



New Zealand Contemporary  
China Research Centre

NEW ZEALAND INTERNATIONAL CONFERENCE ON CONTEMPORARY CHINA

# CHINA AND CLIMATE CHANGE: RESPONDING TO A GLOBAL CHALLENGE

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**ORGANISED BY:** Organised by the New Zealand Contemporary China Research Centre in partnership with the New Zealand Climate Change Research Institute

**DATE:** Wednesday 13th November 2019

**LOCATION:** Hunter Council Chamber, Victoria University of Wellington

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### **About the Centre**

The New Zealand Contemporary China Research Centre promotes knowledge and understanding of contemporary China in New Zealand through research, collaboration and knowledge sharing.

Based at Victoria University of Wellington, the China Centre partners with eight New Zealand universities to support international and local conferences, seminars, symposiums and workshops, visitor exchanges, collaborative research and courses on the political, economic and social life of China today.



# CONFERENCE NOTE

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Climate change is an unprecedented challenge for the global community. China is the world's largest emitter of greenhouse gases with over a quarter of all global emissions coming from that country alone. Progress on reducing greenhouse gas emissions in China is therefore crucial for any meaningful global response to climate change. Following decades of rapid economic growth and industrialisation China faces a major environmental catastrophe making arresting China's growing emissions an enormous task.

There is much debate about how a sustainable low-carbon economy can be achieved in China and there is considerable economic and policy experimentation already underway. China's state and private sector are major investors in clean technology. Policymakers are implementing the world's largest carbon trading scheme and experimenting with green finance, innovative technology and renewable energy. China is seeking a leading role in global environmental governance and in the export of green technology. How successful these efforts are remains to be seen.

This conference will assess China's domestic and international approach to climate change and ask what this means for New Zealand, the region and for global efforts at climate change mitigation and adaptation. Key questions include:

- What is China's approach to climate change and climate governance on the international stage?
- What is China doing to promote renewable energy, a low carbon economy, green finance and sustainable agriculture and industry?
- What is the balance of mitigation and adaptation in China's climate change policy?
- What opportunities do developing nations have for pursuing green growth strategies?

# CONFERENCE SCHEDULE

**12.30 pm**      **Registration**

**1 pm**            **Welcome**

**Associate Professor Jason Young**

*New Zealand Contemporary China Research Centre*

**1.10 pm**      **KEYNOTE ADDRESS**

**Professor PAN Jiahua**

*Director General, Institute for Urban and Environmental Studies at the Chinese Academy of Social Science (CASS)*

**Title: China's 14th Five-Year Plan: a target based approach to climate change**

**Abstract:** China's 14th Five-Year Plan (2021-25) has set an ambitious target to address climate change. This speech outlines China's target-based approach, its role in climate governance and progress implementing the nationally determined contributions (NDCs) at the heart of the Paris Agreement. It assesses China's progress toward these long-term goals as well as the challenges and opportunities for China today and into the future. The talk concludes with a discussion of the potential implications of climate change for Chinese policy and practice and presents suggestions for the future.

**1.45 pm**      **Session 1: GREEN ECONOMICS IN CHINA**

**Chair: Dr Rhian Salmon**

*Senior Lecturer, Centre for Science in Society, Victoria University of Wellington*

**Professor John Mathews**

*Emeritus Professor, Faculty of Business and Economics, Macquarie University*

**Title: China's green growth economy as an engine of development**

**Abstract:** At the vast scale at which China is industrializing, the conventional pathway of fossil fuel dependence and linear resource throughput is not a feasible option, for reasons to do with environmental spoliation and geopolitical limits. China has crafted an alternative pathway based on green growth, which opens up possibilities for late developers worldwide.

**Dr Alex Lo**

*Senior Lecturer in Climate Change, School of Geography Environment and Earth Sciences, Victoria University of Wellington*

**Title: Regional emission trading? China, New Zealand, and the Asia Pacific region**

**Abstract:** China and New Zealand have made considerable efforts in reducing carbon emissions. Emissions trading schemes (ETS) have been adopted by both countries and in other major economies in the Asia Pacific region. Integrating these schemes to form a regionally coordinated carbon market can create significant environmental and economic benefits. However, the prospects for regional integration remain uncertain. In this presentation, I outline these uncertainties as well as the opportunities by asking who can lead, in what ways, and what are the barriers?

3pm

Afternoon Tea

3.20pm

## Session 2: ADAPTATION AND MITIGATION STRATEGIES

**Chair: Dr Alex Lo**

*Senior Lecturer in Climate Change, School of Geography Environment and Earth Sciences, Victoria University of Wellington*

**Dr Yu Xiang**

*Research Fellow, Institute for Urban and Environmental Studies at the Chinese Academy of Social Sciences (CASS)*

**Title: China's transition to low carbon, ecological and green cities**

**Abstract:** Cities are responsible for up to 70% of global anthropogenic greenhouse gas emissions, of which the largest source relates to fossil fuel consumption. As the world's largest carbon dioxide emitter, China has committed to peaking CO<sub>2</sub> emissions by 2030 at the latest, lowering the carbon intensity of GDP by 60-65% below 2005 levels by 2030 and increasing the share of non-fossil energy carriers of the total primary energy supply to around 20%. During the 2015 Paris Climate Conference more than 360 global cities announced that the collective impact of their commitments would deliver over half of the world's urban greenhouse-gas emission reductions by 2020. To this end, China has initiated a series policy and pilot programs to achieve low carbon, ecological and green development in its cities. This talk will examine best practice and innovation in Chinese cities, such as low-carbon development and environmental protection, to promote the harmonious development of humanity and nature.

**Professor ZHENG Yan**

*Research Fellow, Institute of Urban and Environmental Studies, Chinese Academy of Social Sciences (CASS)*

**Title: Development as adaptation: framing and measuring urban resilience in Beijing**

**Abstract:** Urban areas face significant climatic risks against the backdrop of global climate change. Improving urban resilience has become an important strategy to cope with this challenge. Based on the UNISDR (2018) report, between 1998 and 2017 flooding ranked as the top climatic disaster that affected over 2 billion people (some 45% of the global population affected by natural disasters). During the period 2008 to 2010, approximately 62% of China's cities were affected by flooding. In 2012, Beijing experienced flooding that resulted in 79 deaths and economic losses of RMB 11.8 Billion, yet similar floods in 2016 resulted in no deaths. Social economic development levels, climate and geographical environment factors, urban comprehensive risk management capacity and urban public service ability are important factors that influence urban resilience. This talk will examine these two events to describe how development orientation influences resilience to climate change and how proactive planning and development-orientated adaptation strategies are imperative for fast growing cities to address potential risks and challenges in the context of global climate change and rapid urbanization.

# CONFERENCE SCHEDULE *CONT*

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**Professor David Frame**

*Professor of Climate Change and Director of the New Zealand Climate Change Research Institute (NZCCRI) at Victoria University of Wellington*

**Title: Governing the emergence of climate change**

**Abstract:** This talk will focus on two aspects of how societies deal with the emerging effects of climate change. One part will focus on how the robustness of patterns of climate change emergence illuminate risks and potentially provide insights into mitigation benefits; the second will look at the relationship between methane and carbon dioxide in the setting of carbon budgets, which is an issue of some importance to economies based on agriculture (usually developing countries)

**4.50pm**

**Vote of Thanks**

**Associate Professor Jason Young**

*Director, New Zealand Contemporary China Research Centre*



### **Professor PAN Jiahua**

Professor PAN Jiahua is Director General of the Institute for Urban and Environmental Studies at the Chinese Academy of Social Sciences (CASS). He received his PhD from Cambridge University in 1992, conducting research on the economics of sustainable development, energy and climate change policy, the world economy and environmental and natural resource economics. He is the Lead author of the IPCC Working Group III 3rd, 4th, 5th, 6th Assessment Report on Mitigation; Member of China National Expert Panel on Climate Change; Member of National Foreign Policy Advisory Group; and Advisor to the Ministry of Ecology and the Environment. Professor PAN is President of the Chinese Association for Urban Economy and Vice-President of the Chinese Society of Ecological Economists. Director Pan is the author of over 300 papers, articles and books in both English and Chinese and winner of the first and second prize of best research work, Chinese Academy of Social Sciences (2002, 2004 & 2013). Professor Pan is also a recipient of the Sun Yefang Award of Economic Sciences, 2011, China Green Person of the Year 2010/2011 and China Environment Prize (2016).



### **Dr Rhian Salmon**

Dr Salmon is Senior Lecturer in the Centre for Science in Society at Victoria University of Wellington. Dr Salmon's research explores the context within which science communication and engagement operates both in New Zealand and internationally. Her research career started with a PhD in Atmospheric Chemistry, in Canada, followed by a post-doctoral researcher role with the British Antarctic Survey. After that, she switched fields and became the education, outreach, and communication coordinator for the International Polar Year 2007-08 before starting to explore theory and research in public engagement in more detail. She has expertise in catalysing conversations between scientists and different publics and has worked with a range of audiences on science festivals, public debates, global community events and expeditions.

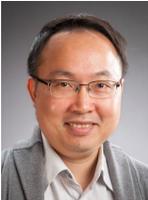
# BIOGRAPHIES

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## **Emeritus Professor John Mathews**

Emeritus Professor John Mathews specialises in catch-up strategies of firms and countries in East Asia. For several years, Professor Mathews has focused on the greening of industry with an emphasis on the role of China. Professor Mathews publications include *Greening of Capitalism: How Asia is Driving the Next Great Transformation*, and *China's Renewable Energy Revolution and its Global Significance* with Dr Hao Tan. In 2017, Professor Mathews authored *Global Green Shift: When Ceres Meets Gaia*.



## **Dr Alex Lo**

Dr Alex Lo is Senior Lecturer in Climate Change at Victoria University of Wellington. Dr Lo specializes in the study of public and policy response to climate change. Prior to coming to Victoria, he was a full-time faculty member of Griffith University, Australia (2011-2015) and the University of Hong Kong (2015-2019), where he led a research project funded by the National Natural Science Foundation of China. Since 2018, he has been a Senior Research Fellow of the Earth System Governance Project and an Adjunct Professor at Guangzhou University, China. Currently, he is an Associate Editor of the *Geographical Research* journal, and the Programme Director of the Master of Climate Change Science and Policy at Victoria.



## **Dr YU Xiang**

Dr Xiang YU is a research fellow for the Institute for Urban and Environmental Studies at the Chinese Academy of Social Sciences. She obtained her PhD in Management and MA in Finance and Economics. Dr Yu conducted research on low carbon economies at the Political Economy Research Institute in the University of Massachusetts in the United States from 2009-2010. She has worked for the Institute for Urban and Environmental Studies, Chinese Academy of Social Sciences since 2011, and conducts research on energy and climate change policy, as well as the economic and social dimensions of sustainable development.



### **Professor ZHENG Yan**

Professor ZHENG Yan is a research fellow of the Institute for Urban & Environmental Studies (IUE) of the Chinese Academy of Social Sciences (CASS). She was a visiting scholar of the Harvard-China Energy and Environmental Project at Harvard University from 2014 to 2015. Dr Zheng Yan is a lead author for IPCC Sixth Assessment Report on Climate Change 2021: Impacts, Adaptation and Vulnerability, and a chief lead author for China National Assessment Report on Risk Management and Adaptation of Climate Extremes and Disasters. Dr Zheng Yan has a research interest in climate change policy, focusing on climate risk governance, and resilient cities.



### **Professor David Frame**

Professor Dave Frame is Director of the New Zealand Climate Change Research Institute (NZCCRI) at Victoria University of Wellington. He has a background in physics, philosophy and policy. Prior to joining the NZCCRI Dave spent the bulk of his career at the University of Oxford, working in the Departments of Physics and Geography, and later at the Smith School of Enterprise and the Environment. He also has policy experience, having worked at the New Zealand Treasury, and having served on secondment at the UK Department of Energy and Climate Change. He has been a Lead Author on the Fifth and Sixth Assessment Report of the Intergovernmental Panel on Climate Change, and his research has often been published in the world's leading scientific research journals, as well as in the specialist climate literature.



### **Associate Professor Jason Young**

Jason Young is the Director of the New Zealand Contemporary China Research Centre and an Associate Professor in the School of History, Philosophy, Political Science and International Relations. His research focuses on Chinese politico-economic and institutional reform, Chinese foreign policy and New Zealand-China relations. His current research focuses on Chinese international relations writing.



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