

Organized by:



Supported by:



# Merging Science, Policy, & Business Building a Network of Sustainable Cities

11 September 2017  
Event summary report

## BACKGROUND

With the strong global trend toward urbanization continuing, the chief focus of the investigation of avenues to long-term sustainability will be on cities, and the transportation, trade, and resource transmission networks connecting them. Robert Gottlieb and Simon Ng have studied intensively the urban complexes of Los Angeles, Hong Kong and the Pearl River Delta, their interconnections through the global trade in goods and resources, and their environmental and societal challenges. In a new book, “Global Cities”, they engagingly describe the history of these urban complexes and their tightly-bound interactions, and explore how those experiences can inform the path forward.

In this presentation and discussion, Prof. Gottlieb and Mr. Ng will describe their research, with Prof. Gottlieb focusing on his studies of the Los Angeles urban complex and Mr. Ng on Hong Kong and the neighboring Pearl River Delta cities. Together they will show how closely connected, in the era of global trade, are these two urban areas on opposite sides of the Pacific, and how the impact of the global trade in goods and resources has affected their social structures and environments. Their presentation will discuss the ways in which science and business can contribute to the determination of how cities and their interconnecting networks will structure themselves for long-term sustainability.

About “Global Cities”: <https://mitpress.mit.edu/books/global-cities>  
Book review and related articles: <https://globalcitiesbook.com/blog/>

## PROGRAMME

- 09:00am Reception
- 09:15am Opening remarks by Dr. Michael Edesess
- 09:25am Presentation by Prof. Robert Gottlieb and Mr. Simon Ng
- 10:05am Panel discussion and Q&A session
  - Panellists: Ms. Maya de Souza, Prof. Robert Gottlieb, Mr. Simon Ng
  - Moderator: Dr. Michael Edesess
- 10:40am Closing remarks
- 11:00am Meeting ends (Networking with coffee/tea)

Please visit HKUST website to download post-event materials:  
<http://www.envr.ust.hk/events-and-media/events-and-seminars.html#2017-9>

## **SPEAKERS**

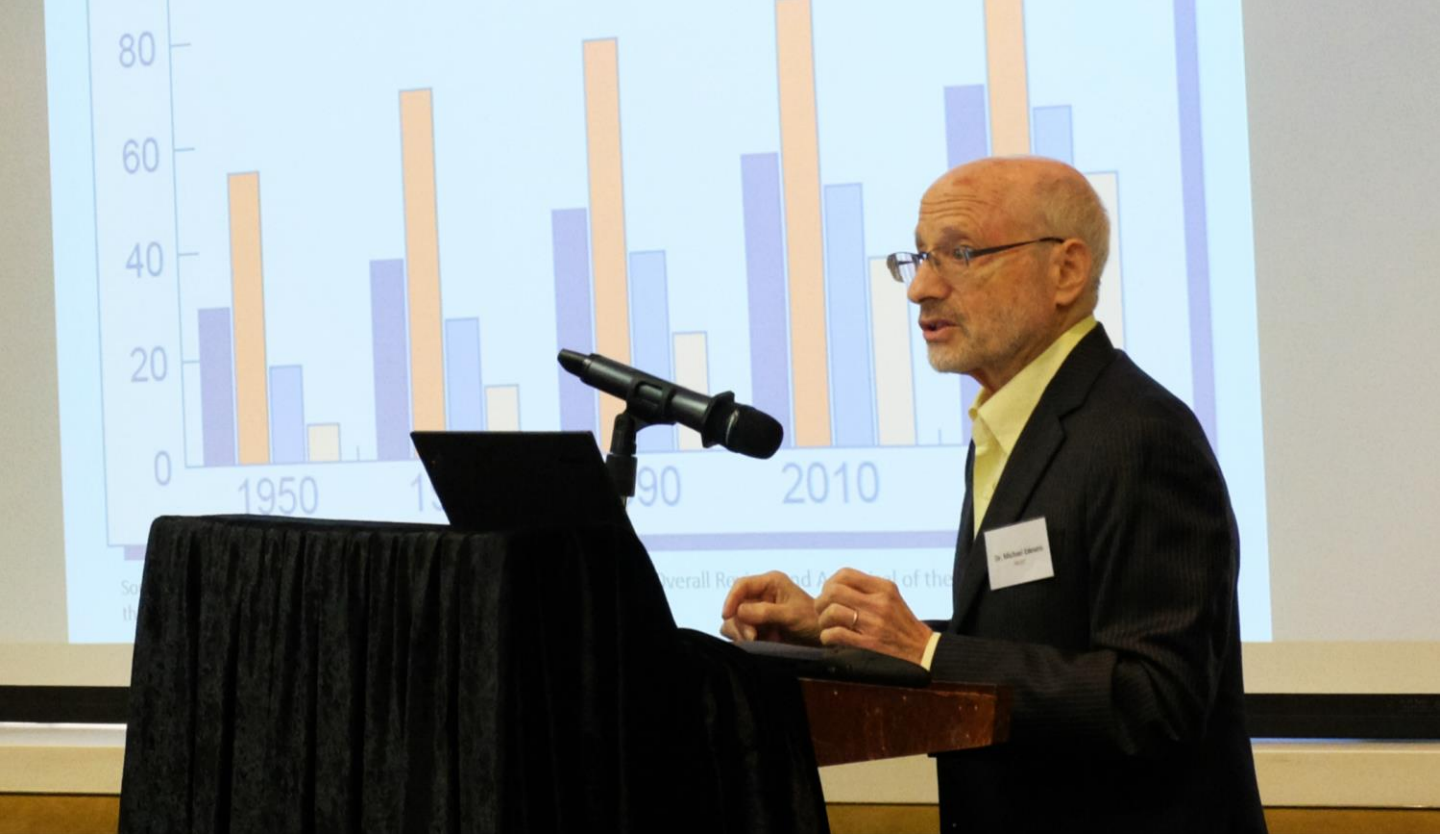
**Prof. Robert Gottlieb** is the Emeritus Prof. of Urban and Environmental Policy, and founder and former Director of the Urban & Environmental Policy Institute at Occidental College, Los Angeles.

**Mr. Simon Ng** is an environmental and transport consultant, and Fellow and former Chief Research Officer at Civic Exchange, a public policy think tank in Hong Kong.

**Ms. Maya de Souza** is Senior Manager, Policy Research at BEC. She has worked both in the Hong Kong and UK context for over 10 years on different aspects of sustainable cities, from climate resilience to reduction of carbon emissions from homes and commercial buildings and sustainable transport systems. Her current role involves working with the business community to support a transition to a sustainable low carbon Hong Kong.

## **MODERATOR**

**Dr. Michael Edesess** is an adjunct associate Prof. and visiting faculty in the Division of Environment and Sustainability, and the Finance Department at the Hong Kong University of Science and Technology. He is also chief investment strategist of US-based Compendium Finance and are search associate of the EDHEC-Risk Institute.



## EVENT HIGHLIGHT

By the year 2030, more than 80 percent of the population in the world’s developed countries will be living in cities. With urbanization continuing to be an upward global trend, the role of cities, and their business and political infrastructure, on achieving long-term sustainability is magnified. On Monday September 11, we were honored to host, with support from the Business Environmental Council, a presentation by Prof. Robert Gottlieb and Mr. Simon Ng to the HKUST community about their new book *Global Cities: Urban Environments in Los Angeles, Hong Kong and China*, in which they look at these distinct urban complexes and explore how global trade and science have affected their social structures and environments, as well as how science and business can contribute to policies that urge cities and their interconnecting networks toward long-term sustainability.

Seminar moderator Dr. Michael Edesess of HKUST opened the session by explaining how over the last five decades, urbanization has led to the emergence of a “new environmentalism” in which the focus has shifted from wilderness preservation to include pollution and other issues specific to cities. He builds the context that an understanding of urban environments, transport systems and trade flows has become central to the study of modern environmentalism and sustainability, and invited Mr. Simon Ng to illustrate this with examples from his work in Hong Kong.

### **Tackling Air Pollution from Ship Emission in Hong Kong**

Mr. Ng, Fellow and former Chief Research Officer at Civic Exchange, said that the book was a product of a shared vision between Civic Exchange in Hong Kong and the Urban and Environmental Policy Institute at Occidental College in Los Angeles. Both institutes believe that academia, research and business all play a role in shaping policy making, and that real change can happen when we successfully identify knowledge gaps and engage stakeholders in meaningful dialogue.



Mr. Ng gave an example of how this works by talking about his work in ship emissions inventory and control in Hong Kong and the Pearl River Delta. In 2005, noting that Hong Kong lacked regulations around ship emissions, Mr. Ng and his team set out to pinpoint how much emissions from berthed vessels contribute to air pollution in Hong Kong, one of the biggest seaports in the world. The use of cheap bunker oil in these vessels leads to the emission of SO<sub>2</sub>, NO<sub>2</sub>, heavy metals and particulate matter, which are all linked to higher annual mortality rates.

In 2008, the Hong Kong government commissioned the HKUST to conduct research, led by Mr. Ng, on ship emissions in Hong Kong. The research results confirmed that 80% of the air pollutants in Hong Kong is contributed by container vessels, mostly when they are at berth.

### **Tackling Air Pollution from Ship Emission in Hong Kong**

Mr. Ng, Fellow and former Chief Research Officer at Civic Exchange, said that the book was a product of a shared vision between Civic Exchange in Hong Kong and the Urban and Environmental Policy Institute at Occidental College in Los Angeles. Both institutes believe that academia, research and business all play a role in shaping policy making, and that real change can happen when we successfully identify knowledge gaps and engage stakeholders in meaningful dialogue.

### **Voluntary Action Among the Trade: Fair Winds Charter**

Armed with this knowledge, Mr. Ng's team began to engage the trade through ongoing meetings and discussions. Through these conversations, container operators came to understand the impact of bunker fuel and berthing emissions. Despite initial concerns around cost, most of the major shipping lines in Hong Kong eventually came together to form the Fair Winds Charter, committing to switch to cleaner fuels at berth. The trade hoped the Fair Winds would help push the government toward establishing regulation and creating a level playing field. Through this process, Civic Exchange organized meetings and public events to engage the government and the shipping and ancillary sectors.





### **Government support and Real Results**

After ongoing engagement with stakeholders and policymakers, a sequence of events was put into place, demonstrating the Government's support of air quality improvements. In 2012, the Hong Kong government introduced the Port Facilities and Light Dues Incentive Scheme for Ocean Going Vessels using Cleaner Fuel. In the following year, "A Clean Air Plan for Hong Kong" was released to outline Hong Kong's air quality challenges and corresponding measures and policies.

In 2015, with the Air Pollution Control fuel at berth regulation coming into effect, Hong Kong became the first city in Asia to regulate ship emissions through marine fuel used by Ocean Going Vessels. These combined efforts are estimated to enable a reduction of 12% for SO<sub>2</sub> and 6% for PM<sub>10</sub>.

### **Success factors and lessons learned from the Fair Winds Charter experience**

Mr. Ng attributes the successful outcome of this campaign to a number of factors, including an effective platform for partnership with the business sector, leadership, common goals and transparency. In particular, he highlighted the importance of sound scientific evidence, which played a critical role in supporting the actions of all parties and in convincing the government to take action. This was a great example of how businesses, science and policy can all work together to effect changes that benefit the society as a whole.

### **Improving Health and Wellbeing through Food in Los Angeles**

Mr. Ng's presentation was followed by sharing from Prof. Robert Gottlieb, who took the audience from Hong Kong all the way to the other side of the pacific – Los Angeles. A long time environmental activist and founder of the Urban and Environmental Policy Institute at Occidental College, Prof. Gottlieb also currently serves on the board of the Los Angeles Food Policy Council. The Council was created as a platform for research-informed collaborations among universities, the government and local businesses to improve the city's food systems.



Prof. Gottlieb shared an example about the Good Food for All movement, spearheaded by the LA food Policy, which has an aim of invigorating the local good food economy, strengthening agriculture and environmental stewardship, and improving the health and wellbeing of residents. To achieve these goals, the Council has set its priorities as closing the gap in access to healthy food, growing a fair and local food economy, strengthening local climate resiliency and building diverse leadership capacity to lead the movement.

### **Setting Values-Based Procurement Standards for the Food Industry**

Setting standards for food procurement is a key part of this agenda. The Good Food Purchasing Program was established to support and empower food service institutions to improve their food system. Institutions joining the program made a commitment to procuring foods and ingredients based on values that support local economies, environmental sustainability, the local workforce, nutrition and animal welfare. The Center for Good Food Purchasing was set up to analyze an institution's purchasing data, providing a branded verification seal to institutions that meet baseline requirements across these value categories. The standards for certification are stringent and are carefully considered by a panel of issue area experts and reviewers. The standards also undergo a regular review and update process that includes extensive stakeholder outreach and input, to ensure that they reflect the most up-to-date knowledge in the field and industry standards.

### **Community and Business Participation Bringing Changes in LA and Beyond**

The City of Los Angeles became the first institution to adopt the Good Food Purchasing Program, and other institutions soon followed suit. This model has already led to remarkable changes in the local food system, directing food spend locally and creating new jobs.



To close, Prof. Gottlieb mentioned the UN driven Agenda 21, C40 Cities climate leadership group, and the Fearless Cities International Municipalist Summit to highlight a new municipality in which, like the Good Food for All movement in LA, institutions, communities and even cities are stepping up and taking the initiative to drive positive change.

### **Panel: Defining the Roles of Business, Academia, Citizens and Other Stakeholders**

The presentations were followed by a panel discussion. Mr. Ng and Prof. Gottlieb were joined by a third panelist, Ms Maya D'Souza, representing the business sector as Senior Manager for Policy Research at the Business Environment Council. The panel was moderated by Dr. Michael Edesess.

In her introduction, Ms D'Souza said the Business Environment Council was established 25 years ago when businesses realized that environmental issues were impacting business performance. Today, its member companies continue to recognize the business case for environmental protection, and that the council supports the business community to work with research institutions and the government to lead actions that will make Hong Kong more sustainable.

Comparing the role of businesses between LA and Hong Kong, Prof. Gottlieb shared that in LA, businesses are often initially reluctant to change – for bottom-line reasons or otherwise. In many cases, with hopes of creating a more liveable community, individuals – Prof. Gottlieb calls them citizen scientists – would take things into their own hands and investigate alternative ways of doing business. When a case is supported by strong facts and clear potential benefits, change is possible.

Mr. Ng added that in Hong Kong, one other factor that businesses consider when deciding to invest in changes is an understanding of the government's position and its long-term vision. He also said that in Hong Kong, the concept of citizen scientists are not completely mature – across the board there is a need to polish the way we interpret data, present them and put constructive pressure on the government.







On the roles of businesses, individuals, academics and non-profits in shaping policy, the panelists all agreed that when it comes to influencing change, every process will be a new one. There's no magic formula for success. Rather, it is important to set common goals. In the realm of sustainability, it often comes down to the different parties' desire to do the right thing, but this can be influenced by research. The panelists also encouraged individuals and organizations to contribute their own skills, like IT, to advancing the process of change, rather than falling back on confrontational approaches.

### **Audience Probes Benchmarking Practices, Leadership and Open Data**

At the end of the session, an enthusiastic audience asked many meaningful questions ranging from how Civic Exchange handled river trade, how to benchmark the sustainability performance of similar cities, knowledge sharing, leadership and how to align stakeholders along a cause to drive altruistic action.

Here are some of the key takeaways shared by the panelists in this session:

- Civic Exchange has been working with the government to tighten standards for fuels in river vessels and the government is considering alternative fuels.
- Not only in Hong Kong, but the Chinese government is now paying more attention to emissions from both big and small river vessel.- Benchmarking is the basis for the Global Cities book, looking at LA, Hong Kong, and some cities in China. Comparing the issues and changes indifferent cities is a good way of learning about new models.
- While Hong Kong has no policy on open source data, there is increasing awareness on the need for data transparency and a movement towards open data.

The views expressed in this summary report are those of the speakers and moderators, and do not necessarily represent the opinions of the event organizers.