

GREEN GROWTH KNOWLEDGE PLATFORM
ANNUAL CONFERENCE 2017

SUSTAINABLE INFRASTRUCTURE

NOVEMBER 27-28, 2017
WORLD BANK HQ | MC 2-800



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Green Growth Knowledge Platform Annual Conference 2017

SUSTAINABLE INFRASTRUCTURE

November 27-28, 2017
World Bank, 1818 H Street NW, Washington DC | MC 2-800

All papers, presentations and speaker bios can be found at: www.ggkp.org/event/conference2017

November 27, 2017

09:00 – 09:15 Welcome and Opening Remarks

Room: MC 2-800 **Laura Tuck**, Vice President for Sustainable Development, World Bank

Opening Remarks from the GGKP Partners

- **Orestes Anastasia**, Global Green Growth Institute
 - **Kumi Kitamori**, Organisation for Economic Co-operation and Development
 - **Fulai Sheng**, UN Environment
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09:15 – 10:00 Keynote

Room: MC 2-800 **Mar Reguant**, Northwestern University
Large Scale Renewables: Successes and Challenges

10:00 – 11:00 Plenary – Powering a Sustainable Future: Understanding Energy Infrastructure Needs

Room: MC 2-800 Chair: **Paul Ekins**, University College London

- **Keywan Riahi**, International Institute for Applied Systems Analysis
Energy Investment Needs for Fulfilling the Paris Agreement and Achieving the Sustainable Development Goals
- **Alejandro Moreno**, previously World Bank
Charting the Diffusion of Power Sector Reform in the Developing World

Discussant: **Najib Saab**, Arab Forum for Environment and Development

11:00 – 11:30 Coffee Break (served outside MC 2-800)

11:30 – 13:00

Parallel Sessions A

Room: MC 2-800

A1 – Transport and Low Carbon Pathways

Chair: **Maria Marcela Silva**, Transport and ICT Global Practice, World Bank

- **Meriem Hamdi-Cherif**, International Research Center on Environment and Development
The Transportation Sector as a Lever for Reducing Long-term Mitigation Costs in China
- **James Seong-Cheol Kang**, Global Green Growth Institute
Sustainable Transport through Provision of Electric Vehicle Taxis: A Case Study in Seoul
- **Vivien Fisch**, International Research Center on Environment and Development
Investment Needs of Transport Infrastructure Along Low Carbon Pathways

Discussant: **Shomik Mehndiratta**, Transport and ICT Global Practice, World Bank

Room: MC 4-100

A2 – Rural Electrification

Chair: **Jonathan Coony**, Trade and Competitiveness Global Practice, World Bank

- **Jörg Peters**, RWI- Leibniz Institute for Economic Research
Demand for Off-grid Solar Electricity: Experimental Evidence from Rwanda
- **Fan Zhang**, South Asia Region, World Bank
Benefits of Electrification and the Role of Reliability: Evidence from India
- **Moussa Blimpo**, Africa Region, World Bank
The Demand for Rural Electrification in Africa

Discussant: **Haileselassie Medhin**, Ethiopian Development Research Institute

Room: MC 8-100

A3 (Policy Session) – Infrastructure for Disaster Risk Management: Overcoming Barriers to Scaling up Nature-based Solutions

Chair: **Stéphane Hallegatte**, Global Facility for Disaster Reduction and Recovery, World Bank

- **Bregje van Wesenbeeck**, Deltares
Implementing Nature-based Flood Protection: Principles and Implementation Guidance
- **Ugo Guarnacci**, European Commission
Co-design, Co-development and Co-implementation of Nature-Based Solutions for Urban Resilience: The EU perspective

Discussants:

- **Julie Rozenberg**, Sustainable Development Practice Group, World Bank
- **Glenn-Marie Lange**, Environment and Natural Resources Global Practice, World Bank
- **Jonny Sadler**, Manchester Climate Change Agency

13:00 – 14:00

Lunch (served outside MC 2-800)

14:00 – 15:30

Parallel Sessions B

Room: MC 2-800

B1 – Energy, Infrastructure and Low Carbon Pathways

Chair: **Norbert Kurilla**, State Secretary in the Ministry of Environment, Slovakia

- **Stefan Ambec**, Toulouse School of Economics
Decarbonizing Electricity Generation with Intermittent Sources of Energy
- **Dina Subkhankulova**, University College London Energy Institute
Demand Side Management: A Case for Disruptive Behavior
- **Prudence Dato**, Savoie Mont Blanc University
Investment in Energy Efficiency, Adoption of Renewable Energy and Household Behaviour: Evidence from OECD countries

Discussant: **Ron Benioff**, National Renewable Energy Laboratory and Low Emission Development Strategies Global Partnership

Room: MC 4-100

B2 – Transport and Structural Transformation

Chair: **Cletus Springer**, Organization of American States

- **Théophile Bougna**, Development Research Group, World Bank
Roads and the Geography of Economic Activities in Mexico
- **Sam Asher**, Development Research Group, World Bank
The Ecological Footprint of Transportation Infrastructure
- **Simon Alder**, University of North Carolina at Chapel Hill
The Effect of Transport Infrastructure on India's Urban and Rural Development

Discussant: **Nancy Lozano-Gracia**, Urban, Rural and Social Global Practice, World Bank

Room: MC 8-100

B3 (Policy Session) – A Sustainable Look at the Belt and Road Initiative

Chair: **Mustafa Moinuddin**, Institute for Global Environmental Strategies

- **Kumi Kitamori**, Organisation for Economic Co-operation and Development
The Low-Carbon Transition and Sustainable Infrastructure
- **Fulai Sheng**, UN Environment
Belt and Road: Opportunity and Challenges for Sustainable Development
- **Somik Lall**, Urban, Rural and Social Global Practice, World Bank
Who Wins, Who Loses: Articulating the Spatially Differentiated Impacts of BRI Investments

15:30 – 16:00 **Coffee Break** (served outside MC 2-800)

16:00 – 17:30 **Plenary – Going with the Flow: Water Infrastructure and Sustainable Development**

Room: MC 2-800 Chair: **Guang Zhe Chen**, Water Global Practice, World Bank

- **Ahmed Mushfiq Mobarak**, Yale University
*No Sh*t: Demand Estimation with Strategic Complementarities with an Application to Sanitation in Bangladesh*
- **Edward Glaeser**, Harvard University
Water, Health and Wealth
- **Richard Damania**, Water Global Practice, World Bank
Uncharted Waters: The Economics of Water Scarcity and Variability

Discussants: **Jim Hall**, University of Oxford

19:00 **Conference Dinner**

November 28, 2017

09:00 – 09:45 **Keynote**

Room: MC 2-800 **Catherine Wolfram**, Haas School of Business, University of California Berkeley
Energy and Development

Discussant: **Moussa Blimpo**, Africa Region, World Bank

09:45 – 11:00 **Plenary – Regulation for Sustainable Infrastructure**

Room: MC 2-800 Chair: **Bruno Oberle**, École polytechnique fédérale de Lausanne

- **Emmanuelle Auriol**, Toulouse School of Economics
Can Supranational Infrastructure Regulation Compensate for National Institutional Weaknesses?
- **Stéphane Straub**, Toulouse School of Economics
Funding and Financing Regulated Infrastructure
- **Michael Grubb**, University College London
The Policy and Regulation of UK Electricity Market Reform

Discussant: **Thomas Heller**, Climate Policy Initiative

11:00 – 11:30 **Coffee Break** (served outside MC 2-800)

11:30 – 13:00 **Parallel Sessions C**

Room: MC 2-800 C1 – Roads, Deforestation and Agricultural Productivity

Chair: **Karla Gonzalez Carvajal**, Transport and ICT Global Practice, World Bank

- **Juliano Assunção**, Climate Policy Initiative and PUC-Rio
Agricultural Productivity and Deforestation in Brazil
- **David Kaczan**, Environment and Natural Resources Global Practice, World Bank
Can Roads Contribute to Forest Transitions?
- **Eduardo Souza-Rodrigues**, University of Toronto
A Structural Dynamic Land Use Model for the Amazon Rainforest

Discussant: **Nicolas Gerber**, Center for Development Research, University of Bonn

Room: MC 4-100 C2 – Adaptation and Long Term Decision-Making

Chair: **Arame Tall**, Climate Change, World Bank

- **Christian Gollier**, Toulouse School of Economics
Term Structures of Discount Rates: An International Perspective
- **Ki Han Song**, Korea Transport Institute
Application of DMDU (Decision Making Under Uncertainty Methodology) on Korean Transportation Infrastructure Feasibility Study
- **Raghav Pant**, Environmental Change Institute, University of Oxford
System-of-Systems Framework for Global Infrastructure Vulnerability Assessments

Discussant: **Joe Grice**, Office of National Statistics, United Kingdom

Room: MC 5-100 C3 (Policy Session) –Assessing the Sustainability and Resource Requirements of Infrastructure Strategies

Chair: **Raouf Dabbas**, Friends of Environment, Jordan

- **Anu Ramaswami**, University of Minnesota
The Weight of Cities: Resource Requirements of Future Urbanisation
- **Roy Brooke**, Municipal Natural Assets Initiative
Municipal Natural Asset Management as a Sustainable Infrastructure Strategy: The Emerging Evidence
- **Oshani Perera**, International Institute for Sustainable Development
Sustainable Asset Valuation (SAVi) Tool
- **Josh Sawislak**, AECOM and **Ryan Bartlett**, WWF
Assessing the Sustainability and Climate Resilience of Infrastructure to Catalyse Better Decisions

13:00 – 14:00 **Lunch** (served outside MC 2-800)

14:00 – 15:30 **Parallel Sessions D**

Room: MC 2-800 D1 – Mitigation and Long Term Decision-Making

Chair: **Kevin Urama**, African Development Bank

- **Michael Grubb**, University College London
Innovation and Adaptability of Energy Systems: Some Evidence and a Mathematical Exploration
- **Jan Siegmeier**, Mercator Research Institute on Global Commons and Climate Change
Keeping Pigou on Tracks: Second-best Carbon Pricing and Infrastructure Provision
- **Alexander Pfeiffer**, Institute for New Economic Thinking, Oxford
Dead on Arrival? Implicit Stranded Assets in Leading IAM Scenarios

Discussant: **Nick Robins**, Inquiry into the Design of a Sustainable Financial System, UN Environment

Room: MC 4-100 D2 – Adaptation and Flooding

Chair: **K. Vijaya Lakshmi**, Development Alternatives

- **Robert J. Nicholls**, University of Southampton
Global Investment Costs for Coastal Defense Through the 21st Century
- **Xi Hu**, University of Oxford
The Spatial Exposure of China's Infrastructure System to Flooding Risks in the Context of Climate Change
- **Xavier Espinet Alegre**, Sustainable Development Practice Group, World Bank
Prioritization of Road Interventions in Nampula and Zambezia, Mozambique under Changing Flood Risk and Other Deep Uncertainties

Discussant: **Jaco Tavenier**, Organisation for Economic Co-operation and Development

Room: MC 5-100 D3 (Policy Session) – Implementing Sustainable Infrastructure

Chair: **Alexandra Oppermann**, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

- **Maria Cecilia Ramirez**, Inter-American Development Bank
Lessons from Four Decades of Infrastructure Project Related Conflicts in Latin America and the Caribbean
- **Michael Mullan**, Organisation for Economic Co-operation and Development
Climate-Resilient Infrastructure: Getting the Policies Right
- **Raffaello Cervigni**, Environment and Natural Resources Global Practice, World Bank
Enhancing the Climate Resilience of Africa's Infrastructure

15:30 – 16:00 **Coffee Break** (served outside MC 2-800)

16:00 – 17:30 Plenary – Sustainable Finance & Viable Investments: Where the Twain Shall Meet

Room: MC 2-800 Chair: **Jordan Schwartz**, Infrastructure, PPPS and Guarantees, World Bank

- **Maria Eduarda Gouvea Berto**, Secretary of Finance, Municipality of Rio de Janeiro, former Managing Director, Estruturadora Brasileira de Projetos (EBP)
- **Nick Robins**, Co-Director, Inquiry into the Design of a Sustainable Financial System, UN Environment
- **Leonardo Martínez-Díaz**, Global Director, Sustainable Finance Center, World Resources Institute
- **James Hempstead**, Managing Director, Moody's Investors Services
- **Patricia Rollin**, Managing Director, Wye Holdings

17:30 – 17:45 Closing Remarks

Room: MC 2-800 Chair: **Benjamin Simmons**, Green Growth Knowledge Platform

- **Kumi Kitamori**, Organisation for Economic Co-operation and Development
- **Marianne Fay**, Sustainable Development Practice Group, World Bank

ABOUT THE GGKP

The Green Growth Knowledge Platform (GGKP) is a global partnership of international organizations and experts that identifies and addresses major knowledge gaps in green growth theory and practice. Founded by the Global Green Growth Institute (GGGI), the Organisation for Economic Co-operation and Development (OECD), the United Nations Environment Programme (UN Environment) and the World Bank, the GGKP draws together over 50 partner organizations.

Each year the GGKP's founding partners alternate the hosting of the Annual Conference. This year, the Fifth GGKP Annual Conference is hosted by the World Bank. The Sixth GGKP Annual Conference will be hosted by the OECD in Paris, France, in late 2018.



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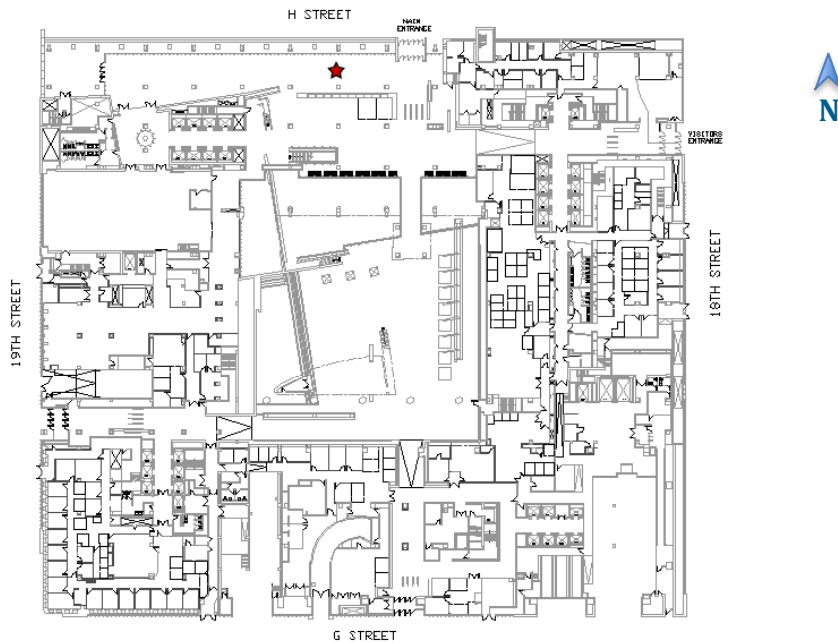
Swiss Confederation

*The Green Growth Knowledge
Platform is financially supported
by the Swiss Confederation*

ROOM LOCATIONS

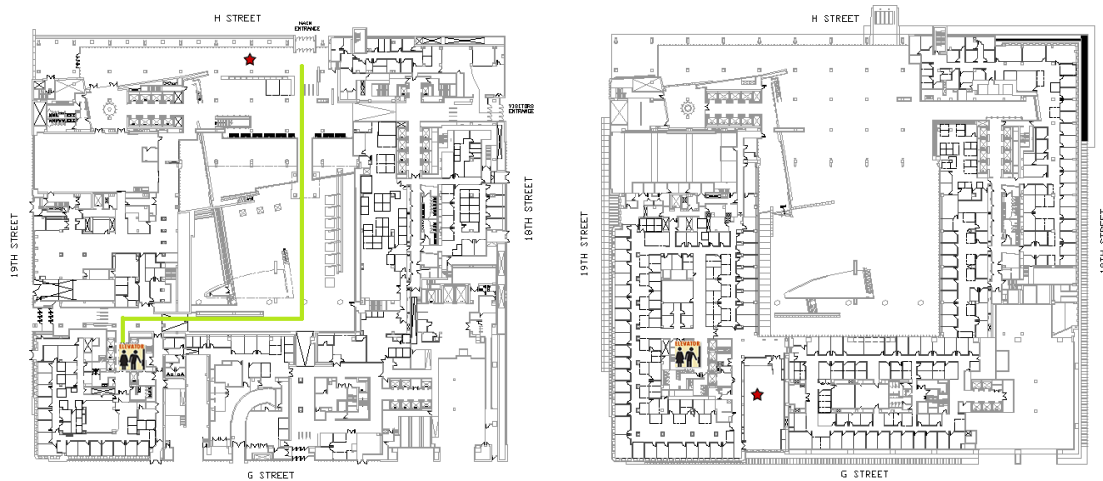
Registration

Conference registration is located on the ground level of the MC building. External participants must enter through the H Street entrance (1818 H Street NW), and pass through security to collect their conference badge.



MC 2-800

All conference plenaries, coffee breaks and lunches will take place in room MC 2-800, located on the second floor. Use the SW elevators to access the room. The map below shows how to access the room from the registration desk.



MC 4-100, MC 5-100, MC 8-100

MC 4-100 (located on the fourth floor), MC 5-100 (located on the fifth floor) and MC 8-100 (located on the eighth floor) can be accessed using any of the building's elevators. To access MC 2-800 from these rooms, use the SW elevators.

