

# **Daniel Hoornweg, PhD**

**Associate Professor and Richard Marceau Research Chair, Faculty of Energy Systems and Nuclear Science at University of Ontario Institute of Technology, and Chief Safety and Risk Officer, Province of Ontario**

Oshawa, ON, CA

International expert in developing sustainable cities through the flow of natural resources

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## **Description**

For two decades, Daniel Hoornweg, PhD, travelled the world leading the development of sustainable communities. His global expertise in this area provided a pivotal impact on improving the operation and growth of hundreds of cities by optimizing their flow of materials and energy.

In 2012, Dr. Hoornweg was appointed Associate Professor and Richard Marceau Research Chair (formerly Jeffrey S. Boyce Research Chair in Natural Gas as a Transportation Fuel) in the Faculty of Energy Systems and Nuclear Science, a natural next step since energy is central to infrastructure and city development, the core of his distinguished career. He currently holds appointments as the Province of Ontario's chief safety and risk officer, and senior fellow of the Global Cities Institute at the University of Toronto (U of T) in Ontario. Available in 2017, he authored the book *Cities and Sustainability, A new approach*.

While serving as an adjunct professor with UOIT for six years, he helped steer the development of more than 300 cities across North America, South America, Africa and Asia as the World Bank's lead urban advisor on Sustainable Cities and Climate Change. Headquartered in Washington, DC, he managed more than 50 infrastructure investment projects with \$3.5 billion investment. He continues as a fellow with the World Bank's Sustainable Development Network.

On secondment from the World Bank, he served as director of International Development at CH2M Hill Consulting in Toronto, where he assisted the firm's international business program in India and Nepal. Prior to joining the World Bank, he was Solid Waste manager with the Government of Bermuda's Ministry of Works and Engineering.

Prior to his impact abroad, Dr. Hoornweg began his career working for local governments on recycling, composting and waste management issues. Fascinated by the ability to affect change at an individual level, as well as citywide, his motivation for improving communities through waste reduction was spurred by their successes. He held the position of Waste Management co-ordinator with the City of Guelph, Ontario where he helped launch Canada's first municipal Green Plan, and introduced the first local government Roundtable on the Economy and Environment. He also served as Recycling co-ordinator with the Municipality of Peel Ontario; Well-site engineer for Schlumberger of Canada in Calgary, Alberta; and Well-site safety inspector on Lake Erie with the Ontario Ministry of Natural Resources.

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## **Industry Expertise**

Education/Learning, Sanitation and Waste Management, Renewables and Environmental, Public Policy, Environmental Services, Research

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## Topics

Energy Systems and Public Policy, Material Flows in Cities (Energy and Solid Waste), Sustainable Communities, Natural Gas as A Transportation Fuel

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## Affiliations

Professional Engineers Ontario, Evergreen CityWorks, Columbia University, Massachusetts Institute of Technology, John Hopkins School of Advanced International Studies, University of Toronto, Cambridge University, World Research Institute, World Energy Council, International Energy Association, World Business Council for Sustainable Development , American Society of Civil Engineers

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## Education

### University of Toronto

PhD Philosophy, Environmental (Civil) Engineering

### University of Guelph

MSc Environmental (Municipal) Engineering, School of Engineering

### University of Waterloo

BSc Civil Engineering (Geotechnical)

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## Accomplishments

### Associate Professor, Faculty of Energy Systems and Nuclear Science, and Richard Marceau Research Chair, UOIT

Dr. Hoornweg currently teaches Emerging Energy Systems and Fossil Fuel Energy Conversion at UOIT. He has been appointed UOIT's representative among several stakeholder groups including the Natural Gas Vehicles Association, the Canadian Energy Council, Durham Region Roundtable on Climate Change, and the Clarington Green Infrastructure Review Committee.

### Fellow, Sustainable Development Network, World Bank

A fellow with the World Bank's Sustainable Development Network, Dr. Hoornweg serves as an Advisor on sustainable communities, infrastructure services, finance, public policy and energy systems.

### Chief Safety and Risk Officer, Province of Ontario

Reporting directly to the Board of Technical Standards and Safety Authority (TSSA), Dr. Hoornweg is responsible for overseeing TSSA's provision of public safety. Since 2012, he has served as a public advocate for risk management.

**Senior Fellow, Global Cities Institute, University of Toronto**

Dr. Hoornweg is a senior fellow with the Global Cities Institute at U of T, which serves to build on the strengths of a rapidly expanding global network of scholars, city leaders, design and planning professionals, key international organizations, foundations and industry innovators dedicated to securing a better future for cities.

**Corporate Advisor to Philips, GDF Suez, and McKinsey & Company**

Dr. Hoornweg serves as a corporate advisor and member of GDF Suez Urban Strategy Council, and Philips Livable Cities Think-Tank.

**Lead Author, Cities and Climate Change: An Urgent Agenda**

As lead author, Dr. Hoornweg published the World Bank's Cities and Climate Change: An Urgent Agenda, a two-volume report summarizing the 2010 Marseille Research Symposium that brought together more than 700 researchers, 300 research papers, and more than 50 private sector participants worldwide. The conference and published report had a significant influence in moving the World Bank and its member countries toward a more aggressive response to climate change, mitigation and adaptation.

**Board Member, Waste Diversion Ontario (WDO)**

Dr. Hoornweg is a board member of the WDO, which provides oversight for the development, implementation, and operation of diversion programs for waste designated by the Minister of the Environment.

**Advisory Council Member, Evergreen CityWorks**

He is an advisory council member of Evergreen CityWorks, a national non-for-profit organization dedicated to building sustainable cities with a focus on four key areas: housing, transportation, city building and innovation. The advisory council provides strategic guidance on optimizing existing infrastructure and new sustainable city building initiatives.

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