

# Shagun Mehrotra

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**Director**, Sustainable Development Solutions  
Center, New York  
[www.sdcenter.org](http://www.sdcenter.org)

## EDUCATION

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**PhD, Urban Planning**, specialization in infrastructure economics, 2011  
Columbia University, Graduate School of Arts and Sciences, New York

**MPhil, Urban Planning**, 2010  
Columbia University, Graduate School of Arts and Sciences, New York

**Master of International Affairs**, 2006  
Columbia University, School of International and Public Affairs (SIPA), New York

**Master of Science, Urban Environmental Management**, 2003 (1<sup>st</sup> rank) Asian  
Institute of Technology, Bangkok, Thailand

**Diploma in Architecture** (equivalent to Bachelors in Architecture), 2000  
Center for Environmental Planning and Technology, CEPT University, Ahmadabad,  
India

## AREAS OF EXPERTISE AND POLICY ENGAGEMENT

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Infrastructure Economics (Water, Transport, Energy), Climate Change and Cities,  
Global Urban Futures, Slums

## EXPERIENCE

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**The New School University, New York**  
*Milano School of International Affairs, Management, and Urban Policy,  
and Economics Department Affiliate, 2011 – present (750 students from 60  
countries)*

### ***Assistant Professor, Sustainable Development***

*Only full-time tenure-track faculty of a global urban sustainability-focused new  
graduate program that grew from 6 to 32 students (five-fold in the first year) and  
to 90 students (180% annual growth in second year). Advisor for Sustainable  
Development policy and planning concentration.*

*Managed and mentored:* 45 multi-disciplinary teams analyzing urban climate change risk and response in global cities on six continents with a focus on energy, water, and transport sectors; 11 multi-disciplinary teams to diagnose the political economy and market structure, craft supply-side reforms, and offer innovative policy solutions to reform inefficient public utilities—energy, water, transport in complex country conditions.

*Developed new graduate courses:* Climate Change and Cities; Infrastructure Economics: Equity with Efficiency (Global Urban Environmental Policy). Educated 120 young and mid-career private sector professionals and policy makers on sustainable development.

*Global Urban Futures:* Founding faculty member of a school-wide specialization focused on solving 21<sup>st</sup> century global urban challenges. Organizing committee of the development policy and thought, university-wide seminar series.

*Dean search committee and advisor* to university leadership on global outreach on sustainable development and partnership development in Latin America, Africa, and Asia.

*Visiting Scholar*, Summer 2013, George Washington University, Institute for International Economic Policy. Conducted research on urban climate risk and response.

### ***Director, Sustainable Development Solutions Center***

*Established and scaled up a New York based global policy advisory facility* focused on climate change (green growth), to include infrastructure economics and finance (privatization assessments), and poverty reduction in cities. The center specializes in crafting research based solutions to advise developing countries. Experimenting with crowd-sourced solutions and outsourcing.

*Co-Chair*, Urban Climate Change Research Network—global network of 450 researchers and practitioners. Developed \$8 million research proposal for a programmatic approach to Climate Change and Cities, including creation of six global hubs. Funding for initiating the second assessment report secured.

*Faculty Expert* for media queries on Climate Change, Infrastructure Economics and Finance (transport, energy, water), International Development, Urban Planning, and Slums.

*Adviser* to Earth Institute on African electrification for all—led by Europe’s leading private energy corporation in collaboration with Columbia University; and private investors from Wall Street and Sovereign Wealth Funds on infrastructure economics and finance.

*Global policy engagement*, led rapid urbanization, infrastructure, and climate change discussions at World Urban Forum, Naples and Medellin; United Nation’s Sustainable Development Solutions Network, Columbia University; Global Environmental Facility, Washington DC, Rio+20, Rio de Janeiro. Industry partnership conversations with private sector firms like Siemens, Erickson, and Nomura consulting, non-profits like Habitat for Humanity, with think-tanks like WRI and NRDC, and philanthropic institutions like Gates Foundation and Ford Foundation on sustainable urban development. Provided advice on climate change and cities to US-India “Track II” dialogue on Climate Change and Energy—advisory group composed of (high-ranking) civil society

individuals.

*Expert briefings and institution building* for United Nations' Sustainable Development Solutions Network's global taskforce with 15 high-level urban development experts on Inclusive, Productive, and Resilient Cities. The thematic group on cities provided technical inputs to the UN Secretary-General and the UN's High-level Panel of Eminent Persons on the Post-2015 Development Agenda and well as the United Nations Open Working Group. Member of the the Climate and Infrastructure Finance Working Group of UNSDSN's Financing for Sustainable Development Initiative. *Outcome:* Urban Sustainable Development Goal under consideration by United Nations' General Assembly.

### **Columbia University, New York**

#### ***Faculty Fellow, Graduate School of Arts and Sciences, 2006 – 2011***

Team-taught courses: Taught over 300 graduate students Urban Economics, Project Evaluation (Cost-Benefit Analysis, Spring and Fall 2008–2009; Advanced Planning Theory, Comparative Urban Labor Markets, Spring 2008; History and Theory of Planning, Fall 2007, Spring 2010.

### **NASA Goddard Institute for Space Studies and Columbia University, New York**

***Managing Director, Climate and Cities, Center for Climate Systems Research 2009 – 2012*** (CCSR team has 50 NASA and Columbia University scientists in New York)

#### ***Analytical Work***

*Managed interdisciplinary international team of experts* on climate risk assessment in Buenos Aires, Lagos, New York, and Delhi.

*Co-editor and coordinating lead author*, for first global scientific assessment of the state-of-the-knowledge on Climate Change and Cities (ARC3), *interdisciplinary* team of 106 authors from 50 developing and developed country cities.

#### ***Global Program Management***

*Conceptualized and established the Climate and Cities program*—a global four track policy advisory facility for city climate risk management (see [www.ucrn.org](http://www.ucrn.org)) including program strategy, recruitment and professional development of staff, and research quality assurance. Initiated regional research collaboration in Buenos Aires, Lagos, Istanbul, and Delhi.

*Led negotiations and fostered partnerships with clients and donors*—engaged with Mayors and city government leadership on climate change and infrastructure development—Abidjan, Buenos Aires, Copenhagen, Delhi, Gangneung, Lagos, Lima, London, Los Angeles, Mexico City, New York, Sao Paulo, Seoul, Sidney, and Toronto. Bilateral and multilateral organizations, including UNFCCC, UN-Habitat, Cities Alliance, World Bank, Inter-American Development Bank, Government of France, as well as non-profits and city networks—ICLEI, UCLG, and C40.

*Represented program at high-level global policy forums*—C40 Climate leadership Summit, Seoul; World Bank's Fifth Urban Research Symposium, Marseille; Mayors' Summit, COP15, Copenhagen; UN-Habitat's World Urban Forum 5, Rio; World Mayors' Council on Climate Change, Mexico City; 3<sup>rd</sup> UCLG World

Congress of Local and Regional Government Leaders, Mexico City, C40 Climate leadership Summit, Sao Paulo, ICLEI Resilient Cities, Bonn, UNFCCC, Bonn.

**Office of the Minister of Railways, Government of India New Delhi, and New York, 2007 – 2008**

(May – September 2009, located fulltime in-house, Office of the Minister of Railways, New Delhi; 1.4 million employees and \$20 billion annual revenue)  
Conceived book project, developed theoretical rationale and methodology for field research, conducted over 100 field interviews ranging from the Minister of Railways to front-line workers and stakeholders, including major consumers; Independently developed book proposal, accepted by Oxford University Press.  
Participated in high-level policy meetings, document review of Ministerial policy notes, wrote the book *Bankruptcy to Billions*; edited and proof read the text including developing media plan, endorsements, and publication details.  
Book launched on February 21, 2009 at the Presidential Palace in New Delhi by the President of India and translated into two additional languages (Hindi and Marathi). English version published in paperback after fourth impression in hardcover.

**Ryoichi Sasakawa Young Leaders' Fellow, Chengdu, China, Summer 2006  
Consultant, Heifer International**

Collaborated with local governments in six districts, Yunnan province, on enhancing rural livelihood through scientific rearing of cattle, infrastructure, and afforestation.  
Led a team to develop monitoring and evaluation systems for assessing the impact of Heifer's programs on the poorest households.

**World Bank Experience 2003 – 2005**

**Staff, World Bank, Infrastructure Vice-Presidency, Africa region, Water and Sanitation Program, Nairobi, Kenya, 2004 –2005**

*Developed the 'sub-network' and 'master-operator' solution for water utilities to expand supply to slums in Africa.* Clients advised included the French Development Agency, and corporatized water utility on reaching the poor with a 6 million Euro investment in Kisumu, Kenya—resulted in 10,000 new water connections in Nyalenda slum, Kisumu. Advised authorities in Dar es Salaam to create an incentive structure for community-led water supply as part of the US\$165 million Water and Sanitation Improvement Project, financed by the World Bank.

*Led the development and launch of the domestic private sector initiative, a US\$12 million three-year global technical assistance program financed by DFID. It included creation of, and strategic advice to, Maji Bora Kibera, an association of over 500 small-scale water providers operating in the largest slum of Africa, Kibera, Nairobi, to enable it to become a credible partner of formal service providers and its replication in Africa, Asia, and Latin America through the global domestic private sector initiative.*

*Created the three track business model for 'Serving the Urban Poor' business—(1) National framework for water supply to the poor (in response to a Ministerial*

request for policy advice); (2) Innovating with reformed utilities for service expansion to the urban poor; (3) Institutionalizing domestic private sector service providers. Developed and implemented WSP's urban strategy for Africa—business plans for 2004 and 2005, and an internal evaluation of the program's impact in four African countries: Benin, Ethiopia, Kenya, and Uganda.

World Bank staff support, Tsunami relief and reconstruction, Asian Disaster Preparedness Center, Bangkok, January.

***Team leader and principal researcher, World Bank and ProVention Consortium, applied research grantee, Bangkok, Thailand, 2003 – 2004***

*Identified institutional innovation in earthquake risk reduction based on prior work in post-earthquake reconstruction in Porbandar, India.*

Institutionalized risk reduction technology through local stakeholders, developed and implemented social marketing campaign.

Published findings in English and Gujarati, Government of Gujarat used manual for state-wide community-led risk reduction efforts.

***Consultant, World Bank, Infrastructure Vice-Presidency, Africa region, Water and Sanitation Program, Nairobi, Kenya, 2003***

Regulation of small-scale water providers in Kibera, reviewed literature, prepared regulatory models, and stakeholder consultations—workshops with domestic private water providers and slum residents.

Initiated the formation of an association of small-scale domestic private water providers.

## **Asian Institute of Technology, Bangkok, Thailand, 2002**

### ***Research Associate***

Collaborated with Transport Development Research Institute on small vehicle urban public transport solutions for Ho Chi Min City, Ministry of Transportation, Government of Vietnam.

Engaged with Asian Disaster Preparedness Centre, Bangkok, preparing project proposals, including initiating partnerships with South Asian Association of Regional Co-operation.

Developed proposals for European Union's Asia-Link project, including role of illegal trade along the Mekong on decentralization, and regional university collaboration.

Provided editorial support to review technical reports on environmental management. Co-edited annual activity report for UN-Habitat's Urban Management Program.

## **Center for Environmental Planning and Technology, Ahmedabad, India, 1995 – 2001**

### ***Development Management, Private Practice***

Led a team to develop participatory post-disaster reconstruction strategy in partnership with Government of Gujarat, Porbandar police department.

Classified morphological typologies of 40 Indian cities across scales—city, neighborhood, household—Dean's grant financed the teamwork.

Developed project proposals and collaborated with partners (government, private

developers, and civil society groups) to manage and execute projects like: (1) Gandhi Institute for Sustainable Development for the Minister of Education, Government of Kerala, South India; (2) Micro-zoning for the Ganges river edge redevelopment and environmental management, Assi Ghat Banaras, North India; (3) Development of a master plan for World Heritage Site, Hampi, Karnataka, South India (4) Developing a prototype for low cost housing, four dwellings for a total of US \$1,600 on a plot of 20 x 40 feet in Indore, Madhya Pradesh, Central India. Built in 2001.

## **Urban Planner and Architect Enzo Somigli, Florence, Italy, 1998**

### ***Urban Planner***

Designed housing typologies for local economic development of an ancient industrial site on the periphery of Florence.

Analyzed urban development in north Italy (Florence, Milan, Venice, and Siena).

Assisted in a UNESCO world heritage conservation proposal, Bhagmati river, Nepal (some work done in India), subsequently UNESCO recognized site as World Heritage.

## **RESEARCH GRANTS AND HONORS (awarded 26 grants and honors)**

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Provost Faculty Research Grant	2014
The Bellagio Center, Rockefeller Foundation grant by Institute of International Education for Urban SDG strategy meeting	2013
Provost Faculty Research Grant, The New School	2013
Earth Institute grant for World Urban Forum, Naples	2012
Provost Mentoring Grant, The New School	2012
Provost Faculty Research Grant, The New School	2012
Provost Faculty Research Grant, The New School	2011
Dean's Research Grant (3 year), The New School	2011
Earth Institute grant for ICLEI Resilient Cities and UNFCCC, Bonn	2011
C40 Large Cities Climate Summit, Sao Paulo, invited scholar	2011
Cities Alliance, grant for completion of research and launch of book on Climate Change and Cities (ARC3), (Task team leader, and co-PI with Cynthia Rosenzweig)	2010
Graduate School of Arts and Sciences, Columbia University, research grant	2010
Taraknath Das Foundation, South Asia Institute travel research grant, Columbia University	2009
Climate change research fellowship, CCSR, Columbia University and NASA GISS	2009
Government of France and World Bank grant for commissioned research for the 5th Urban Research Symposium, Marseille	2009
Congratulatory note from the President of India for my book <i>Bankruptcy to Billions: How the Indian Railways Transformed</i>	2009
Congratulatory note from the Minister of Railways, Government of India for my research on Indian Railways	2008
Ryoichi Sasakawa Young Leaders' Fellowship, Weatherhead East Asian Institute, Columbia University (declined)	2007

Graduate School of Arts and Sciences, Columbia University, Faculty Fellowship	2006– 2011
Ryoichi Sasakawa Young Leaders' Fellowship, Weatherhead East Asian Institute, Columbia University	2006
School of International and Public Affairs Fellowship, Columbia University, May (declined)	2006
World Bank spot award for “Displaying exceptional personal commitment to making a development impact in pro-poor urban work”, for my initiative in mobilizing 500 private water vendors in Africa’s largest slum to create an association of small-scale providers	2005
Grand prize, Capturing Reality: Water and Sanitation in the Developing World, Water and Sanitation Program’s Staff Photography Contest	2004
John A. Hrones prize for outstanding student in Urban Environmental Management, Asian Institute of Technology, Thailand	2003
World Bank grant, Urban Development for Economic Growth and Poverty Reduction, Urban Research Symposium, Washington	2003
ProVention Consortium and World Bank applied research grant for disaster risk reduction, awarded to 65 researchers from 27 countries, Geneva	2003
Fellowship for postgraduate studies in urban environmental management, Asian Institute of Technology, Thailand	2002– 2003
United Nations Environment Program secondment for the inception of the South Asian Youth Environmental Network, Kathmandu, Nepal	2002
Sri Suryakant Patel prize for the first position in design studio I and II and award for the highest marks in class, at Institute of Environmental Design, Anand, India	1995

## **PUBLICATIONS** (2 books, 45 research papers, policy reports, grant proposals, op-eds)

### **BOOKS**

1. *Climate Change and Cities: Second Assessment Report* with C. Rosenzweig, W. Solecki, S. Dhakal, and P. Romero-Lankao, Eds., (**Cambridge University Press**, publisher).
  - Coordinating lead author for Urban Transport chapter.
  - Editor responsible for issues of Urban Planning and Design; Economics, Finance, and Private Sector; and Urban Energy.
2. *Climate Change and Cities (ARC3) First Assessment Report*, with C. Rosenzweig, W. Solecki, S. Hammer, Eds., London: **Cambridge University Press**. Forewords by (1) Mayor of New York City; (2) Chair, Intergovernmental Panel on Climate Change; (3) United Nations Under-Secretary General and Executive Director, UN-Habitat; (4) Director, The Earth Institute at Columbia University and Special Advisor to UN Secretary General Ban Ki-Moon on the Millennium Development Goals.
 

2011
3. *Bankruptcy to Billions: How the Indian Railways transformed*, with S. Kumar, New Delhi: **Oxford University Press**, 2009. Foreword by
 

2009

Prime Minister of India. English hardcover version in fourth impression and translated into two languages. Paperback edition published by OUP in July 2010, second impression in 2011.

## BOOK CHAPTERS

4. Lead author, Adapting to climate change in cities, Section 8 Urban infrastructure and livelihoods (with J. A. Carmin, A. Fenech, H. Fünfgeld, Y. Labane, J. Li, R. Roggema F. Thomalla and C. Rosenzweig), Chapter 30 in *Climate Adaptation Futures*, Edited by Palutikof, J, et al., **Wiley Pty Ltd**. *Climate Adaptation Futures* Proceedings of The National Climate Change Adaptation Research Facility (NCCARF), Government of Australia. 2013
5. Lead author, *Framework for City Climate Risk Assessment: Buenos Aires, Delhi, Lagos, and New York*, Chapter 6 in *Cities and Climate Change: Responding to an Urgent Agenda Volume 2*, **World Bank**, Washington, DC (with C. E. Natenzon, A. Omojola, R. Folorunsho, J. Gilbride, & C. Rosenzweig). 2012
6. Urban Climate Change (with Solecki, W., Rosenzweig, C., and Hammer, S.), in *The Urban Transformation: Health, Shelter and Climate Change*, Eds. Sclar, E., Volavka-Close, N., and Brown, P. **Routledge**. 2012
7. “Urban Transport and Climate Change”, Coordinating Lead Author, with Lefevre, B., & Zimmerman, R. and Lead Authors, H. Gercek, K. Jacob, S. Srinivasan, in C. Rosenzweig, W. Solecki, S. Hammer, and S. Mehrotra, Eds., *Climate Change and Cities (ARC3)*, London: **Cambridge University Press**, 2011. 2011
8. “Cities, Disasters, and Climate Risk”, Coordinating Lead Author, with W. Solecki, & C. Rosenzweig, and Lead Authors, C. E. Natenzon, A. Omojola, R. Folorunsho, J. Gilbride in C. Rosenzweig, W. Solecki, S. Hammer, and S. Mehrotra (Eds.). *Climate Change and Cities (ARC3)*, London: **Cambridge University Press**, 2011. 2011
9. “Urban Climate Change in Context”, Author, with C. Rosenzweig, W. Solecki, S. Hammer in C. Rosenzweig, W. Solecki, S. Hammer, and S. Mehrotra (Eds.). *Climate Change and Cities (ARC3)*, London: **Cambridge University Press**, 2011. 2011

## PEER-REVIEWED ARTICLES

10. Cities Lead The Way In Climate-Change Action. London: **Nature**, Vol. 467, 21 October (with C. Rosenzweig, W. Solecki, & S. Hammer). 2010
11. Lead author, *Framework for City Climate Risk Assessment, Buenos Aires, Delhi, Lagos, and New York*, Commissioned Research, **World** 2009



**Bank**, Washington, DC (with C. E. Natenzon, A. Omojola, R. Folorunsho, J. Gilbride, & C. Rosenzweig).

12. Lead author, *Rogues No More? Water Kiosk Operators Achieve Credibility in Kibera. Water and Sanitation Program*, Nairobi: **World Bank**, (with C. Brocklehurst, & A. Morel). 2005

### **IN PROGRESS**

13. *Reinventing Infrastructure Economics*, book manuscript.
14. Spatial and Temporal Variance in Urban Climate Risk, working paper.
15. Inclusive Infrastructure: Equity with Efficiency in Indian Railways, working paper.
16. *Optimal Gloom: A Meta-Theoretical Heuristics*, working paper.

### **MUSEUM EXHIBIT**

17. *Masterpieces of Everyday New York: Objects as Story*, Sheila C. Johnson Design Center at Parsons The New School for Design, New York. My installation was a Statue of Liberty replica partially immersed in water as a provocation to reflect on urban climate change impacts. 2013

### **RESEARCH PAPERS**

18. *Radical Incrementalism? Reforming the Indian Railways*. Working paper. New York: Columbia University. 2008
19. *Infrastructure Economics, a Literature Review*. Working paper. New York: Columbia University. 2007
20. *Deepening Indian power Sector Reforms: Is Cherry Picking an Option?* Working paper. New York: Columbia University. 2006
21. *Just City in an Unjust World?* Working paper. New York: Columbia University. 2006
22. *Power to the Poor: Can Slum Franchise in Delhi Reduce Electricity Distribution Loses?* Working paper. New York: Columbia University. 2006
23. *Supporting the market that serves the urban poor: Emerging responses to enhance the role of local private sector providers*, Background paper for the Domestic Private Sector Participation Initiative Workshop. Water and Sanitation Program, World Bank, Nairobi, June, (with J. Plummer, & B. Collignon). 2005

24. *Regulating Small-Scale Providers in Kibera*, (with A. Morel), in Harvey, P. eds., *Towards the Millennium Development Goals: Proceedings of the 29<sup>th</sup> Water, Engineering and Development Centre Conference*, Loughborough University, United Kingdom, December. 2003
25. *Constraints in Implementing Urban Development Policy in India from the Perspective of International Development Professionals: Study of Sustainable Cities Program in Chennai*, Master's thesis, Asian Institute of Technology, Thailand. 2003
26. *Innovative Public-Private Partnership: User Contributions for Roads in Indore, India*. Web publication, Privatization, November, Development Gateway. 2002
27. *Making Centers and Boundaries in Indian Urban Space: A Study of Ahmedabad, India*, Thesis, School of Architecture, Centre for Environmental Planning and Technology, India. 2001
28. *Mythology and the Archetype*, *Architecture+Design*, Vol. XVIII, No 3, India. 2001

## **POLICY REPORTS, GRANT PROPOSALS, OP-EDS**

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29. Lead author, *Goal 7: Empower Inclusive, Productive, and Resilient Cities*. Urban goal and targets for *Agenda for Sustainable Development*, (page 30) Report for the UN Secretary-General, (inputs to the Post 2015 United Nations Development Agenda). Prepared by the Leadership Council of the Sustainable Development Solutions Network, 23 October 2013 (with inputs from A. Revi, and R. Tuts). 2013
30. Contributor, *Why the world needs an urban sustainable development goal*. Policy note prepared by UNSDSN Thematic Group on Sustainable Cities. Policy note supported by UN-Habitat, UCLG, Cities Alliance, and ICLEI. 2013
31. Lead author, *The Urban Opportunity: Enabling Transformative and Sustainable Development*. Background paper for the United Nation Secretary-General's High-Level Panel of eminent persons on the Post-2015 Development Agenda, New York (with A. Revi, C. Rosenzweig, W. Solecki). 2013
32. Programmatic Approach to Climate Change and Cities, \$8 million research proposal. 2011
33. *Cities Can Lead Nations*, Copenhagen, State of the Planet, Op-Ed, Earth Institute, Columbia University (with C. Rosenzweig, & S. 2009

Hammer).

34. Cities Are Moving Ahead, Copenhagen, State of the Planet, Op-Ed, Earth Institute, Columbia University (with S. Hammer, & C. Rosenzweig). 2009
35. First Urban Climate Change Research Network (UCCRN) Assessment Report on Climate Change in Cities (ARC3), Cities Alliance proposal, World Bank, Washington DC. 2009
36. *Gangneung Super-Low-Carbon City Project*, Memo to Mayor of Gangneung, South Korea, June 5. 2009
37. *Climate and Cities: Crafting a Global Institutional Structure for Risk Assessment and Adaptation Planning*, White Paper to World Bank Management, NASA GISS and Columbia University, April 13. 2009
38. *Mayors' IPCC: International Panel on Climate Change in Cities (IPC3) First Assessment Report*, White Paper to World Bank Management, NASA GISS and Columbia University, April 13. 2009
39. *Global Framework for Climate and Cities*, The Earth Institute, Columbia University, Cross-Cutting Initiative, seed grant proposal April 30. 2009
40. *Delhi: Brief Inventory of Climate Change Initiatives*, Center for Climate Systems Research, Earth Institute, Columbia University, New York. 2008
41. *Creating Risk-Based Climate Change Information for Urban Areas*, Urban Research Symposium, Commissioned Research Proposal, World Bank Washington DC (with C. Rosenzweig, C. E. Natenzon, & R. Folorunsho). 2008
42. *Institutionalizing Local Knowledge for Risk Reduction in Earthquake Prone Settlements of the Poor*, Young Researcher's Project Brief, Geneva: ProVention Consortium. 2007
43. *Where Big Meets Small*, Access, December, Water and Sanitation Program. Washington DC: World Bank. 2004
44. *Water vendors to become sub-network operators in Kisumu, Kenya*, Access, December, Water and Sanitation Program. Washington DC: World Bank. 2004
45. *Institutionalizing local knowledge for risk reduction in earthquake prone settlements of the poor, Porbandar district, Gujarat, India*, 2003

manual published in Gujarati and English, [www.urbangovernance.org](http://www.urbangovernance.org), used by the Government of Gujarat for state-wide knowledge sharing in high-risk rural settlements.

46. *Regulating Small-Scale Providers for Water: A Case Study in Kibera, Nairobi*. An Interim Report, Water and Sanitation Program. Nairobi: World Bank. 2003
47. *Footprints: A comparative study of 40 Indian cities*, Monograph, India: School of Planning, Center for Environmental Planning and Technology, December (A. Bhosle, D. Deshpandy, U. Sharma, & J. Sundaresan). 2001
48. *Strategy for Post-Earthquake Rehabilitation*. Zindagi Samchar (Sindhi Newspaper), May, Gujarat, India (with N. Chatwani). 2001
49. *Rebuilding homes, rehabilitation strategy for five villages*, report for the Government of Gujarat, Porbandar district, India, May, (with N. Chatwani). 2001
50. *Urban development in north Italian towns*, three volume study, Italy. 1998

## **MEDIA CITATIONS OF RESEARCH, INTERVIEWS, & BOOK ENDORSEMENTS**

### ***Podcasts, Videos, and Blogs***

Forty-six podcasts and videos based on class teachings covering global cities on issues of infrastructure economics and climate change. Eighty-eight blog posts in three years on Sustainable Development Solutions Center illustrating policy relevant analytical work on climate change risk and responses in global cities and infrastructure economics—transport, energy, water.

### ***Media citation for ARC3 (Climate Change and Cities Book)***

Københavns Kommune (City of Copenhagen); Center for Energy, Marine Transportation and Public Policy, Columbia University; COP15, Copenhagen; ARUP (Private Consulting Firm); University of Copenhagen; Danish Development Research Network; Earth Institute, Columbia University; Urban Climate Change Research Network; *Munhwa*, May 20, (Korean newspaper); ICLEI Resilient Cities, Bonn; National Climate Change Adaptation Research Facility (NCCARF), Queensland; *Nature*, the Science and the City issue of October 21, 2010; ARC3 featured in *Scientific American*, (September, 2011).

### ***Media Interviews for ARC3 (Climate Change and Cities Book)***

*Nature*, for the Science and the City issue of October 21, 2010; Copenhagen Video Interview with Edie Lush (Hub Culture); Indian National Newspaper, Dainik Bhaskar; NBC's African-American news website, *The Grio*; CNN; Mexican National Television, *Canal 22*; NPR's WNYC, April 1, 2011; interviews with *Valor Econômico* (Brazilian

Business newspaper); *Reuters Thompson*, London; *Earthsky*; German National Public Radio.

### **Book endorsements**

*ARC3 (Climate Change and Cities)*, endorsed by (1) Mayor of Mexico City; (2) Mayor of São Paulo; (3) Governor of Lagos State; (4) Senator, Indonesia; (5) Mayor of Toronto; (6) Executive Director, ICLEI Local Governments for Sustainability.

### **Media citation for *Bankruptcy to Billions (Infrastructure Reform Book)***

*The American*, 13 February; *Business India*, 22 March; *Business Line*, 13 March; *Business Standard*, 23 February and 13 March; *Economic Times*, 24 February; *Down to Earth*, 15 March; *The Hindu*, 22 February; *Hindustan Times*, 21 February; *Indian Express*, 22 February; *India Today*, 9 March; *Locksatta*, 24 February; *Oxford Book News*, Economics section, April; *SIPA NEWS*, Columbia University, May.

### **Book endorsements**

*Bankruptcy to Billions* was endorsed by (1) *Montek Singh Ahluwalia*, Deputy Chairman, Planning Commission, Government of India; (2) *Jagdish Bhagwati*, University Professor, Economics and Law, Columbia University; (3) *N.R. Narayana Murthy*, Chairman of the Board and Chief Mentor, Infosys Technologies Limited; (4) *R.K. Pachauri*, Director-General, The Energy and Resources Institute and Chair, Intergovernmental Panel on Climate Change; (5) *C.K. Prahalad*, Paul and Ruth McCracken Distinguished University Professor, Ross School of Business, University of Michigan.

### **PRESENTATIONS AND WORKSHOPS** (speaker at over 100 forums over the last decade)

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| 1. | Organizer with ICLEI, High-Level Dialogue with Mayors of Seoul, Bogota, Bonn, and Bristol, <i>Mayors en route to Sustainability - towards and beyond 2015</i> , The New School, New York | 2014 |
| 2. | Urban expert invited by UN Secretary-General for the Climate Summit 2014, United Nations, New York   | 2014 |
| 3. | Roundtable, Mobilizing Cities Behind the SDGs—The Mayors’ Meet, Mayors of Durban, Johannesburg, Melbourne, New York, Paris, Rio, and Shenzhen at Columbia University, New York.          | 2014 |
| 4. | Invited expert, CEO-led consultative meeting for structuring the Sustainable Cities Integrated Approach Program, Global Environment Facility, Washington DC                              | 2014 |
| 5. | Speaker, Ideal or Pragmatic: Infrastructure in Goal 11 Urban SDG Targets and Indicators Meeting, London (participated remotely).   | 2014 |

6. Co-chair, Process and Progress on Climate Change and Cities: Second Assessment Report of Urban Climate Change Research Network panel with IADB, Dar es Salaam Municipality, and IHS at the Seventh World Urban Forum, Medellin. WUF7 convened 142 countries, 139 Mayors, 42 Ministers, and 22,000 urban stakeholders. 2014
7. Chair and Organizer, Global Urban Solutions: Evidence –based solutions for a rapidly urbanizing world, The New School, New York 2014
8. Speaker, Urban SDG: Origins, Institutional Process, and Progress, Wilson Center’s *Roundtable for urban donors and policymakers*, World Bank, Washington DC 2014
9. Invited lecture, *Sustainable Systems: Climate Change and Cities*, special event at the United Nations Trusteeship Council organized by Government of Denmark and New School University. Audience of 400 young designers from 94 countries, United Nations Headquarters, New York. 2013
10. Expert group meeting, *Urbanization: The Century of Cities*, The Ditchley Foundation, Oxford, England (unable to attend). 2013
11. Co-organizer and plenary speaker, Climate Change and Cities Second Assessment Report, Urban Climate Change Research Network, international three-day workshop with over 100 international scholars representing 14 interdisciplinary teams to develop chapter outlines and assessment writing strategy, Columbia University, New York. 2013
12. One of nine international experts invited for Urban Sustainable Development Goals and Sustainable Cities Initiative strategy development. Week-long workshop, Bellagio Center, Rockefeller Foundation, Italy. 2013
13. Urban Sustainable Development Goals consultation and writing workshop, Bellagio Center, Rockefeller Foundation, Italy (participated remotely). 2013
14. Urban Thematic Group, United Nations Sustainable Development Solutions Second Leadership Council Meeting. Drafted text for the proposed Urban SDG and associated three targets, inputs submitted to UN Secretary General. 2013
15. Invited speaker, Urban Thematic Group, Cities: Smart, Healthy, and Productive, Solutions for a Global Urban Future, United Nations’ Sustainable Development Solutions Network, First 2012

- Leadership Council Meeting. UN Secretary-General Ban Ki-moon and 70 senior scientists, and world leaders from governments, private sector, and civil society.
16. Invited panelist, urbanization and infrastructure at high-level meeting to launch and discuss United Nations' Sustainable Development Solutions Network, Columbia University. 2012
  17. Invited speaker, annual meeting of the World Society for Ekistics, Villa Colonna Bandini, Capodimonte, Naples 2012
  18. Research and University roundtables, UN-Habitat, World Urban Forum, Naples 2012
  19. Organizer and speaker, Launch of the second state-of-the-knowledge assessment on Climate Change and Cities, World Urban Forum attended by urban development leaders from 157 countries, Naples 2012
  20. Briefing, Global Urban Futures, a discussion on pedagogy at The New School, World Urban Forum, Naples 2012
  21. Partnership dialogue with Tecnológico de Monterrey, Mexico City 2012
  22. High-level meeting with the Government of Madhya Pradesh on Health, Infrastructure, and Climate Change, Bhopal. 2012
  23. Organizer, Sustainable Urban Future: City Solutions for Climate Change, Rio+20 Mayoral Forum (represented by colleagues) 2012
  24. Speaker, Reinventing the Wheel: Improving Urban Transport in the Global City, Policy Options amid Growth and Crises, The New School, New York. 2011
  25. Panelist and co-organizer, New York book launch, Climate Change and Cities, The New School, New York. 2011
  26. Invited lecture, graduate course on infrastructure and energy policy, Columbia University, New York. 2011
  27. Speaker, Association of Collegiate Schools of Planning, 52nd Annual Conference, Salt Lake City (unable to attend). 2011
  28. Discussant, The United Nation's World Economic and Social Survey 2011, *The Great Green Transformation*, Development Thought and Policy Seminar, The New School, New York. 2011

29. Invited faculty, presentation of research to Board of Governors, The New School for Public Engagement, New York. 2011
30. Journal of Planning Education and Research, Editor's Workshop for New Scholars, Tufts University, Medford. 2011
31. Discussant, Community Infrastructure Finance Facility, UN-Habitat, and Earth Institute, Columbia University, New York. 2011
32. Chair, Reality Check Workshops on Lagos state government's climate change response, *ICLEI Resilient Cities*, Local Governments for Sustainability, Bonn. 2011
33. Speaker, book launch with Mayor of Mexico City and Executive Director of UN-Habitat, *ICLEI Resilient Cities*, Bonn. 2011
34. Organizer, joint technical discussion on UN-Habitat's Global Report and ARC3, focused on climate change and cities, *ICLEI Resilient Cities*, Bonn. 2011
35. Observer, UNFCCC, Climate Change Conference, Bonn. 2011
36. Policy dialogue on state legislature to combat climate change, Sao Paulo State Ministry of Environment, Sao Paulo. 2011
37. Speaker, *Education for Sustainable Development, C40 Large Cities Summit*, Sao Paulo. 2011
38. Lecture, *Investing in African Urban Infrastructure*, high-level investor forum for scaling-up investments in Africa, Earth Institute, Columbia University, New York. 2011
39. Lecture, *Reinventing Infrastructure Economics: Theory and Practice*, Virginia Commonwealth University, Richmond. 2011
40. Lecture, *Reinventing Infrastructure Economics: Theory and Empirics*, Rutgers University, New Brunswick. 2011
41. Lecture, *Climate Change and Cities*, The New School, New York. 2011
42. Discussant, Experts Roundtable on Climate Change and Cities, *A Multi-Hazard City Risk Index*, Infrastructure Sector Unit (EASIN), East Asia and Pacific Region, The World Bank, Washington DC. 2011
43. Lecture, *Reinventing Infrastructure Economics: Theory and Practice*, Cornell University, Ithaca. 2011



44. Invited Scholar, *World Mayors Summit on Climate Change*, Mexico City. Invited by Mexico City Mayor, pre-COP16, Mexico. 2010
45. Delegate, *3rd World Congress of United Cities and Local Governments*, Mexico City. Over 2000 local and regional leaders participated. 2010
46. Organizer and panelist, *Climate Change and Cities: Knowledge for Action*, book talk at Tecnológico de Monterrey, Mexico City. 2010
47. Guest speaker, *Global Commonwealth: Responding to Climate Change in Cities*, talk to over 1,000 high-school students, The Daly College, Indore, India. 2010
48. Session convener, *International Climate Change Adaptation Conference*, National Climate Change Adaptation Research Facility (NCCARF), Queensland, Australia, July (represented by team member). 2010
49. Invited speaker, ICLEI Resilient Cities, Bonn, Germany, May (represented by team member). 2010
50. Invited lecture, *Creating State-of-the-knowledge for climate change and cities*, book talk, Agriculture and Urban Land Use, April, Barnard College, Columbia University, New York. 2010
51. Invited lecture, *Global Public Goods—Economic Development for a Changing Planet*, Multidisciplinary Approaches to Development, February, School of International and Public Affairs, Columbia University, New York. Other guest speakers include prominent development scholars Joseph Stiglitz and Jose Antonio Ocampo. 2010
52. Invited lecture, *Reinventing Infrastructure Reforms*, Multidisciplinary Approaches to Development, February, Columbia University, New York. This is a foundational course in the NSF-funded IGERT International Development and Globalization PhD program. 2010
53. Invited lecture, *Global Commons: Planning for a Changing Planet*, Department of Planning, February, Columbia University, New York. 2010
54. Invited speaker, *The Right to the City: Bridging the Urban Divide*, University Round Table, Rio de Janeiro, Brazil, March 22–26. 2010
55. Invited speaker, Climate Change and Cities session, *UN-Habitat World Urban Forum*, Rio de Janeiro, Brazil, March 22–26. 2010

56. Invited lecture, ARC3 Summary for Researchers, and panel discussant: ARC3 and Brazilian Cities, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, March 24. 2010
57. Invited by United Nations Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, United Nations for inputs on *Climate Change and Extreme Events, and Disasters: The Science and Economics*, February 10, New York. 2010
58. Invited scholar, *Sustainable Development Network Forum 2010, Act Now, Act Together, Act Differently—Going Forward on Climate Action*, January 19–21, World Bank, Washington DC. 2010
59. Environment Secretary, Mexico City, high-level meeting to discuss inclusion of climate risk assessment into public expenditure. 2010
60. Panelist, Mayors’ Summit, University of Copenhagen, (with ARC3 co-editors and Mayors of Melbourne, Copenhagen, Vancouver). Invited by Copenhagen Mayor, COP15, Denmark, December. 2009
61. Opening plenary speaker, *Fifth Urban Research Symposium, Cities and Climate Change: Responding to an Urgent Agenda*, World Bank, Marseille, France, June. Commissioned researcher, invited by the Government of France and World Bank to address over 600 researchers from 80 countries. 2009
62. Invited researcher, *A Dialogue on Cities and Climate Change*, September 21–23, World Bank, Washington, DC. 2009
63. Office of the Mayor, Lima, Peru, high-level meeting to discuss inclusion of climate risk assessment into infrastructure investments. 2009
64. Speaker, *Post-Copenhagen: Global Institutional Structure for Climate and Cities in Africa, Asia, and Latin America*, 2<sup>nd</sup> “Mayors’ IPCC” Symposium, Marseille, June. 2009
65. Moderator, *Open Debate: Cities in IPCC and Cities’ IPCC*, 2<sup>nd</sup> “Mayors’ IPCC” Symposium, Marseille, June. 2009
66. Strategy presentation to senior management, *Climate and Cities: Implications for CDS and Pro-poor City Programs*, Cities Alliance Secretariat, World Bank, Washington DC, April. 2009
67. High-level Gangneung Mayoral delegation—three site visits for a feasibility assessment for Low-Carbon-City—subsequently, project approved by Government of Korea, Gangneung City. 2009

68. Head of delegation, Demilitarized Zone (DMZ) field-visit for pre-feasibility assessment, Gangneung, Korea. 2009
69. Invited delegate, (one of three researchers), Third C40 Large Cities Climate Summit, Seoul. 2009
70. Speaker, Responding to Climate Change in Lagos and Delhi, First “Mayors’ IPCC” Symposium, Seoul. 2009
71. Speaker, Pre and Post-Copenhagen: Global Institutional Structure for Climate and Cities, First “Mayors’ IPCC” Symposium, Seoul. 2009
72. Strategy presentation to senior management, Programmatic approach to climate and cities, Cities Alliance and World Bank, Washington DC, March 5. 2009
73. Invited speaker and workshop participant, Preliminary Framework for Urban Climate Risk Assessment, Fifth Urban Research Symposium, sponsored research scientific committee review workshop, World Bank, Washington DC. 2009
74. Invited lecture, *Crafting global institutional structure for climate change*, School of International and Public Affairs, Columbia University, New York, March 19. 2009
75. Coordinator and speaker, Transport working group, ARC3 inception workshop, School of International and Public Affairs, Columbia University, New York, November. 2008
76. Convened High-level meeting with Y. V. Reddy, Governor Reserve Bank of India, and development researchers at Columbia University. 2008
77. Participant, *Measuring Development Effectiveness: Progress and Constraints*, Independent Evaluations Group, World Bank, Washington, D.C, Thursday, April 10. 2008
78. Lecture, *Achieving the Millennium Development Goals: Stakeholders, Reform, and the Poor*, Roberto Lenton’s class on Water policy, School of International and Public Affairs, Columbia University, New York, March 10. 2008
79. Lecture, *Infrastructure Economics and Development*, Tecnológico de Monterrey, Mexico City, November 5. 2007
80. Lecture, *Bankruptcy to Billions: How the Indian Railways* 2007

*transformed in three years.* Lectures in Planning, Columbia University, New York, October 16.

81. Speaker, Gates Foundation, *How reformed water utilities in Africa improve service to the urban poor*, Seattle, June 11. 2007
82. Participant, Third Biennial Ph.D. Colloquium, University of British Columbia, Vancouver, Canada, June 4–10. 2007
83. Participant, Evaluating Social Programs, Abdul Latif Jameel Poverty Action Lab, MIT, Cambridge, May 29 – June 2. 2007
84. Co-convener, *Lectures in Planning*, Urban Planning, Columbia University, New York, Spring and Fall. 2007
85. Participant, Third Annual Symposium on Development and Globalization, Columbia University, New York, November 2–3. 2006
86. Speaker, *Africa: Infrastructure Solutions for the Urban Poor*, Young Development Practitioner’s Forum, Chengdu, China, July. 2006
87. Participant, Annual Symposium on Development and Globalization, Columbia University, November 11-12. 2005
88. Participant, Conference on reforming the United Nations, Columbia University, New York, October. 2005
89. Speaker, Co-organizer, *Unlocking the Potential of the Domestic Private Sector in the Delivery of Water and Sanitation Services to the Poor*, Global Practitioners’ Workshop, Nairobi, June. 2005
90. Participant, Twentieth session of the governing council of United Nations Human Settlements Program, Nairobi, April. 2005
91. Participant, Seminar on consumer voice and citizen report cards in Africa, Water and Sanitation Program and Water Aid, Nairobi, March. 2005
92. Participant, *Cities: Grounding the Development Agenda*, Urban Forum, World Bank, Washington DC, March. 2005
93. Client Presentation, (Dar es Salaam Water and Sewerage Authority), *East Africa: How utility reforms work for the poor, Water Security: Policies and Investments*, Water Week, World Bank, Washington DC, March. 2005
94. Water Week, World Bank, Washington DC New (meetings with 2005

sector managers, Bank new staff orientation, WSP learning events (courses on negotiations, procurement), March.

95. Urban Week, World Bank, Washington DC. 2005
96. Speaker, Understanding the role of small-scale sanitation providers in Kibera, Nairobi, Kenya, February. 2005
97. Participant, National Geographic photography workshop in Santa Fe, New Mexico, August. 2004
98. Participant, Millennium development goals in Kenya, high level consultative group meeting, Nairobi, November. 2004
99. Speaker, Making utility reform work for the urban poor in Kisumu, Kenya, July. 2004
100. Speaker, Regulating small-scale water providers in Kibera, Brown Bag Lunch, World Bank, Washington, August. 2004
101. Participant, Developing Business and Infrastructure in Africa, international conference, Financial Times and International Financial Corporation, Nairobi, May. 2004
102. Participant, Public expenditure analysis and management, core course, Poverty Reduction and Economic Management, World Bank, Washington DC, January. 2004
103. Speaker, *Kisima* lecture series, Water and Sanitation Program, World Bank, Nairobi, April. 2003
104. Moderator, 600 participants at the World Environment Day symposium partnering with International Union for Conservation of Nature (IUCN), World Wide Fund for Nature (WWF), United Nations Environment Program, Asian Development Bank, and the Global Water Partnership, Asian Institute of Technology, Bangkok. 2002 & 2003
105. Led a twenty-member student delegation to the 4th Asian Mayors Forum, United Nations Economic and Social Commission for Asia and the Pacific, Bangkok. 2002
106. Organizer, International Women's Day campaign, Asian Institute of Technology, Bangkok. 2002

## LANGUAGES

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Fluent in English, Hindi, Urdu; Spanish (learning)

## REVIEWER

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### ***Journals and Books***

*Science*, American Association for the Advancement of Science

*International Public Management Journal*

*Housing Studies*

Oxford University Press, Academic Division, (2 book proposals)

The Energy Resource Institute, (TERI)

UN-Habitat, Global Report for Human Settlements, (declined)

### ***Grants and development programs***

Gates Foundation Grant Proposals, 2007 – present

Government of New Zealand, Ministry of Science and Innovation, 2012 investment round review of proposals for over \$6 million for research on infrastructure economics and risk reduction

National Climate Change Adaptation Research Facility, Australian Government, 2010

Development Marketplace Global Competition, offering US\$4 million in awards for local projects on Innovations in Water, Sanitation and Energy Services for Poor People, World Bank, Washington DC, 2005

External reviewer for evaluation of UN-Habitat's Climate Change and Cities Initiative, a \$6 Million three year global technical assistance program

## PROFESSIONAL MEMBERSHIPS

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Co-Director, Urban Climate Change Research Network

American Economic Association

International Society for New Institutional Economics

New York Academy of Sciences

American Collegiate Schools of Planning

American Planning Association

## COUNTRY AND REGIONAL EXPERIENCE

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*Countries:* Brazil, Canada, China, Colombia, Denmark, France, Germany, India, Italy, Kenya, Korea, Mexico, Nepal, Peru, Singapore, Tanzania, Thailand, UAE, Oman, Uganda, United States, and Vietnam

*Regions:* East Africa, Latin America, Southeast and East Asia, and South Asia

## ***Cities analyzed***

*Mentored and managed climate change risk and response in 45 team analyses of* Addis Ababa (Ethiopia), Algiers (Algeria), Athens (Greece), Bangkok (Thailand), Bogotá (Colombia), Boston (United States), Buenos Aires (Argentina), Dakar (Senegal), Delhi (India), Dhaka (Bangladesh), Dubai (UAE), Durban (South Africa), Guatemala City (Guatemala), Hanoi (Vietnam), Harare (Zimbabwe), Helsinki (Finland), Ho Chi Minh (Vietnam), Hong Kong (China), Istanbul (Turkey), Jakarta (Indonesia), Kampala (Uganda), Kingston (Jamaica), Kolkata (India), Lagos (Nigeria), Lima (Peru), London (United Kingdom), Los Angeles (USA), Manila (Philippines), Medellín (Colombia), Melbourne (Australia), Mexico City (Mexico), Nairobi (Kenya), New Orleans (United States), New York City (United States), Orlando (USA), Rabat (Morocco), Rio de Janeiro (Brazil), Sao Paulo (Brazil), Seoul (South Korea), Shanghai (China), Shenzhen (China), Tokyo (Japan), Toronto (Canada), Ulanbataar (Mongolia), and Venice (Italy).

*Mentored and managed infrastructure reform in 11 team analyses with a focus on* energy, water, and transport sectors in Budapest (Hungary), Buenos Aires (Argentina), Istanbul (Turkey), Johannesburg (South Africa), Kinshasa (DRC), Lagos (Nigeria), Los Angeles (USA), Manila (Philippines), Maputo (Mozambique), New York City (United States), Rio de Janeiro (Brazil).

*Mentored and managed 18 analytical works on* slum diagnostic, private infrastructure coping mechanisms, and responses for some the world's largest slums in Ankara (Turkey), Bogota (Colombia), Cairo (Egypt), Cape Town (South Africa), Durban (South Africa), El Alto (Bolivia), Gaza (Palestine), Johannesburg (South Africa), Karachi (Pakistan), Kinshasa (Democratic Republic of Congo), Lima (Peru), Mexico City (Mexico), Mumbai (India), Nairobi (Kenya), Port-au-Prince (Haiti), Rio de Janeiro (Brazil), Santiago de Cali (Colombia), Tehran (Iran).