



EMERGING TRADE TRENDS

Rapid Urbanization.

Snapshot

- The pace of urbanization is staggering in many parts of Asia and in Africa. Over the next 15 years, the urban population of Asia and Africa will grow by 340 and 140 million people, respectively. This will put huge demand on the infrastructure of Asian and African cities, requiring an investment of more than US\$55 trillion over the next 25 years.
- Large-scale infrastructure projects in rapidly urbanizing cities present opportunities for Canadian firms with expertise in architecture and engineering services, project financing, transportation, international development project management, waste management, power generation, and telecommunications.
- Getting involved in infrastructure projects can be highly challenging, however. To leverage these opportunities, firms can partner with local suppliers and join consortiums in bidding processes.

Background

The number of global **megacities**—cities with more than 10 million people—has tripled since 1990, and is expected to reach 41 by 2030, up from 29 today.¹ Over the past two decades, urban growth has been driven by rapid industrialization in China and Asia. (See Chart 1.) Since 2000, China’s urban population increased by 60 per cent, from 300 to 500 million people.

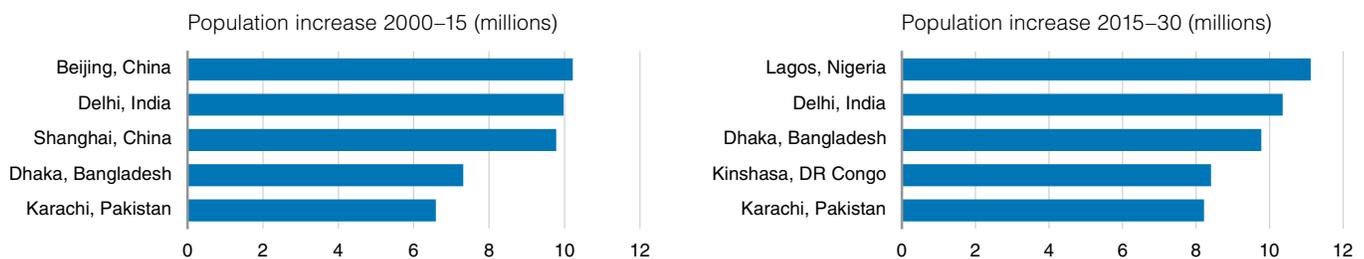
Looking ahead, China’s urban population is expected to grow by an additional 33 per cent, or 161 million people, accounting for close to half of the urban population growth across Asia.² According to the Global Infrastructure Outlook by the Global Infrastructure Hub, more than US\$50 trillion in infrastructure investment will be required in Asia over the next 25 years, and China will account for over half of this amount, or US\$28 trillion.³

The world’s city growth will also include a rapidly urbanizing **Africa**, with an urban population expected to grow by 140 million over the next 15 years.⁴ By 2030, the population of the largest city in Nigeria, Lagos, will increase from 13 million to 24 million people, and the population of Kinshasa, the capital of the Democratic Republic of the Congo, will almost double from 11 million to 20 million people.⁵

Rapidly urbanizing cities in Asia and Africa are facing huge demands on their **infrastructure**, services, labour forces, and environment. These global cities need infrastructure and proper planning to thrive, with transportation infrastructure, power, telecommunications, housing, waste management, and water among the essentials. Moreover, many of the world’s megacities are located in vulnerable areas such as along coastlines, fault lines, and near volcanos, making them vulnerable to climatic and other types of **disruption**, and boosting the need for a strong and resilient infrastructure.⁶

Chart 1

Top Five Fastest-Growing Cities Shift From East Asia to Africa; South Asia Still Growing Strong



Sources: The Conference Board of Canada; United Nations, Department of Economic and Social Affairs, Population Division, *World Urbanization Prospects, the 2014 Revision*.

- 1 United Nations Habitat, *World Cities Report 2016* (Nairobi: United Nations, 2016), <http://wcr.unhabitat.org/>.
- 2 United Nations, Department of Economic and Social Affairs, Population Division (2014), *World Urbanization Prospects, the 2014 Revision*, <https://esa.un.org/unpd/wup/Publications/>.
- 3 Global Infrastructure Hub, Oxford Economics, *Global Infrastructure Outlook—Forecasting Infrastructure Investment Needs and Gaps—50 Countries, 7 Sectors, and 5 Regions to 2040* (Sydney, Australia: Global Infrastructure Hub, 2015), accessed November 22, 2017, <https://outlook.gihub.org/>.
- 4 Robert Muggah and David Kilcullen, “These Are Africa’s Fastest-Growing Cities—And They’ll Make or Break the Continent,” *Agenda: The Stories Shaping the Global, Regional and Industry Agendas*, May 4, 2016, <https://www.weforum.org/agenda/2016/05/africa-biggest-cities-fragility/>.
- 5 United Nations, Department of Economic and Social Affairs, Population Division (2014), *World Urbanization Prospects, the 2014 Revision*, <https://esa.un.org/unpd/wup/Publications/>.
- 6 World Meteorological Organization, “Urban Development—Megacities,” accessed March 2, 2018, <https://public.wmo.int/en/our-mandate/focus-areas/urban-development-megacities>.

Challenges and Opportunities

Rapid urbanization puts significant pressure on the financial resources of emerging countries. However, it also creates opportunities for Canadian firms that want to take part in this large-scale, unprecedented development.

Challenge: Substantial Need for New Infrastructure

Cities require a variety of social and economic infrastructure to harness their potential. Inefficient and non-existent infrastructure creates bottlenecks and slows the flow of people and goods. China now spends more on infrastructure than do North America and Western Europe combined.⁷ It is estimated that emerging markets require almost \$2 trillion in infrastructure investment each year to meet their current needs.⁸ Moreover, the environmental tolls are staggering, as rapidly urbanizing centres struggle to keep pace with their infrastructure needs.

Opportunities

Leverage Canadian expertise. This global phenomenon creates a world of opportunity for Canadian urban and infrastructure expertise, including architecture, consulting and engineering services, maintenance, or project financing—a \$135 billion sector in Canada.⁹ Canadian businesses can also provide transportation, waste management, power generation, communications, and other infrastructure services to these rapidly urbanizing areas of the world.

New sources of funding for infrastructure projects. Government budgets are the biggest source of infrastructure financing, but there is also significant investment from the private sector and from national and multilateral development banks.¹⁰ China started its own Asian Infrastructure Investment Bank (AIIB) and joined forces with other BRICS countries to establish the New Development Bank (NDB). In addition, Canada recently became a member of the AIIB as a way of strengthening relations with China and in the Asian region. Canadian infrastructure firms can look for ways to tap into these new sources of infrastructure financing.

Investing. Investing in city infrastructure presents a huge opportunity for Canadian investors, through private equity, venture capital, public-private partnerships, or other investment tools. Investors must be aware of the risks involved in these markets and weigh them properly against the rewards, taking a long-term view.

7 Jonathan Woetzel and others, *Bridging Global Infrastructure Gaps* (McKinsey Global Institute, 2016), accessed November 22, 2017, <https://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/bridging-global-infrastructure-gaps>.

8 Ibid.

9 The Canadian Trade Commissioner Service, Infrastructure, accessed November 22, 2017, <http://tradecommissioner.gc.ca/sectors-secteurs/infrastructure-infrastructures.aspx?lang=eng>.

10 Tomoko Suzuki and others, *Infrastructure Financing Trends: What Are the Current Trends in Emerging Market Infrastructure Spending? (English)* (Washington D.C.: World Bank Group, 2016), accessed November 22, 2017, <http://documents.worldbank.org/curated/en/193791468197952709/Infrastructure-financing-trends-what-are-the-current-trends-in-emerging-market-infrastructure-spending>.

Navigating the Trend

The opportunities for contributing to the infrastructure needs of rapidly urbanizing cities can be enormous. To navigate them, businesses should do the following:

Build In-Depth Knowledge on Rapidly Urbanizing Markets and Their Infrastructure Needs

- The world's rapidly urbanizing cities are in non-traditional markets in Africa and Asia. Their infrastructure needs may be completely different from traditional markets. For example, they may skip entire types of infrastructure and move directly to the next iteration, such as skipping telephone lines and moving directly to cellular phone infrastructure.
- Be conscious of the operating environment and identify the potential obstacles. Regulations, red tape, and the ease of doing business can be very different. Investing in a new market is a risky endeavour, and preparation is essential.
- Tap into available resources to learn about infrastructure opportunities in emerging markets. For example, the G20 developed the Global Infrastructure Hub (GIH)¹¹—a web platform to facilitate information sharing about infrastructure projects around the world and connections between public and private investors. The GIH's project pipeline database provides companies with key information about upcoming infrastructure projects and what stages they are at (e.g., initial government announcement, feasibility study, government approval).¹²

Find Trusted Partners

- The scale and scope of infrastructure projects can be daunting. Partnering can bring many benefits, including broadening the capabilities a company can offer, having on-the-ground experience in a targeted market, and providing access to financing.
- Smaller Canadian firms may feel left out of large-scale projects and opportunities. They can seize these opportunities by joining consortiums in bidding processes for large-scale projects and finding local partners.
- Investors and firms can use partnerships as a strategy to spread risk and meet the needs of large projects. For example, Google Inc. partnered with Convergence Partners, Mitsui, and International Finance Corporation (part of the World Bank Group) to create CSquared, a partnership with \$100 million to build Internet infrastructure in Africa.¹³

¹¹ Global Infrastructure Hub, "Welcome to GI Hub," accessed November 22, 2017, <https://www.gihub.org/>.

¹² Global Infrastructure Hub, "Global Infrastructure Project Pipeline," accessed November 22, 2017, <https://pipeline.gihub.org/>.

¹³ CSquared, "CSquared Closes Transaction to Become Independent Broadband Infrastructure Company," news release, October 21, 2017, accessed November 22, 2017, <http://www.csquared.com/CSquaredClosesTransaction.pdf>.

Canadian Exporter Experience

Company Name: Enerkem
Location: Montréal, Quebec, and Edmonton, Alberta
Website: enerkem.com
Product: Waste-to-biofuels and renewable chemicals producer
Year Established / Started Exporting: 2000 / 2016
Employees: 200
Export Markets: North America, Europe, China

Description

Enerkem produces clean fuels and green chemicals from non-recyclable municipal waste.

Competitive Advantage

Enerkem has innovative technology that targets two big challenges faced by rapidly urbanizing cities: waste management and air pollution. The company has a modular and standardized manufacturing approach that enables it to launch and build new facilities internationally—more than 90 prefabricated modules. It has a full supply chain servicing them.

Dealing With the Challenges of Selling Infrastructure to Rapidly Urbanizing Cities

Cultural differences in emerging markets

Enerkem maintains a multicultural workforce to help navigate cultural differences and work with local consultants.

The large size of infrastructure projects

The demand for mega-scale projects in large countries like China can rule out small and medium-sized enterprises as players. To meet the requirements of mega-scale projects, Enerkem seeks out local partners, such as industrial groups in China.

Future Growth Plan

Enerkem has chosen Shanghai and Beijing in China as its first target markets outside of North America and Europe. The combined volume of waste in these two cities equals that of Canada as a whole. “We are in discussion with industrial groups in China to build production facilities for converting municipal solid waste to methanol and ethanol,” says **Marie-Hélène Labrie**, Senior Vice-President, Government Affairs and Communications, Enerkem. She anticipates rapid growth for the company as cities quickly expand and increasingly focus on diverting more waste from landfills and incineration, reducing air pollution, and transitioning to a circular economy in which waste is converted into products such as fuels and chemicals.

Export Tips

1. Be selective in choosing your markets. While demand is strong in Latin America, Asia, and Africa, Enerkem looks for a baseline level of waste collection infrastructure in addition to a strong industrial base.
2. Listen carefully. Listen to municipal leaders and decision-makers to understand their issues and take the time to educate them on solutions you have to offer.
3. Be culturally aware. “It’s almost like the UN here,” says Ms. Labrie in reference to Enerkem’s multicultural workforce, which provides a better understanding of different cultures and their specific needs.

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Insights. Understanding. Impact.



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