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**Sustainable Infrastructure**

Today's investors are applying environmental, social and governance (ESG) factors into their investment decision-making. They are integrating these factors into their public equity and fixed income portfolios. But with increased amounts of alternative assets in institutional investors' portfolios, fund managers are seeking ways to further integrate ESG into asset classes such as real estate and infrastructure. Sustainable infrastructure investment is key to long term risk reduction and potential life cycle savings over the course of these projects. On November 18th we will bring together a small group of institutional investors, government officials, and key industry representatives in a preliminary discussion on sustainable infrastructure practices and to discuss ways to integrate ESG into infrastructure investment decisions.

**THE PROBLEM**

Investors want to invest in infrastructure - especially in projects with a "social" and/or "environmental" impact, but:

- they lack a means of understanding the true risk involved;
- they lack a common set of metrics to value social and environmental benefits;
- they lack concrete examples of problems, solutions and financial alternatives;
- they lack a forum through which to come together with project sponsors, exchange; information and find investment opportunities that meet their needs.

**THE SOLUTION**

To facilitate large scale infrastructure investment an information platform capable of connecting capital with impact is required. We propose the **Canadian Impact Infrastructure Exchange (CIIX)**. The Canadian Impact Infrastructure Exchange (CIIX) is an information exchange that brings together investors (including Canada's largest pension plans) and infrastructure investment opportunities that feature positive social and environmental impacts for Canadian communities. We see infrastructure in its broadest context, encompassing large scale public systems, services, and facilities of a country or region that are necessary for economic activity and smaller scale opportunities that can be aggregated for investment. CIIX suggests that impact infrastructure investment is the intentional investment in private-public partnerships that provides positive economic, social and/or environmental impact, in addition to job creation, community resiliency and financial return. CIIX was identified as one of fifteen promising concepts in the Government of Canada HRSDC Report, *Harnessing the Power of Social Finance*.

CIIX is designed to help stimulate investment in impact infrastructure in order to overcome Canada's current infrastructure deficit (as documented by Federation of Canadian Municipalities). It does so by acting as a medium between private capital and Canada's infrastructure requirements bringing information to the market. It will feature infrastructure opportunities in Canada that provide both sound financial opportunities for investors and maximum positive environmental and social impacts for Canadian communities.

The CIIX improves the transparency of infrastructural requirements by including analysis of the environmental, social and governance (ESG) aspects of this investments. Improved transparency advances investor confidence, making them more likely to invest in these assets, in addition by lowering risk in these transactions it reduces their required returns, making it less costly for the municipalities when utilizing such private funding.

The CIIX will conduct the proper due diligence in assessing total benefits and costs which include externalities – such as the valuation of risks, social impact, employment impact, and environmental impact of the various infrastructure investments. The CIIX will provide a platform in which this information is shared. Investors then have the opportunity to select the most optimal investments using the information provided. The CIIX will review infrastructure assets in the various categories, including water management, telecommunications, waste management, energy transmission and distribution (wind, nuclear, solar, etc.), transportation (roads, (air) ports, etc.), public transit, health care, and other social and civil infrastructure<sup>i</sup>.

A key component of our ability to act as an information exchange with an ESG orientation lies in the expertise of our partner Impact Infrastructure LLC and their ESG Business Case Evaluator. Impact Infrastructure is working with a many municipalities across North America evaluating infrastructure opportunities using an ESG approach. They are currently working with municipalities in Arizona and Texas beta testing a storm water management system that deals with type of floods witnessed this year in Toronto and Calgary.

When evaluating the environmental results of infrastructure projects, Impact Infrastructure LLC. assigns a dollar value to various economic factors such as the environmental costs, benefits, and risks of infrastructure projects. In particular, carbon benefits of projects are quantified using a range of values for CO<sub>2</sub>. These values can be over-ridden with known values for carbon credits or ranges for expected prices from carbon finance schemes. In addition to these economic factors, they also value other possible benefits such as: the societal, business, low income, health, recreational, or flooding risk benefits of infrastructure. By taking into consideration all of the aforementioned factors, they are able to compare designs within projects and across different projects (allowing for prioritization). When assessing projects, geographically specific variables are taken into consideration in order to provide more relevant and accurate values. Such comparable metrics that include ESG considerations are vital in infrastructure investment.

Impact Infrastructure LLC's focus to date has been on the U.S. However, their methodology was developed by Canadian economists in Canada and has a track record of over \$10 billion of infrastructure deals to date. Specific to Canadian municipalities, this methodology has been used in evaluating burying power lines in Ottawa, several transit studies (Victoria, Winnipeg, and London) and the value of the \$50 billion transportation plan in Toronto – with findings of \$6 billion per year cost of congestion in this study.

The CIIX will seek impact investors, primarily large pension funds whose investment needs are met with infrastructure assets, matching these assets against long term pension fund liabilities.

Canada's pension funds currently have assets of over \$1.2 trillion. Most of these assets are held by the eight largest pension funds in Canada. These eight funds are also signatories to the UN Principles for Responsible Investing (UN PRI), requiring them to take environmental, social and governance factors into consideration in their investment portfolio.

The largest Canadian pension funds are also global leaders in infrastructure investment and have built great expertise in the field. However to date they have not brought an ESG lens to their infrastructure investments. In addition, they have often been reluctant to invest in private public infrastructure deals in Canada. CIIX will address the information needs required to build a more robust infrastructure investment market in Canada. Dr. Tessa Hebb of Carleton University will draw on her internationally recognized expertise in responsible investing to engage Canadian PRI signatories in the CIIX. She currently chairs the Steering Committee of the UN PRI Academic Network and her work in this area is well known in the field.

We draw on a US model in this exploration, the West Coast Infrastructure Exchange (WCX). The WCX provides a model for the proposed CIIX. Launched in November of 2012, this Exchange has been established to address West Coast infrastructure needs within an ESG framework. It includes the British Columbian government. We are undertaking a detailed case study of the West Coast Exchange to explore lessons learned and best practice in these ESG infrastructure exchanges. The West Coast Exchange has now been in existence for two years. It developed through a series of steps very similar to those we propose here. It is based on a formal agreement between the State Governments of Oregon (host organization), Washington, California and the Province of British Columbia. We see the WCX as a potential partner of the CIIX in standards development.

We plan to have them present WCX in greater detail at our first convening on sustainable infrastructure in Nov. of 2014, and will have a detailed case study of WCX as one of the key convening documents.

**On November 18 2014, CIIX will bring Canadian pension funds and other large Canadian institutional investors who have declared themselves responsible investors (i.e. investors who take environmental, social and governance factors into consideration in investment decision-making) together with other key stakeholders in infrastructure investment in Canada for a small single day symposium to discuss the opportunities for sustainable infrastructure investment in Canada.** We will assess the need for a platform such as the proposed CIIX and the services it could provide to this market. We will provide a framework for CIIX and develop an action plan that will lead to the establishment of CIIX with these key investors as active participants. We will provide a white paper on the potential for impact infrastructure in Canada generally and the role CIIX could play in bringing ESG considerations into infrastructure investment decision-making.

## **CIIX COLLABORATIVE PARTNERS**

**The Carleton Centre for Community Innovation (3ci)** provides the program management and home base for the CIIX. It is deeply committed to extending impact investing to large institutional investors in Canada, particularly those declared as responsible investors who integrate social, environmental and governance factors into their investment decision-making. 3ci Director, Dr. Tessa Hebb, is one of the world's leading experts on responsible investing and impact investing. She will draw on her extensive background in both fields to bring together key institutional investors, government agencies, community leaders, and impact investing specialist

in Canada to launch the CIIX. 3ci will act as a convener of the key players required to establish the CIIX in Canada and drive this process forward. 3ci has a strong expertise in responsible investing and impact investing.

**Impact Infrastructure LLC** and its CEO John Williams (a key player in the Clinton Global Initiative), provide expertise in the development of impact infrastructure exchanges that integrate ESG in infrastructure deals. Impact Infrastructure LLC is the driving force behind the Business Case Evaluator, a tool designed to "assess risk; value social, environmental and economic costs and benefits; and balance risk/reward returns from structured deals (Impact Infrastructure LLC, 2012) " The Business Case Evaluator (TM) will be fully integrated into the CIIX and will ensure that such an exchange delivers real, tangible and measurable results for investors, government and communities. Impact Infrastructure LLC has a deep understanding of sustainable infrastructure and ESG integration through a the infrastructure investment life cycle.

**Purpose Capital** brings a wealth of expertise on impact investing from Canada and internationally. Co-Founder and Director, Karim Harji, works with foundations, financial institutions and government organizations to understand the key trends, issues, and opportunities around impact investing. He is the co-author of comprehensive market reports on impact investing, including 'Accelerating Impact: Achievements, Challenges and What's Next in Building the Impact Investing Industry' (2012) and 'Impact Investing in Canada: State of the Nation' (2014). As an advisory and intermediary firm, Purpose Capital brings its expertise in community-level deal flow and aggregation of smaller impact investing deals to CIIX.

**The International Institute for Sustainable Development** is a Canadian-based, international public policy research institute for sustainable development. IISD focus on topics that are ripe for transformation—where a shift in policy has the potential to snowball and, before too long, to change the nature of the game. It is only through a focus on game-changers that we will make up the sustainability deficit that has accumulated and move towards a better future. Oshani Perera and Mariana Hug Silva are key experts at IISD on infrastructure and the development of financial products. IISD recently published "Overcoming Barriers to Scale: Institutional Impact Investments in Low-Income and Developing Countries" that focuses on infrastructure investment. IISD brings its expertise in structured finance and the infrastructure asset class to CIIX.

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