

# Workshop on Urban Climate: From Science to Solutions

October 20, 2015

## 城市气候研讨会：科学认知与实践方案

2015年10月20日

Urban areas account for more than 70% of global fossil fuel CO<sub>2</sub> emissions. If the top 50 emitting cities were a single country, its emissions would rank third globally, behind China and the U.S. While cities contribute to a large percentage of global greenhouse gas emissions, they are also global hotspots: they modify their local climates and cities are prone to increasing temperatures. High temperatures in city centers increase risk and vulnerability of urban residents. This symposium addresses this twin challenge for cities: mitigating greenhouse gas emissions and local climate effects. The symposium brings together researchers and practitioners at the forefront of the science and solutions of urban climate mitigation. We will explore potential solutions and gaps in the science, and seek scalable solutions.

全球超过70%的化石燃料燃烧排放的二氧化碳源于城市，其中碳排放最高的50个城市的排放总和仅次于中国和美国。作为全球温室气体排放的主要贡献者，城市也是全球气候变化的直接受害者。与其它地区相比，城市温度更容易上升，进而增加城市居民的健康风险和脆弱性。针对城市发展面临的两大严峻挑战（降低城市温室气体排放和改善城市气候），本次研讨会召集本领域的一线科研学者与决策制定和实施者共同探讨对该问题的认识，寻求全面的应对方案。

### Venue

#### Yale Center Beijing

36th Floor, Tower B  
IFC Building  
8 Jianguomenwai Avenue  
Chaoyang District, Beijing, China

耶鲁北京中心, 北京市朝阳区建国门外大街8号国际财源中心B座36楼

<http://centerbeijing.yale.edu/cn>

### Sponsoring Universities

#### School of Forestry and Environmental Studies

Yale University, USA

#### Center for Earth System Science and School of Environment

Tsinghua University, China

#### Yale-NUIST Center on Atmospheric Environment

Nanjing University of Information, Science and Technology, China

### Organizing Committee

#### Peng GONG 宫鹏

*Professor and Director*  
Center for Earth System Science, Tsinghua University  
[penggong@mail.tsinghua.edu.cn](mailto:penggong@mail.tsinghua.edu.cn)

#### Xuhui LEE 李旭辉

*Sara Shallenberger Brown Professor*  
School of Forestry and Environmental Studies,  
Yale University  
[xuhui.lee@yale.edu](mailto:xuhui.lee@yale.edu)

#### Karen SETO 司徒静儀

*Professor and Associate Dean of Research*  
School of Forestry and Environmental Studies,  
Yale University  
[karen.seto@yale.edu](mailto:karen.seto@yale.edu)

### Local Contact

#### Zhen XU 徐珍

Yale-NUIST Center on Atmospheric Environment  
Nanjing University of Information, Science and  
Technology, China  
[478766329@qq.com](mailto:478766329@qq.com)  
86 025 5869 9890, 86 139 5182 3285

## Schedule | 计划

8:30a.m. – 9:00a.m.  
时间 8:30 – 9:00

### Welcome and Check In | 注册

Yale Center Beijing Lobby | 耶鲁北京中心大厅

9:00a.m. – 12:15p.m.  
时间 9:00 – 12:15p.m.

### Morning Program | 上午日程

Yale Center Beijing Forum | 耶鲁北京中心会议厅

9:00a.m. – 9:05a.m.

### Opening Remarks

Karen SETO | 司徒静儀

Associate Dean of Research

Yale University

9:05a.m. – 9:10a.m.  
上午 9:05 – 9:10

### Welcome Speech | 欢迎辞

Dahe QIN | 秦大河

Member of the Chinese Academy of Sciences,

Chinese Meteorological Administration | 中国科学院、中国气象局

9:10a.m. – 10:40a.m.  
上午 9:10 – 10:40

### Panel Presentations | 专题报告

Yale Center Beijing Forum | 耶鲁北京中心会议厅

THE STATE OF THE SCIENCE ON URBANIZATION AND URBAN CLIMATE  
城市化与城市气候的科学认知

China's Urbanization Trends and the Central Government's  
Agenda on Urbanization | 中国城市化进程与政府议程

Zhiyun OUYANG | 欧阳志云

Professor and Deputy Director | 研究员, 副主任

Research Center for Eco-Environmental Science,

Chinese Academy of Sciences, China | 中国科学院生态环境研究中心

Real-time Monitoring of Urban Expansion in China | 中国城市扩张的实时监测

Jun YANG | 杨军

Associate Professor | 副教授

Center for Earth System Science, Tsinghua University, China

清华大学地球系统科学中心

Mitigating Urban Heat in a Warming World | 全球增温背景下改善城市热环境

Matei GEORGESCU

Assistant Professor | 助理教授

Arizona State University, USA | 美国亚利桑那州立大学

Climate and Carbon of Cities | 城市气候与碳排放

Galina CHURKINA

Senior Fellow | 高级研究员

Institute for Advanced Sustainability Studies, Germany

德国联邦高等可持续发展研究中心

10:40a.m. – 10:50a.m.  
上午 10:40 – 10:50

### Coffee Break | 茶歇

Yale Center Beijing Shen Commons | 耶鲁北京中心沈招待厅

10:50a.m. – 12:00p.m.

上午 10:50 – 12:00

**Panel Discussion | 专题讨论**

Yale Center Beijing Forum | 耶鲁北京中心会议厅

12:00p.m. – 1:00p.m.

**Lunch | 午餐**

Yale Center Beijing Shen Commons | 耶鲁北京中心沈招待厅

1:00p.m. – 4:30p.m.

下午 1:00 – 4:30

**Afternoon Program | 下午日程**

Yale Center Beijing Forum | 耶鲁北京中心会议厅

1:00p.m. – 2:40p.m.

下午 1:00 – 2:40

**Panel Presentations | 专题报告**

Yale Center Beijing Forum | 耶鲁北京中心会议厅

SOLVING URBAN CLIMATE MITIGATION: OPPORTUNITIES AND CHALLENGES FOR PRACTICAL AND SCALABLE SOLUTIONS | 改善城市气候：实践中的机遇与挑战

**Kejun JIANG | 姜克隽**

*Director* | 主任

Energy Research Institute | 国家发改委能源研究所

**Paul PROCEE**

*Lead Urban Specialist* | 首席城市专家

The World Bank, China | 世界银行 (中国)

**Pengfei XIE | 谢鹏飞**

*Director* | 主任

China Sustainable Cities Project, Natural Resources Defense Council, China  
自然资源保护协会 中国可持续城市项目

**Karin JANZ**

*Country Director* | 中国区项目负责人

Institute for Sustainable Communities, China | 可持续社区协会

**Xiaoqian JIANG | 蒋小谦**

*Research Analyst* | 研究分析员

Greenhouse Gas Protocol, World Resources Institute China Office  
世界资源研究所中国办公室 温室气体核算体系

2:40p.m. – 2:50p.m.

下午 2:40 – 2:50

**Coffee Break | 茶歇**

Yale Center Beijing Shen Commons | 耶鲁北京中心沈招待厅

2:50p.m. – 4:15p.m.

下午 2:50 – 4:15

**Panel Discussion | 专题讨论**

Yale Center Beijing Forum | 耶鲁北京中心会议厅

4:15p.m. – 4:30p.m.

下午 4:15 – 4:30

**Concluding Remarks | 会议总结**

Yale Center Beijing Forum | 耶鲁北京中心会议厅

**Sir Peter CRANE**

*Carl W. Knobloch, Jr. Dean* | 院长

School of Forestry and Environmental Studies,  
Yale University, USA | 耶鲁大学森林与环境研究学院

5:00p.m.

下午 5:00

**Reception | 鸡尾酒招待会**

Yale Center Beijing Shen Commons | 耶鲁北京中心沈招待厅

## Biographies | 传记

### Galina CHURKINA

**Galina Churkina** is a senior fellow in the Institute for Advanced Sustainability Studies, Germany. She holds a PhD from the School of Forestry, University of Montana. Her research is concerned with feedbacks between urbanization and the atmosphere and their implications for society. She uses state-of-the-art computer models along with ground and satellite measurements to analyze these feedbacks. Prior to joining IAS, she worked as a senior scientist at the Max Planck Institute for Biogeochemistry, Germany and visiting fellow in University of Michigan and National Center for Atmospheric Research (NCAR), USA.

### Matei GEORGESCU

**Matei Georgescu** is an assistant professor in the School of Geographic Sciences and Urban Planning, Arizona State University, USA. He obtained his PhD in Rutgers University. His research aims to improve understanding and characterization of distinct phenomena related to urbanization-induced landscape change. He focuses on identifying hydro-climatic and air quality impacts resulting from large-scale urbanization, as well as potential adaptation and mitigation strategies. The range of tools used to investigate these topics include climate models, remote sensing data and associated applications, and in situ weather/climate observations.

### Karin JANZ

**Karin Janz**, ISC's China Country Director, manages a multi-disciplinary team to implement urban sustainability projects. She has been working internationally for 25 years on various development programs. She joined ISC on July 1st, 2014, coming from Afghanistan where she served as Project Leader focused on sustainable economic development for GIZ, the German International Development Cooperation. In this role, Karin was responsible for developing sustainable value chain approaches in rural and urban areas, and connecting private and public partners for economic development opportunities. Prior to her work in Afghanistan, she worked in China from 1990 to 2005, including managing and advising various environmental and rural programs for GIZ in Beijing, Shanxi and many other regions of China. She has also served as the Country Director for a large German NGO in North Korea from 2005-2010, overseeing an international team with projects in agriculture, environmental protection and infrastructure.

Karin's experience includes capacity building and development, using participatory approaches, project management, and supervising multi-disciplinary teams of experts and project managers. In addition, her experience also includes monitoring and evaluation, strategic development of country programs, and communications, outreach, and marketing.

Karin holds both an MSc as well as a Ph.D. in Landscape Planning and Environmental Planning from Technical University Berlin, Germany. She speaks German and English fluently, is conversational in Mandarin, and speaks some French and Korean.

**Kejun JIANG**

姜克隽

**Kejun Jiang** is is director of Energy Research Institute (ERI), National Development and Reform Commission, China( notizia del January 2011). He began research on climate change relative to energy policy analysis in 1993, focusing on energy technology policy assessment, energy supply policy assessment, renewable energy development and energy conservation. From 1997, Dr Kejun participated in Working Group III of the International Panel on Climate Change Third Assessment Report and was a lead author for the the IPCC Fourth Assessment Report (Working Group Three Chapter 3) and for GEO-4 Chapter 2. Dr Kejun Jiang's recent studies include energy and emission scenarios, assessment on energy and fuel tax, research on China's potential to achieve its energy targets and development of the Integrated Policy Assessment model. He received his Ph.D in Social Engineering from the Department of Tokyo Institute of Technology.

**Xiaoqian JIANG**

蒋小谦

**Xiaoqian Jiang** is a Research Analyst working with the Climate Program, based in WRI China Office. She is one of the core team members of the Greenhouse Gas Protocol City Accounting Project to develop an international standard for accounting and reporting greenhouse gas emissions from cities and communities. In China, she works with the Greenhouse Gas Protocol China team to help provinces and cities promote low-carbon development through projects such as capacity building and policy research. Xiaoqian holds a Bachelor's degree in Economics from the Southwest Jiaotong University, China, and a Master's degree in Environmental Studies and Sustainability Science from Lund University, Sweden.

**Zhiyun OUYANG**

欧阳志云

**Zhiyun Ouyang** is professor and Deputy Director, Research Center for Eco-Environmental Science, Chinese Academy of Sciences. His research is concerned with panda habitats, ecosystem structures and functions, urbanization and land use planning. Recent projects aim to quantify ecosystem services in urban environment, restore degraded ecosystems and establish field cases on ecologically sustainable urban landscape. He has published over 300 scientific articles and books, including six papers in *Science* and *PNAS*.

**Paul PROCEE**

**Paul Procee** is an environmental engineer with about 15 years of experience in urban environmental and infrastructure management. He joined the World Bank in 1999 and has been working on a wide range of projects related to urban infrastructure, water supply, sanitation, solid waste, transport, and disaster risk management. About a year ago he moved from the World Bank's Latin America Region to the China Office in Beijing, where he manages a variety of urban infrastructure projects and coordinates the disaster risk management activities of the Bank in China. Among others, after the 2011 floods in China, he prepared a policy note on Integrated Flood Risk Management for the Chinese Government and he currently manages the Wenchuan Earthquake Recovery Project and a number of urban infrastructure and flood control projects.

**Dahe QIN**

秦大河

**Dahe Qin** is a member of the Chinese Academy of Sciences and a professor in the Chinese Meteorological Administration. He received his PhD in 1992 specializing in physical geography. His areas of interest include global climate change and interactions of climate and human drivers with the cryosphere. He has led numerous scientific programs on snow and ice dynamics in the Arctic, the Antarctic and the Tibetan Plateau. He has published over 200 scientific articles and books. He is a lead author of the *IPCC Fifth Assessment: the Physical Science Basis*.

**Pengfei XIE**

谢鹏飞

**Pengfei Xie** is now director of China Sustainable Cities Project in Natural Resources Defense Council (NRDC) China Program. He leads NRDC's efforts in working with government partners, research institutions and other organizations to promote low-carbon urbanization in China. Prior to joining NRDC, he worked as a research scientist and a principal investigator with China Society for Urban Studies of the Ministry of Housing and Urban Rural Development (MoHURD). His expertise is sustainable city planning and development. As a MoHURD expert, he has participated in many projects and played an important role in compiling the national guidelines and standards on urban sustainability. Dr. Xie has both domestic and international experience. He has worked as a research fellow with the Smithsonian Institution in Washington D.C., and an evaluation specialist for Asian Development Bank (ADB). He has also provided technical support to multinational projects such as the World Environmental Hubs Initiative of the International Union for Conservation of Nature (IUCN), China Champion City Initiative of the World Economic Forum, the Sino-Germany Sustainable Urban Development Program, and the Sino-US Low-Carbon Ecocity Partnership Program. He publishes widely in academic journals and is a peer-reviewer for the international journal *Urban Studies*. He got his PhD from Peking University and his MSc and Master of Engineering from University College London and University of Science and Technology Beijing, respectively. He holds the qualification of Certified Urban Planner, and is a member of the Urban Planning Society of China and International Council on Monuments and Sites (ICOMOS) China.

**Jun YANG**

杨军

**Jun Yang** is an associate professor in the Center for Earth System Science, Tsinghua University, China. He received his PhD from the University of California at Berkeley. Prior to joining Tsinghua University, he taught at the Beijing Forestry University on remote sensing and geospatial analysis. His areas of interest include urban ecosystem functions and structures, feedbacks between global environmental change and urban ecosystem services, sustainability of urbanization in China, and remote sensing. He is a member of the editorial board for the international journal *Urban Forestry & Urban Greening*.