coastal habitats, deforestation, clean energy, trading and offsets, and diplomacy and negotiation skills.

Teams will discuss the human and environmental effects of climate change, as well as the economic impact that countries/regions consider in determining their position and global commitments.

The APRU Student Global Climate Change Simulation is co-organized by APRU Sustainable Cities and Landscapes Program housed at University of Oregon and APRU Global Health Program housed at University of Southern California.

Partner universities include Fiji National University, Keio University, Korea University, Monash University, Nagoya University, Nanyang Technological University, National Taiwan University, National University of Singapore, Peking University, Tecnológico de Monterrey, The Chinese University of Hong Kong, The Hong Kong University of Science and Technology, The University of Auckland, The University of Melbourne, The University of Sydney, Tohoku University, Universidad de los Andes, Universidad San Francisco de Quito, Universiti Malaya, University of Hawaii and University Washington.



## OPENING CEREMONY | KICKOFF April 11

6:00pm - 6:10pm	Welcome by Mellissa Withers, University of Southern California and Eleanor Vandegrift, University of Oregon
6:10pm - 6:15pm	Thomas Schneider, APRU
6:15pm - 6:35pm	Mozaharul Alam, UN Environment Programme
6:35pm -6:55pm	Myriam Merchant, World Business Council for Sustainable Development
6:55pm - 7:15pm	Q & A
7:15pm - 7:25pm	"Simulation 101" by Eleanor Vandegrift & Dennis Galvan, University of Oregon
7:25pm - 7:45pm	"The Simulation Worksheet Components" by Kristie Ebi, University of Washington
7:45pm - 7:55pm	Wrap-up
7:55pm - 8:30pm	Team Meetings in Breakout Rooms (move to Blue, Green or Orange Rooms)

#### Day 1 | April 18

6:00pm - 6:05pm Welcome by Eleanor Vandegrift, University of Oregon

6:05pm - 6:30pm Rhys Jones, University of Auckland

6:30pm - 6:55pm Ralph Chami, IMF/Rebalance Earth/ Blue Green Future

6:55pm - 7:00pm Move to Breakout Rooms (Green/Blue/Orange Rooms)

7:00pm - 7:20pm Position Report and proposed commitments from each delegation

7:20pm - 7:40pm 1st Round of Pledges, Short Lecture by Executive Secretary of UNCCC

7:40pm - 8:00pm Closed Meetings for each delegation with one expert facilitator

8:00pm - 8:25pm Negotiations with other delegates (each team can send delegates to other rooms to negotiate)

8:25pm - 8:30pm Wrap-up Day 1

#### Day 2 | April 25

6:00pm - 6:05pm Welcome by Mellissa Withers, University of Southern California

6:05pm - 6:45pm Special Topic Discussions with experts Each team can send 1-2 reps to each room

- Clean Tech Industry
- Oceans
- Forests
- Population Dynamics
- Climate Migration
- Trading and Offsets

6:45pm - 7:25pm Back to country rooms for closed delegate sessions. Start with share-out about 6 topics (5 mins each)

7:25pm - 7:40pm Final discussions and pledges

7:40pm - 7:55pm Discussion of results of 2nd round of pledges by Executive Secretary of the UNCCC

7:55pm - 8:30pm Debrief/reflections and conclusions

## OPENING CEREMONY | KICKOFF April 12

9:00am - 9:10am	Welcome by Mellissa Withers, University of Southern California and Eleanor Vandegrift, University of Oregon
9:10am - 9:15am	Thomas Schneider, APRU
9:15am - 9:35am	Mozaharul Alam, UN Environment Programme
9:35am - 9:55am	Myriam Merchant, World Business Council for Sustainable Development
9:55am - 10:15am	Q & A
10:15am - 10:25am	"Simulation 101" by Eleanor Vandegrift & Dennis Galvan, University of Oregon
10:25am - 10:45am	"The Simulation Worksheet Components" by Kristie Ebi, University of Washington
10:45am - 10:55am	Wrap-up
10:55am - 11:30am	Team Meetings in Breakout Rooms (move to Blue, Green or Orange Rooms)

#### Day 1 | April 19

9:00am - 9:05am

Welcome by Eleanor Vandegrift, University of Oregon

9:05am - 9:30am

Rhys Jones, University of Auckland

9:30am - 9:55am

Ralph Chami, IMF/Rebalance Earth/ Blue Green Future

9:55am - 10:00am

Move to Breakout Rooms (Green/Blue/Orange Rooms)

10:00am - 7:20am

Position Report and proposed commitments from each delegation

10:20am - 10:40am

1st Round of Pledges, Short Lecture by Executive Secretary of UNCCC

10:40am - 11:00am

Closed Meetings for each delegation with one expert facilitator

11:00am - 11:25am

Negotiations with other delegates (each team can send delegates to other rooms to negotiate) Day 2 | April 26

9:00am - 9:05am

Welcome by Mellissa Withers, University of Southern California

9:05am - 9:45am

Special Topic Discussions with experts Each team can send 1-2 reps to each room

- Clean Tech Industry
- Oceans
- Forests
- Population Dynamics
- Climate Migration
- Trading and Offsets

9:45am - 10:25am

Back to country rooms for closed delegate sessions. Start with share-out about 6 topics (5 mins each)

10:25am - 10:40am

Final discussions and pledges

10:40am - 10:55am

Discussion of results of 2nd round of pledges by Executive Secretary of the UNCCC

10:55am - 11:30am

Debrief/reflections and conclusions

11:25am - 11:30am Wrap-up Day 1



### Universities and Partners

































































## OPENING CEREMONY SPEAKERS



Mellissa Withers

Dr. Mellissa Withers is Associate Professor at the Keck School of Medicine in the Department of Population and Public Health Sciences. She is also the director of the Global Health Program of the Association of Pacific Rim Universities. She received a PhD from the Department of Community Health Sciences at the UCLA Fielding School of Public Health with a minor in cultural anthropology. She also earned a Master's in International Health from the Johns Hopkins Bloomberg School of Public Health and a BA in international development from UC Berkeley. Her research interests lie in community participatory research, mental health, gender-based violence, immigrant health, and global sexual and reproductive health. Dr Withers is the editor of two books: Global Perspectives on Sexual and Reproductive Health Across the Lifecourse, and Global Health Leadership: Case Studies from the Asia-Pacific. She has also published more than 50 scientific articles and serves on the editorial boards of six international global health journals. She also writes a blog on human trafficking titled Modern-Day Slavery for Psychology Today.

Eleanor "Elly" Vandegrift is the Program Director for Global Science Education Initiatives and Senior Instructor II in the Global Studies Institute part of the Division of Global Engagement at the University of Oregon. Trained as an ecologist, she has biology courses and led science education professional development, for which she has received several teaching awards. With global partners she develops and facilitates customized STEM education programs for faculty and student experiences and internships. Elly graduated from Earlham College and completed her graduate work at Oregon State University.



Eleanor Vandegrift



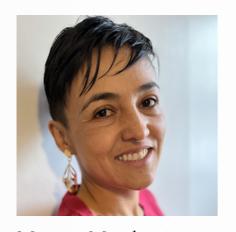
Thomas Schneider

Dr. Thomas Schneider is the Chief Executive of the Association of Pacific Rim Universities. A native of Germany, Prof. Schneider studied at the University of Zurich, the University of Basel and the École Pratique des Hautes Études in Paris. He earned his degrees (Lizentiat 1990; Dr. phil. 1996; Habilitation 1999), all in Egyptology, from the University of Basel. Throughout his career, he has held academic and administrative positions in four global regions - North America; Asia; Europe; the Middle East. He was a Lecturer in Egyptology at the University of Zurich (2000-3), a Junior Research Professor of the Swiss National Science Foundation at the University of Basel (2001-5), Professor and inaugural holder of the Chair in Egyptology at Swansea University, Wales (2005-7), before joining the University of British Columbia. He held Visiting Professorships at the University of Vienna (1999), the University of Heidelberg (2003-4) and the Hebrew University of Jerusalem (2018). He was a Visiting Scholar at New York University (2006), the University of California, Berkeley (2012), the Institute of Archaeology of the Chinese Academy of Social Sciences in Beijing (2016) and Shanghai University (2018, International Masters Program). And from 2018-20, Prof. Schneider served the Southern University of Science and Technology (SUSTech) in Shenzhen, China's fastest-rising new STEM university, as Associate Vice President (International), spearheading its internationalization efforts. Recently, Prof. Schneider has founded PALAC - a new consortium of liberal arts colleges focused on experimental learning in the liberal arts across multiple economies in Asia and North America. His own scholarship (160 publications, among which 7 authored books and 7 edited books) focuses on cultural and linguistic interconnections in the Near East, the environmental history of Egypt, and the history of the humanities in Nazi Germany.

Mozaharul Alam started his professional career as a young researcher with Bangladesh Centre for Advanced Studies (BCAS) in 1992. His areas of specialization are in adaptation and low carbon development to climate change, integrating climate change into development planning, and international negotiations. He has served the Ministry of Environment and Forests, Government of Bangladesh as a National Project Coordinator and has successfully undertaken inclusive process and formulated National Adaptation Programme of Action (NAPA). He attended climate change negotiations for more than a decade and coordinated the adaptation group of G77 and China during 2007 to 2009. He also worked as Lead Author for Working Group II for IPCC Fifth Assessment Report. He received an international fellowship from International Institute for Environment and Development (IIED) under the Climate Change Programme for three years in 2006. In 2009, he joined the United Nations Environment Programme (UNEP) as a Regional Coordinator, Climate Change for Asia and the Pacific Office, providing strategic and political guidance to design and implement climate actions in the region.



Mozaharul Alam



Myriam Merchant

With over twenty years of experience operating in fast-paced and complex environments, Myriam is a seasoned sustainability professional working at the intersection of business and sustainable development. After spending a year supporting startups in setting up their sustainability strategies and value propositions, Myriam returned to WBCSD North America where she has worked since 2017, supporting strategy implementation, member outreach, and policy and advocacy support for members. Before WBCSD, Myriam dedicated most of her professional journey to working with the United Nations, national and decentralized governments in Central and Latin America, International Government Organizations, and global NGOs, managing regional networks and executing large-scale sustainable development projects and grants.

As a skilled stakeholder and knowledge manager with insight and knowledge of the private, public, and philanthropic sectors, she leverages her strategy, relationship management, and communication skills to advance cross-sector collaboration efforts that enable economic, environmentally sustainable, and socially fair solutions.

Dr. Dennis Galvan is Dean and Vice Provost for the Division of Global Engagement, Vice Provost for Strategic Initiatives, and Professor of Political Science and Global Studies at the University of Oregon. A political scientist by training, Dr. Galvan has conducted extensive field work in rural Senegal and in Indonesia, and his research focuses on how ordinary people implement creative tactics to dismantle and reorganize institutions designed to promote development. This experience influences his work as a university administrator, as he implements the lessons learned about everyday institutional creativity from his field work. Dr. Galvan works with colleagues to carefully and creatively improve university structures to make higher education more resilient and able to respond with agility to changing circumstances. Dr. Galvan received his Ph.D. from U.C. Berkeley and his A.B from Stanford University.



Dennis Galvan



Kristie Ebi

Dr. Kristie L. Ebi has been conducting research and practice on the health risks of climate variability and change for 25 years. Her research focuses on understanding sources of vulnerability; estimating current and future health risks of climate change; designing adaptation policies and measures to reduce the risks of climate change in multi-stressor environments; and quantifying the health co-benefits of mitigation policies. She has worked with multiple countries in Africa, Central America, Europe, Asia, and the Pacific in assessing their vulnerability and implementing adaptation measures. She is a lead author for the human health chapter of the Intergovernmental Panel on Climate Change (IPCC) 6th assessment report, and was a lead author on the IPCC special report on warming of 1.5°C, and the 4th US National Climate Assessment. She co-chairs the International Committee On New Integrated Climate Change Assessment Scenarios (ICONICS), facilitating development of climate change scenarios. Her scientific training includes an M.S. in toxicology and a Ph.D. and a Master of Public Health in epidemiology, and two years of postgraduate research at the London School of Hygiene and Tropical Medicine. She has edited four books on aspects of climate change and has more than 200 peer-reviewed publications.

#### DAY 1 speakers



Ralph Chami

Dr. Ralph Chami is currently Assistant Director and Chief of Financial Policies Division in the Institute for Capacity Development at The International Monetary Fund. He developed the internal training curriculum for IMF economists as well as revamped the external training curriculum of member countries. Between 2009 and 2014, he oversaw the Regional Studies Division covering 32 countries in the Middle East and Central Asia Department, and Mission and Division Chief for Fragile states such as Egypt, Libya, Yemen, Sudan, South Sudan, and Somalia. He is the recipient of the 2014 IMF Operational Excellence Award for his field work on fragile states. His book "Macroeconomic Policy in Fragile States," co-edited with Raphael Espinoza and Peter Montiel, was published by Oxford University Press in March 2021. Before joining the IMF, Ralph was on the faculty of Finance Department, Mendoza Business School at the University of Notre Dame, USA. Ralph has a BS from American University of Beirut, MBA in finance and statistics from the University of Kansas and a Ph.D. in Economics from The Johns Hopkins University. His areas of expertise include fragile and conflict-affected states, climate change, remittances and migration, financial markets and banking.

Dr. Rhys Jones (Ngāti Kahungunu) is a Public Health Physician and Senior Lecturer in Māori Health at the University of Auckland, Aotearoa/New Zealand. His research addresses Indigenous health and health equity with a particular focus on environmental influences on Māori health and wellbeing. He is a passionate advocate for action on the social determinants of health, equity and Indigenous rights. Rhys was the founding Co-Convenor of OraTaiao: The New Zealand Climate and Health Council, a health professional organisation focusing on the health challenges of climate change and the health opportunities of climate action.



Rhys Jones



Zhenyu Zhang

Dr. Zhenyu Zhang received his Ph.D. in Epidemiology from Zhejiang University School of Public Health in 2016. He finished the post-doc training from the Department of Epidemiology at Johns Hopkins University Bloomberg School of Public Health from 2016-2021. Dr. Zhang is currently an assistant professor at the Department of Global Health of Peking University School of Public Health. Dr. Zhang's work is focused on the study of the adverse health effects of air pollution, in particular in evaluating the role of environmental exposures in the development of cardiovascular disease. Dr. Zhang has published seminal papers showing that particulate matter air pollution exposure has a measurable impact on cardiovascular risk factors, clinical outcomes, and mortality.

In addition to his work in environmental epidemiology, Dr. Zhang has made important contributions in estimating the individual air pollution exposure with statistical models. Dr. Zhang uses novel machine-learning approaches that incorporate meteorological measurements, land-use terms, satellite-based measurements, and simulation outputs from a chemical transport model to estimate daily concentrations of PM2.5 in China, the United States, and South Korea. Dr. Zhang examines biologic risk factors as well as innovative epidemiologic methods and statistical analysis in the conduct of air pollution-health research. The ultimate objective of Dr. Zhang's work is to decrease the enormous burden of air pollution-related diseases through developing the scientific basis for behavioral and policy interventions.

Dr. Shannon Gibson teaches courses and conducts research on global environmental politics, global public health, social movements, social justice, and community-based research. She received her Ph.D. in International Studies from the University of Miami in 2011. As a participant-action researcher she focuses on the role of disruptive politics and social movements in climate and health governance. In her dissertation, "Dynamics of Radicalization: The Rise of Radical Environmentalism against Climate Change," she conducted field and participant observation research at a variety of international summits, including World Social Forums in Brazil and Senegal, the 2010 G20 Summit in Pittsburgh, and the United Nations climate negotiations in Copenhagen and Cancun. Additionally, Dr. Gibson works to engage students in active and experiential learning by teaching abroad from her research travels, such as the UN climate talks in Paris and Bonn, and by leading Problems without Passports classes. She also runs interactive Model United Nations simulations in her courses based around real-life climate negotiations and World Health Assembly meetings.



Shannon Gibson



Vivian Lee

Dr. Vivian Lee is currently Associate Professor of the Center for Learning Enhancement And Research (CLEAR) at the Chinese University of Hong Kong. Professor Lee received her Bachelor of Sciences degree in Biochemistry at the University of California, Los Angeles (UCLA) and her Doctor of Pharmacy degree in the School of Pharmacy, University of Southern California (USC). After completion of her pharmacy training, she had pursued post-doctoral training in Pharmacy Practice residency for one year at the Huntington Memorial Hospital in Pasadena, USA. Her specialty is in clinical pharmacy in particular to cardiovascular medicine. She is also a certified Specialist by the Board of Pharmaceutical Specialties (US) in Pharmacotherapy and added qualification in cardiology pharmacotherapy. She is also the fellow of the Hong Kong College of Pharmacy Practice and the senior fellow of the United Kingdom Higher Education Academy. Professor Lee is a clinician-scientist of clinical pharmacy outcomes research to chronic cardiology disease management utilizing the skills of clinical pharmacy, pharmacoeconomics, and interprofessional education to improve patient care.

She has 153 full papers and 250 abstract publications. She has received numerous teaching and research awards including the Faculty Education Award (2018), the University Education Award (Highest Award on Education at the Chinese University of Hong Kong) 2014, Vice Chancellor's Exemplary Award 2010 and Master Teacher Award 2012 at the Chinese University of Hong Kong. In 2021, she is awarded with the 10th Health Medical Research Fund Anniversary award to recognise her sustainable and translational research in health promotion. In addition to her passion in pharmacy research and teaching, Professor Lee also cares about the underprivileged and needy patients in the community. She has established the first interprofessional community outreach team (CU CHAMPION) and served over 50,000 elderly citizens in Hong Kong. This was converted to a 1unit summer elective interprofessional education course staring in summer 2018. Professor Lee also launched the first interactive online drug information (AMPOULE) to address drug-related problems for patients worldwide. To date, AMPOULE has accumulated over 45 million hits with an average daily hit of over 9,000 serving patients from 17 origins. She is also the country leader for multiple international collaborative projects including the May Measurement Month organized by the International Society of Hypertension and the Atrial Fibrillation Awareness Month organized by the Atrial Fibrillation Alliance.

Dr. Catalina González Arango is an associate professor in the Department of Biological Sciences at the Universidad de los Andes in Bogotá, and currently leads the research group in Tropical Paleoecology and Palynology (PALEO). With over 15 years of experience, her research seeks to understand the long-term paleoecological and paleoclimatic history of tropical ecosystems from Northern South America as a result to the interaction among human societies, climate changes and biogeographic and geologic processes.

As part of the transdisciplinary Portafolio of Historical Ecology and Social Memory (EHMS), Catalina explores the biological aspects of the volcanic territories at different time-space scales. She is interested in studying the complex interactions among geological, ecological and human processes occurring in such territories, particularly to track the natural trajectories after disturbance, to address the resilience of Andean forests, and to establish relationships between geodiversity, biodiversity and cultural diversity.



Catalina González Arango



Gitanjali Bedi

Dr. Gitanjali Bedi is a senior lecturer and educational researcher with Monash Sustainable Development Institute, Monash University. She is responsible for design and implementation of formal accredited post graduate and undergraduate courses and extra-curricular education initiatives on sustainable development (responsible business practice and innovation, organisational sustainability, climate change, sustainable healthcare, environmental sustainability, SDGs, leadership). Her research interests include: sustainability education, transformative pedagogy, planetary health education, climate change and tertiary institutions, and workforce upskilling.

Gitanjali has worked all over the world with organisations including United Nations Development Program (Afghanistan, Latin America, Central & South East Asia), IUCN (Switzerland), LEAD International (UK), Swinburne University of Technology (Australia) and Navdanya (India) - working alongside corporates, governments, and not-for-profits to build the transformative change and leadership capacities of people, organisations and business to create positive impact. Gitanjali holds graduate qualifications in Corporate Environmental and Sustainability Management (Monash), Education and Training for Sustainability (Swinburne) and International Community Development (Massey, New Zealand). She was trained by former US Vice-President Al Gore as part of the Climate Reality Leadership Project. In 2019, Gitanjali was recipient of Vice-Chancellor's Citation for Outstanding Contribution to Student Learning (Monash University), and in 2021, Australian Award for University Teaching.

#### **FACILITATORS**

Dr. Nasrin Aghamohammadi is an Associate Professor of Environmental Health Engineering and Public Health Expert, University of Malaya, Kuala Lumpur, Malaysia. Currently, she is heading the Occupational and Environmental Health Unit. Her areas of expertise revolve around multidimensional aspects of Biomass Burning, Air Pollution, Environmental Health and Urban Heat Island studies. She has an extensive background in pure and applied environmental engineering research associated with air, water, wastewater, solid waste and soil pollutants. She has published many impactful peer-reviewed journal articles and books on forest fires and Climate Change, UHI, Thermal Comfort, waste treatment and health impacts. She is an associate editor of the journal International Journal of Sustainable Cities and Societies. This strategic collaboration has enabled her to communicate her research knowledge and findings at various levels of stakeholders for the development standard guidelines and policy improvements. Her research focus is mainly on Sustainable Development Goals (Goals 3,6,7, 11 & 13).



Nasrin Aghamohammadi



Ye Chen

Dr. Chen Ye is an Assistant Professor at Department of Chemistry, The Chinese University of Hong Kong. She obtained her bachelor and Ph.D. degrees in Materials Science and Engineering from Nanyang Technological University, Singapore, in 2015 and 2019, respectively. During her undergraduate studies, she was selected into the Leadership Excellence Programme for three consecutive years by the School of Materials Science and Engineering. Dr. Chen started her independent research career in Hong Kong since 2020. Her current research focuses on nanoscience and applications of nanomaterials in clean energy, such as developing new nanocatalysts to utilize excessive atmospheric carbon dioxide and promote efficiency of future-generation fuel cells. She has been actively presenting her research findings by publishing in international and peer-reviewed journals and giving talks in international conferences. Her work was selected into the "Emerging Investigators 2021" special theme by Journal of Materials Chemistry A.

Dr. Luis R. Fernández Carril is a researcher in climate change ethics and policy. He has been a professor at Tecnológico de Monterrey since August 2014. He currently serves as Sustainability and Climate Change Coordinator within the Vice-Presidency of Inclusion, Social Impact and Sustainability at Tecnológico de Monterrey in Monterrey, Mexico.

He served as legislative advisor and later as Chief of Staff of the Special Commission on Climate Change of the Senate of Mexico, from 2015-2018. Previously, he was a researcher and international liaison in the Climate Change Research Program at the National Autonomous University of Mexico 2014-2017. He recently participated as lead author for the United Nations Intergovernmental Panel on Climate Change (IPCC), Working Group II, for the 6th Assessment Report in the chapter dedicated to "Climate Resilient Development Pathways".

Regarding his work in the field of research, his main lines of research are: environmental governance and international climate negotiations, adaptation and resilience to climate change, environmental ethics, climate justice and education for sustainable development.



Luis R. Fernández Carril



Joshua Cooper

Joshua Cooper is an academic, advocate, author, analyst and activist based in Hawaii. He has created, crafted, and coordinated 60 unique courses in Political Science, Journalism and Peace Studies, drafting and delivering curriculum for over 100 plus classes in two decades at the University of Hawaii. Joshua also offers impactful instruction for the University of New South Wales Diplomacy Training Program, covering International Human Rights Law; Business & Human Rights; Climate Justice & Sustainable Development; Indigenous Peoples Struggle for Self-Determination; and Traditional/Social Media Strategy for Social Change.

Joshua holds positions of Senior Global Advocacy Manager; Senior Policy Counsel International Advocacy; Senior Director of Communications & Community Engagement; Senior Director of Global Governance & International Initiatives; Senior Director of Research, Policy & Law with multiple peoples movements, NGOs, and human rights defenders associations. He is a human rights advocate engaging in global and regional mechanisms guaranteeing fundamental freedoms. He has participated as an official observer at United Nations meetings in both the charter and treaty bodies of the human rights machinery for over two decades.

Joshua is active in the development and climate change advocacy. He has attended the UN Framework Convention on Climate Change Conferences of Parties from Copenhagen through Paris, including current Talanoa initiatives. He has participated in the negotiations from the Rio+20 Summit to the adoption at the UN General Assembly of the UN Sustainable Development Goals. He also advises Major Groups and Other Stakeholders in the UN Voluntary National Reviews for the High Level Political Forum and is mobilizing subnational initiatives, such as Voluntary Local Reviews spearheaded by cities.

Vanessa Friedman is an Assistant Lecturer with the Medical Education Research and Quality unit at the School of Public Health and Preventive Medicine (SPHPM) at Monash University. She currently works as an education-focused academic and teaches across a wide range of public health fields including human development, sociology, anthropology, politics, epidemiology and pharmacology. She has delivered content exploring the impact of climate change on human health, with a strong focus on how this phenomenon disproportionately impacts vulnerable populations around the world.

Through her studies and research experience, Vanessa has developed a strong appreciation for both clinical and social perspectives of health. After completing her Bachelor of Biomedical Science, she went on to do her Honours research project with the Young People's Health team at the Burnet Institute in 2019. For this, she produced a literature review and a thematic analysis of online forum responses to explore how the health behaviours of Australian young adults were being impacted by social media. She now works with the Gambling and Social Determinants Unit at the SPHPM and provides research support for a project exploring paradigmatic bias in gambling research.



Vanessa Friedman



Yi-Huan Hsieh

Dr. Yi-Huan Hsieh (Ph.D., National Taiwan University) is a project assistant professor at the International Degree Program in Climate Change and Sustainable Development at National Taiwan University. His research interests include Tropical cyclone formation (Tropical cyclogenesis), Nurmical modeling, and Flood early warning system. Recent work and collaborations include Low-costing environment sensing, Student-Centered Learning Strategies, and Earth science education. Dr. Hsieh participates in several Academic unions and non-governmental organizations in Taiwan, including the Meteorological Society of the Republic of China, the Chinese Geoscience Union, the Taiwan Association of Disaster Prevention Industry, the Taiwan Climate Services Partnership, and the Taiwan Youth Climate Coalition. Besides these, he is also a badminton coach.

Dr. Yinzi Jin is an assistant professor in the Department of Global Health at Peking University School of Public Health. Dr. Jin received her PhD in health systems and policy from Peking University China Center for Health Development Studies in June 2018, and completed her postdoctoral fellowship in the Department of Global Health at PekingUniversity School of Public Health in June 2020. Her research areas include Global Health Systems, Development Assistance for Health, Patient Safety and Healthcare Quality Improvement, Global Strategy of Noncommunicable Diseases Prevention and Control. Dr. Jin is leading more than 10 national- and provincial-level research projects related to implementation of quality improvement initiatives on emergency and critical care. She has published more than 30 peer-reviewed papers as first author and corresponding author. She has been invited to present in several international academic conferences, including the Global Health Symposium on Health Systems Research, Prince Mahidol Award Conference, World Health Summit, European Society of Cardiology, etc. She leads the course on Global Health for undergraduate students majoring in public health, and the course on Health Project Management for graduate students majoring in public health, and the course on International Health Project Management for executive master of public health from other low- and middle-income countries. She also serves as Health Systems Global, Emerging Voices Governance Board Member for the Western Pacific region since 2020.



Yinzi Jin



Nikansha Kumar

Nikansha Kumar comes from the beautiful tropical Islands of Fiji, and is of Indian descent. She graduated from the Fiji School of Medicine (now known as Fiji National University) in 2015 and completed a postgraduate diploma in Public Health, focusing on non-communicable diseases in 2019. She graduated with a Master of Public Health in non-communicable diseases in 2021. She has worked at various primary care health facilities in the Central Division in Fiji. With her passion in teaching and learning, she recently joined the faculty at the School of Public Health and Primary Care at the Fiji National University. She is now coordinating and teaching the Bachelor of Medicine and Bachelor of Surgery students with postgraduate students at the University. She is versatile, enthusiastic and hardworking. She stands by principles of integrity, loyalty, and dignity. She believes in taking opportunities as stepping stones and building blocks to make a difference in her community and the world.

Marcus provides leadership for HKUST's Net-Zero 2050 initiatives, focusing on decarbonisation strategies, cutting-edge technologies, and new step change projects that will transform HKUST's campus into a net-zero future. His 20+ years of experience spans management consulting in the U.S., corporate strategy/general management in Asia, and co-founding a wearable IoT start up with a focus on systems thinking and digital transformation. Before joining HKUST Marcus led product management at CLP Innovation—Hong Kong's largest utility provider—where he led team to deliver enterprise-grade smart building, energy management, and EV platform solutions. He remains an active advisor and mentor for several AI, IoT, and sustainability-related startups. Marcus earned a Bachelor's in Public Health from Johns Hopkins University, a Master's in Health Systems Management from George Mason University, and an MBA from HKUST.



Marcus Leung-Shea



Sijeong Lim

Dr. Sijeong Lim is associate professor in the Division of International Studies at Korea University. She holds a doctoral degree in Political Science from University of Washington, Seattle. Before joining the faculty at Korea University, she was a postdoctoral researcher at Stockholm University, Sweden and assistance processor at the University of Amsterdam, the Netherlands. Her research examines how domestic and international politics interact in the domains of environmental and social welfare policies. Her recent works explore global and domestic distributional implications of climate policy and discuss how societies can foster broad public support for the sustainable energy transition.



Melissa Low

Melissa Low is a Research Fellow at the National University of Singapore's (NUS) Centre for Nature-based Climate Solutions. She previously worked at the Energy Studies Institute, NUS where she carried out research projects on a range of energy and climate issues of concern to Singapore and the region. She has participated in the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP) for over a decade and is an active sustainability thought leader, authoring, publishing and presenting at various forums.

She is the Designated Contact Point for NUS's accreditation to the UNFCCC and serves on the nine-member Steering Committee of the Research and Independent Non-Governmental Organisation (RINGO) Constituency under the UNFCCC. She is also is a Member of the International Civil Aviation Organisation's Committee on Aviation Environmental Protection (CAEP) Long Term Aspirational Goal Task Group (LTAG-TG). Melissa holds an LLM in Climate Change Law and Policy (with distinction) from the University of Strathclyde, MSc in Environmental Management and BSocSci (Hons) in Geography from NUS. For her Master's thesis on past and contemporary proposals on equity and differentiation in shaping the 2015 climate agreement, Melissa was awarded the Shell Best Dissertation Award 2013. She is currently pursuing a PhD part-time at the NUS Department of Geography.

In 2021, Melissa was conferred the NEA EcoFriend Award and the Public Service Medal (Pingat Bakti Masyarakat) for her contributions towards environmental sustainability, climate change awareness and impact on youth. She serves as Chair of the Climate Action SG Alliance, is an Advisory Committee Member for the MSE SG Eco Fund, a Council Member of the 16th and 17th National Youth Council and Committee Member of the Speak Good English Movement. She is also Chief Curator of the National Youth Council's Young ChangeMakers Programme and a panellist on the Speak Good English Movement Programmes Evaluation Panel.

Dr. Cristina Mateus' main focus is on climate change and anthropogenic impacts on water resources. Managing water resources to meet both human and environmental needs under socioeconomic and climate changes in areas such as the Galapagos Islands poses great challenges for water managers. She evaluates and develops sustainable alternatives to address water quality and water quantity challenges as well as climate mitigation and adaptation actions for the Galapagos Islands.

Her current work particularly focuses on resilient urban development in the Galapagos Islands, to increase Galapagos resiliency by reducing vulnerabilities to changes in precipitation and population growth that impact public health, water quality, and the environment, focusing on wastewater and stormwater systems. Another project investigates how the different river and stream systems are affected by changes in temperature and precipitation under different greenhouse gas emission scenarios and evaluate how sub-basin characteristics, including elevation, hydrogeology, intensity of water demands, groundwater interactions, contribute to hydrologic sensitivity to climate variability and water scarcity. Another project is the Galapagos Emission Inventory and Model Development, with the goal to develop an air pollutant and greenhouse gas (GHG) emission model for environmental management and decision-making in the Galapagos Islands.



Cristina Mateus



Theo Mendez

Theo Mendez is a PhD Candidate at the University of Melbourne, based in both the Asia Institute and the Melbourne Climate Futures Hub. He primarily researches the impacts of clean energy transitions and climate change on international relations, with a focus on Australia and the Asia Pacific. His PhD project uses game theory and non-traditional security concepts to analyse the impacts of clean hydrogen and critical minerals on the future of the Australia-South Korea relationship. At the University of Melbourne Theo also assists with various research and administrative tasks in both the Korean Studies Research Hub (KSRH) and the Melbourne Climate Futures Academy (MCFA). Before joining the University of Melbourne, Theo was an undergraduate researcher at the University of Western Australia where he researched the representation of Asia in Australian education policies.

Dr. Kengo Sudo is a professor of the Climate Science Group in the Graduate School of Environmental Studies at Nagoya University, and also serves as a visiting senior scientist at the Japan Agency for Marine-Earth Science and Technology (JAMSTEC). Dr. Sudo and his team (Atmospheric Environment and Climate Modeling Laboratory) have been conducting research to quantitatively and globally elucidate the actual status and change of climate and atmospheric composition, principally using numerical models (including his developed chemistry-climate model named CHASER) and analysis of observational data as by satellites. The main research topics are (1) climate change research with chemistry-aerosol coupled climate modeling and Earth System modeling, (2) atmospheric chemistry and climate interaction, and (3) evaluation of long-range transport of air pollutants and its climate/health impact, (4) fusion and data assimilation with satellite observations of trace atmospheric components, and (5) development of emission reduction measures for mitigating and delaying global warming and air pollution. Dr. Sudo and his team have used the CHASER model in a large number of Model Intercomparison Projects (MIPs) like CMIPs and have contributed much to the assessment reports of IPCC. Further details will be found at https://profs.provost.nagoya-u.ac.jp/html/100003287\_en.html.



Kengo Sudo



Yuan Xu

Dr. Yuan XU is an associate professor in the Department of Geography and Resource Management and leads the Environmental Policy and Governance Programme in the Institute of Environment, Energy and Sustainability, The Chinese University of Hong Kong. He has published widely on energy and environmental policy, governance and strategy, especially on their enforcement and compliance as well as related technological and industrial development, covering fossil fuels and renewables. Before joining CUHK in August 2010, he received a Ph.D. degree in public policy from the Woodrow Wilson School of Public and International Affairs, Princeton University and was a postdoctoral research associate in the Industrial Performance Center, Massachusetts Institute of Technology. He also holds an M.S. degree in climatology, a B.S. degree in atmospheric sciences and a bachelor's degree in economics, all from Peking University.



Sayaka Yasunaka

Dr. Sayaka Yasunaka is a professor at Tohoku University, where she earned her Ph.D. (Science). She has worked at the University of Tokyo, National Institute for Environmental Studies (NIES, Japan), Japan Agency for Marine-Earth Science and Technology (JAMSTEC). Her research interests are ocean environmental science and ocean carbon and nutrient cycles. Recently, she revealed for the first time in a study based on observational data that the concentration of nutrients at the ocean surface has been decreasing over the past several decades with global warming. Meanwhile, through an international collaboration, she succeeded in quantifying carbon dioxide absorption in the Arctic Ocean, and showed that the Arctic Ocean is a major carbon dioxide sink. She has served as a steering committee member of the Oceanographic Society of Japan, a section board member of the Japan Geoscience Union (JpGU) and a steering committee member of the Arctic Environment Research Consortium, Japan. She has also been appointed as a research member of the IOC Committee of the Japanese National Commission for UNESCO, a member of the CLIVAR National Committee, a member of the SOLAS National Committee, and a member of the Advisory Board for Gender Equality of the Japan Society for the Promotion of Science (JSPS).

Shannon Zhong is a researcher and project manager with the Infectious Disease Epidemiology Unit in the School of Public Health and Preventative Medicine at Monash University. She has completed a Bachelor of Science (majoring in pathology and microbiology) and Master of Public Health (specialising in epidemiology and biostatistics) from the University of Melbourne. Her Master's thesis was a systematic review and narrative synthesis on quantifying the transmission dynamics of drug-resistant tuberculosis in different social settings. As an epidemiologist, her research interests span across different areas of public health, including infectious diseases epidemiology, climate and planetary health, travel medicine and research translation into policy development and implementation. Prior to this, she was a senior policy and research officer for Infection Prevention and Control as part of the COVID-19 Response at the Victorian Department of Health. She also served on the intergovernmental Ventilation Advisory Panel, identifying the value of good ventilation strategies in reducing the risk of airborne transmission of COVID-19 in indoor settings, using computational fluid dynamics, modelling and epidemiological data to develop evidence-based policies and guidelines.



Shannon Zhong

#### DAY 2 Speakers



Stephen Chua Chong Wei (Oceans)

Dr. Stephen Chua Chong Wei is a Research Assistant Professor at the Earth Observatory of Singapore where his research focuses on past sea level, climate and coastal change in Singapore and the region. He reconstructs past sea levels and environmental change in Singapore and Southeast Asia during the Quaternary period by applying sedimentological and geochemical methods on geological proxies (e.g., mangrove peat) mainly obtained from sediment cores. He has studied Singapore mangrove/coastal environments since 2002. palaeoenvironmental changes along the Sungei Buloh-Kranji mangrove coast and potential impacts of sea-level rise on Pasir Ris mangroves. His PhD involved reconstructing Holocene sea levels and environmental change from mangrove and marine muds from a 40m sediment core from Marina South, Singapore. He was a Visiting Research Associate of the British Geological Survey in 2015. He was awarded the Endeavour Research Fellowship (Australian Government) in 2017 to conduct isotopic analysis of sediments at James Cook University, Cairns. He was also awarded the Outstanding Student Presentation at the American Geoscience Union (AGU) annual meeting in 2018. Dr Chua sat on the Singapore Stratigraphic Committee (2014 - 2021) and led the collaborative re-evaluation of the Quaternary geology of Singapore. He co-authored the landmark Singapore Geology Memoir (2021) which guides all future geoengineering projects in Singapore. Dr Chua is the Principal Investigator of a multi-million dollar grant using a multiproxy approach (i.e., geophysics, water quality, sediment coring and analysis) to understand climate change impacts on Singapore's offshore water resources. This work will have implications for climate mitigation/adaptation and coastal protection efforts in Singapore and the region.

Dr. Hancheng Dai is an Assistant Professor and Chairman of the Department of Environmental Management in the College of Environmental Sciences and Engineering at Peking University. He is also a joint appointment research fellow of the Institute for Global Health and Development at Peking University. Dr. Dai's research focuses on green & low-carbon transformation and human & planetary health at the local, national and global scales. By developing and applying the state-of-the-art integrated assessment model, key questions are explored on the mitigation costs of achieving ambitious climate targets and their co-benefits on improvements in air pollution, human health and resource efficiency. Dr. Dai ranked as the World's Top 2% most-cited scientists released by Stanford University in 2020. His main publications, including 8 ESI 1% highly cited papers, are on energy economics and policy related journals. Dr. Dai is active in multiple international and domestic science programs by serving as the Lead Author of the Global Environment Outlook Sixth Edition (GEO-6) for Cities, Contributing Author of the IPCC 6th Assessment Report, Global Burden of Disease (GBD) Collaborator. He is also the Standing Committee Member of Branch of Ecological and Environmental Systems Engineering, Systems Engineering Society of China, and Committee Member of City Air Integrated Management and Low Carbon Action Partnership of China, as well as Committee Member of Branch of Climate Change of Chinese Society for Sustainable Development. He has also provided professional consulting services to various organizations such as the Energy Foundation and Environmental Defense Foundation.



Hancheng Dai (Clean Energy)



Yuzuru Isoda (Forests)

Dr. Yuzuru Isoda is Associate Professor at Tohoku University (Japan), in human geography. His research interests include human migration, population changes, and rural changes. He uses maps, Geographical Information System (GIS) and quantitative analyses in his research. He studied in Tohoku University and in London School of Economics. He has previously worked in Ritsumeikan University and in Ritsumeikan Asia Pacific University (both in Japan). Married, with a daughter and a dog, he spends most of his time outside work practicing the violin and piano.

Chris Richter is currently the Regional Migration, Environment and Climate Change Specialist at the International Organization for Migration's (IOM) Regional Office in Bangkok. He was previously a Migration Officer with IOM's Office to the United Nations in New York, a position he held since 2012. He has also spent time at IOM's Headquarters in Geneva. In New York, Mr. Richter was responsible for the office's sustainable development portfolio, coordinating IOM's policy inputs to major UN processes and conferences, including the 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda on Financing for Development, the SAMOA Pathway for Small Island Developing States, and the Habitat III New Urban Agenda, amongst others. Prior to joining IOM, Mr. Richter held several positions across the Australian Government, covering a variety of thematic issues. He served as a Policy Officer with the UN and Human Rights Section of the Australian Agency for International Development (AusAID), as well as on the Counter-Violent Extremism Taskforce at the Attorney-General's Department. More recently, he was also an Assistant Director of the Strategic Policy Section of the former Department of Immigration and Citizenship. Mr. Richter studied International Relations and International Law at the University of Queensland, and has a Masters in International Development from Deakin University in Melbourne. He has published a number of articles on migration and development, refugee law and security policy.



Chris Richter (Migration)



Sam Sellers (Population Dynamics)

Dr. Sam Sellers is a demographer and climate change expert who has published over 15 peer-reviewed articles addressing population and environment linkages. His work explores how environmental change impacts fertility, migration, and public health outcomes. He received a Ph.D. in Ecology from the University of North Carolina at Chapel Hill in 2017 and completed a postdoctoral fellowship on climate change and health at the University of Washington in 2019. He currently serves as an Environment Officer at the United States Agency for International Development working on climate change integration. The views and opinions expressed by Mr. Sellers are his own and not necessarily the views and opinions of the United States Agency for International Development.



Wan-Ling Tseng (Trading and Offsets)

Dr. Wan-Ling Tseng is Assistant Professor at National Taiwan University. She teaches in the International Degree Program in Climate Change and Sustainable Development. Prior to this role, she worked as a research scientist at the Ministry of Science and Technology, Research Center for Environmental Changes. She completed a post-doctoral fellowship at the same center. She earned her PhD in Ocean Research from the Helmholtz Centre for Ocean Research Kiel (GEOMAR) in Germany in 2012. Her research interests include: Tropical climate, large-scale circulation and climate change; Ocean-atmosphere interaction; Madden-Julian Oscillation; Global circulation model and data diagnostics; Attribution of extreme climate events; Reconstruction of historical climate; and The impact of atmospheric circulation on ecosystems.

#### AVAILABLE OFFLINE

Dr. Alistair Woodward is a public health doctor and epidemiologist at the University of Auckland in New Zealand. He has worked for a range of international agencies, including WHO, UNEP and the Ford Foundation. His climate change interests go back to the 1990s, when the idea that human activity might disrupt planetary systems was regarded as rather odd, and hardly deserving serious attention. The world has changed, thank goodness.



Alistair Woodward



Gonzalo Rivas

Dr. Gonzalo Rivas is interested in understanding the impact of biotic and abiotic variables on the plant communities of tropical forests in Ecuador, particularly in the Yasuní Biosphere Reserve, Galapagos and in the high Andean forests of the North of the country. His current projects include: 1) mapping the existing diversity in these areas using advanced technologies and remote sensing; 2) using spatially explicit results as the tools endorsed by the environmental authority of Ecuador, 3) understand in the short and long term how variation in climate at different spatial and temporal scales affects plant communities in his regions of interest.



Litiana Talake is the Adaptation Policy Adviser in the Climate Change Department of the Ministry of Finance of the government of Tuvalu.

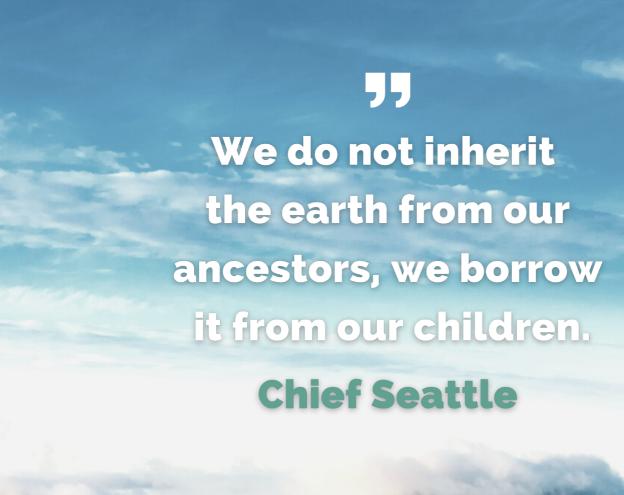
Litiana Talake

Dr. Kathryn Bowen is Professor and Deputy Director at Melbourne Climate Futures, and Professor - Environment, Climate and Global Health, at the Melbourne School of Population and Global Health, University of Melbourne. She is an Affiliate Scholar at the Institute for Advanced Sustainability Studies, Potsdam, Germany (iass-potsdam.de). Kathryn works at the nexus of global environmental change, global health and governance issues primarily in low and middle-income settings. She holds a PhD (ANU), MSc (International Health), DTMPH (Humboldt & Frei Universities, Berlin) and BA/Psyc (Hons) (Newcastle).

She has worked in global health research and policy since 1999, across public, private and university sectors. She is a Senior Research Fellow within the Earth System Governance project, and Alumni of the Centre for Sustainability Leadership. She also holds a number of key international leadership roles, including as Lead Author on the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report (Ch. 7, Health), the Science Committee of the World Adaptation Science Program (UNEP); the Steering Committee of the Future Earth Health Knowledge Action Network (Health KAN), and the Planetary Justice Taskforce as part of the Earth System Governance network. Dr Bowen is regularly commissioned by international bilateral and multilateral agencies (eg. WHO, DFAT, UNEP, UNDP, ADB, GIZ, DFAT) to co-design solutions for sustainable futures, particularly in relation to planetary health. She works passionately to empower colleagues and decision-makers and collaborate with diverse stakeholders to drive positive outcomes.



Kathryn Bowen







#### WRITTEN INSTRUCTION

- 1. You will receive an email invitation to join the Canvas site for 2023 APRU Student Global Climate Change Simulation. Follow the instructions in the email or these instructions below.
- 2. Go to https://canvas.instructure.com/login/canvas

\*\*NOTE: It MUST be canvas.instructure – if the URL says canvas.learn, you're on the WRONG version of the site.

\*\*If your university uses Canvas - you still need to make a new account with THIS version of Canvas.

- 3. In the top right corner it says "Need a canvas account? Click here, it's free"
- 4. Click that link and it will take you to the following webpage: https://canvas.instructure.com/register
- 5. Click on the student sign up
- 6. Complete the required information and use the join code: JLAABF
- 7. Once you complete the sign up you should be granted access to the site.







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