Infrastructure Banks: Solutions and best practices

IISD DISCUSSION PAPER

IISD
International Institute for Sustainable Development

David Uzsoki

January 2018

International Institute for Sustainable Development

The International Institute for Sustainable Development (IISD) is one of the world's leading centres of research and innovation. The Institute provides practical solutions to the growing challenges and opportunities of integrating environmental and social priorities with economic development. We report on international negotiations and share knowledge gained through collaborative projects, resulting in more rigorous research, stronger global networks, and better engagement among researchers, citizens, businesses and policy-makers.

IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the International Development Research Centre (IDRC) and from the Province of Manitoba. The Institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations, the private sector and individuals.

Head Office

111 Lombard Avenue, Suite 325
Winnipeg, Manitoba
Canada R3B 0T4

Tel: +1 (204) 958-7700
Website: www.iisd.org
Twitter: @IISD_news

Infrastructure Banks: Solutions and Best Practices

Written by David Uzsoki

January 2018

Table of Contents

Introduction

Infrastructure can deliver a wide range of economic and social benefits to governments and their taxpayers. These benefits include inclusive and sustainable economic growth, increased job opportunities, and better quality of life through access to basic services such as health care, education and electricity. In addition, tax revenues generated by increased economic activity can even partially offset the high upfront costs of infrastructure projects.

In light of these significant economic and social multipliers, ambitious goals for infrastructure development have become an important component of economic planning in many countries. This attention is welcome, as according to estimates, about USD 90 trillion needs to be spent on infrastructure globally by 2030 (The Global Commission on the Economy and Climate, 2016). Current levels of investment cover about half of the USD 6 trillion in spending needed annually. Covering this infrastructure deficit is beyond the budget of most governments.

To overcome this financing gap, countries need to explore innovative financial solutions to leverage government resources to attract private capital. Some of the instruments and schemes used by multilateral development banks (MDBs) are good examples of what countries can also implement themselves. However, policy-makers often face the challenge of identifying domestic institutions that have the necessary financial capacity and credit standing to offer these instruments. The success of these entities relies on low-cost financing, sourced either from their governments or directly from capital markets.

Infrastructure banks can meet this need. They can be set up with a specific mandate to support the deployment of economically and socially important projects and promote sustainable design and operation of these assets. They can offer a wide range of financial instruments to mobilize private capital worth several times their own funds and even provide project preparation assistance. The unconditional backing of their respective governments enables infrastructure banks to have a high credit rating, allowing them to borrow cheaply from both domestic and international capital markets. While infrastructure banks have a social mandate, they should invest only in projects that are financially viable, and therefore deliver value for money for taxpayers, and at the same time satisfy stringent environmental standards.

Infrastructure banks in different shapes and forms have been implemented globally, some with more success than others. The purpose of this paper is to share some of the most notable examples globally and provide a set of key recommendations for countries exploring similar models to support their infrastructure pipelines.

Best Practices

A wide range of structures have been used globally to provide financial assistance to deploy infrastructure projects. These include national development banks, infrastructure funds and even sovereign wealth funds. For example, it was recently announced in Turkey that the national sovereign wealth fund has been mandated to support infrastructure and construction projects in the country (Project Finance International, 2017). Considering this, while many of the examples discussed in this section are not national infrastructure banks, the solutions and products they offer are still very relevant for infrastructure banks to consider including in their own product offering. The European Investment Bank (EIB) is arguably the best example of the products and services that an infrastructure bank could offer to stimulate infrastructure investments, and therefore it is discussed in more detail.

European Investment Bank (EIB)

- Founded in 1958 and owned by the European Union.
- Funds its lending activities mainly by issuing bonds on capital markets.

    - Supports sustainable investment projects mostly in Europe; projects must be bankable and also meet strict social and environmental standards.
- Usually finances one-third of a project, and its long-term financing attracts other investors .
- Philosophy and mandate:
    - Support projects that contribute to growth, employment, regional cohesion and environmental sustainability.
    - Support the following sectors: food and rural development, agriculture, education and training, digital economy, forestry, energy, health and life science, regional development, transport, urban agenda, and water and wastewater management (EIB, n.d.-c).

Products and Services

EIB's services fall into three main categories.

- **Lending:** This is the EIB's main activity. It includes project loans, intermediated loans, framework loans, and equity and fund investments.
- **Blending:** The EIB uses blending to access financing from other sources using guarantees, project bonds, structure finance, trust funds and other strategies to de-risk infrastructure projects.
- **Advising:** The EIB also provides administration and project management services (EIB, n.d.-e).

The following are some of the more notable and innovative products offered in each category.

Lending: EIB's Framework Loans

Framework loans are used to finance several—sometimes hundreds—of projects within a single investment program. The individual projects are usually valued at between EUR 1 million and EUR 50 million and last three to five years.

An investment program funded by a framework loan is usually over EUR 100 million. The EIB framework loan provides up to 50 per cent of the funding, meaning a city or region will receive an investment of at least EUR 20 million every year for five years. The borrower of a framework loan is usually a city or a region. If the city or region takes responsibility for repaying the EIB loan, it can on-lend the money to private companies that will then carry out the projects (EIB & EU Committee of the Regions, 2016).

Blending: EIB's Loan Guarantee Instrument for Trans-European Transport Network Projects

The Loan Guarantee Instrument for Trans-European Transport Network Projects (LGTT) covers projects that meet two criteria. First, the project must contribute to the development and strengthening of the Trans-European Transport Network. Second, the project must make money from user fees.

Under the LGTT, a borrower is guaranteed a maximum of 10 per cent senior debt, up to EUR 200 million per project. Any debt due under the LGTT is junior to other debt, and this support is available for up to seven years after a project is complete. Together, the EIB and European Commission have contributed EUR 1 billion in capital, which could support up to EUR 20 billion of senior loans (EIB, n.d.-d).

Advising: European Local Energy Assistance (ELENA)

The European Local Energy Assistance (ELENA) program provides grants that fund up to 90 per cent of a project's development and technical assistance costs, for projects in the areas of energy efficiency, distributed renewable energy and urban transport. ELENA usually funds projects over EUR 30 million over two to four years. These grants can pay for feasibility and market studies, program structuring, business plans, energy audits, financial structuring, bid proposals, contracts and project implementation (EIB, n.d.-b).

Recent Project Examples

- **EUR 655 million framework loan** to nine cities in Poland to support urban development and infrastructure modernization, including investments aiming to link and integrate the cities (EIB, n.d.-f).
- **EUR 234 million loan** for the construction of the London Gateway Port, a new deep-water container port on northern bank of River Thames. The loan was complemented by the LGTT financial instrument (EIB, n.d.-f).
- **EUR 1.93 million** ELENA contribution to the European Energy Efficiency Fund for providing technical assistance with feasibility studies and preparation of tendering documents (EIB, n.d.-a).

European Bank for Reconstruction and Development (EBRD)

- Founded in 1991 and owned by 65 countries from five continents, the European Union and the European Investment Bank.
- Funds only commercially viable projects with sponsors.
- Philosophy and mandate: protect the environment and support sustainable energy.

Products and Services

- **Loans:** EUR 5–250 million for larger projects. The credit risk can be taken entirely by the bank or may be partly syndicated to the market. A loan may be secured by a borrower's assets and/or it may be converted into shares or be equity-linked.
- **Equity investments:** EUR 2–100 million. The EBRD expects market return on investment and will take only minority positions. (EBRD, n.d.-c).

Recent Project Examples

- **EUR 24 million loan** to the city of Constanta, Romania, to purchase up to 120 new EURO 6 standard–compliant buses. These buses will improve public transit in the city and reduce pollution (EBRD, n.d.-a).
- **EUR 10 million loan** to the city of Chisinau, Moldova, for its Green City Framework project. The project aims to improve energy efficiency in city-owned buildings and to show that projects completed through energy performance contracts can be commercially viable (EBRD, n.d.-b).

Infrastructure Development Fund Netherlands

- Established in 2002 by the Dutch government and the FMO (the Dutch development bank).
- Supports projects related to energy, transport, ports, agribusiness, water, environment and social infrastructure.
- Philosophy and mandate:
    - Support companies that work with people who live at the base of the pyramid.
    - Fund climate change mitigation projects FMO (n.d.-a).

Products and Services

- **Loans:** EUR 10 million, including in local currency, medium- or long-term loans with fixed or variable interest rates
- **Minority equity investments:** Co-investing alongside other core investors.
- **Investments in infrastructure investment funds:** Investments in third-party funds, advocating sustainability integration in their core operations.
- **Early-stage equity for new projects:** Providing long-term risk capital

Recent Project Examples

- **USD 15 million loan** to replace diesel buses with natural gas–powered buses in Cartagena, Colombia. This green project will allow the city to move toward a sustainable and efficient public transit system (FMO, n.d.-c).
- **USD 7.5 million senior loan** to create a plantation in a concession bordering the Nyungwe National Park in Rwanda. The plantation aims to protect the park and reduce greenhouse gas emissions, while also creating jobs and improving rural access to energy (FMO, n.d.-b).

U.K. Treasury Infrastructure Finance Unit (TIFU)

- Established by the UK Government in 2009 and funded by the UK Treasury.
- Was the UK Treasury's response to global financial crisis that resulted in credit crunch for infrastructure projects.
- Does not fund many projects, but increases confidence in the market, which in turn increases private finance.
- Conditions under which TIFU might provide funding:
    - Projects that cannot secure funds from other sources in time.
    - Projects at risk of delay because of lack of funding.
    - Projects in which the proposed private sector funding is not representative of terms and conditions generally available in the market
- Philosophy and mandate:
    - Lend to private finance initiative projects that could not raise sufficient debt finance on acceptable terms.
    - Will dissolve once the financial market returns to normalcy and commercial lenders start providing infrastructure finance (Farquharson and Encinas, 2010).

Products and Services

- **Lending:** The bank works much like any other commercial bank offering long-term loans on either a fixed rate or a floating rate basis. TIFU can fund up to 100 per cent of a project, but prefers private sector to fund most or all of it, and expects equity investors to bear primary risk. It can also participate in or provide standard ancillary lending facilities for PFI projects (Farquharson and Encinas, 2010).

Recent Project Examples

- **GBP 182 million loan** for the Greater Manchester Waste Disposal Authority project alongside the EIB and other commercial banks. Total project size is GBP 795 million (EIB, 2009).

UK's Green Investment Bank (GIB)

- Established in 2012 using public funds, but recently sold to a Macquarie-led consortium.
- Invests in projects that contribute to the environmental objectives of the government.
- Invests only in projects that can repay their initial financing through market rate user fees; does not offer subsidized low-cost financing or grants. (Bentley, 2017).
- Works in sectors including offshore winds, energy efficiency, waste and bioenergy and onshore renewable projects.
- Philosophy and mandate: Invest in green infrastructure projects, including established and new technology projects (Green Investment Group, n.d.-c).

Products and Services

- **Equity investment:** Directly through wholly-owned subsidiaries or through funds.
- **Debt finance:** Directly or through wholly-owned subsidiaries (Green Investment Group, n.d.-c).

Recent Project Examples

- **GPB 47 million senior loan** to partially fund the Full Circle Generation waste management facility in Northern Ireland. The GBP 107 million facility will use local waste and gasification technology to produce heat and electricity for the nearby Bombardier manufacturing plant. This is one of nine green infrastructure projects backed by GIB in Northern Ireland (Green Investment Group, n.d.-b).
- **Partnership loan** to fund Galloper Windfarm in the United Kingdom. The total project cost is GBP 1.5 billion, and will use innovative technologies, including the largest and most advanced turbines currently available for commercial use (Green Investment Group, n.d.-a).

Municipality Finance Plc Finland (MuniFin)

- Owned by municipalities, the public sector of Finland, the government of Finland and a local public sector pension fund, established in 2010.
- Specializes in financing the local government sector and state-subsidized social housing production.
- Lends only to municipalities, municipality-owned companies and non-profit housing companies.
- Funding comes from international capital markets.
- Finances municipal projects related to basic infrastructure, healthcare, education and the environment.
- Philosophy and mandate:
    - Provide financing to Finland's public sector.
    - Support socially responsible projects such as hospitals and daycare centres (MuniFin, 2015).

Products and Services

- **Loans:** Short- and long-term loans, subsidy loans, non-subsidized mortgages.
- **Leasing:** Capital and real estate leasing (MuniFin, 2015).

Recent Project Example

- **Lease financing** of the T3 Hospital of the Hospital District of Southwest Finland. This EUR 158 million project involves moving the operations from the current hospital building to a new facility. The building is owned by MuniFin, but once the lease period is up, the hospital can either sell the building or buy it. This model reduces the project's refinancing risk (MuniFin, 2015).

Nordic Investment Bank (NIB)

- Founded in 1976 and owned by Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden.
- Funds projects within and outside of the Nordic-Baltic region.
- Borrows on international capital markets to raise its funds.
- Does not provide grants.
- Philosophy and mandate: Fund projects that increase a country's competitiveness and improve its environment (NIB, n.d.-a).

Products and Services

- **Corporate loans:** NIB's main lending activity.
- **Project and structured finance:** NIB often leads infrastructure projects, and partners with other international banks and lenders in the public or private sectors.
- **Sovereign loans:** Granted either against a sovereign guarantee or as a direct loan to a government.
- **Loans to municipalities:** Granted either against a municipal guarantee or as a direct loan to a municipal entity (NIB, n.d.-a).

Recent Project Examples

- **EUR 49.8 million loan** to build six hydropower plants in Norway. The project will improve the security of the country's energy supply, create new generation capacity and support an environmentally efficient means of energy production (NIB, n.d.-c).
- **EUR 60 million loan** to purchase 40 energy-efficient trams in Helsinki. Aside from saving on energy, the new trams are better equipped to handle the city's difficult climate and can carry 50 per cent more people than the old trams (NIB, n.d.-b).

Recommendations

Based on our analysis of global best practices and experience gained through our advisory services in this area, the International Institute for Sustainable Development (IISD) has compiled the following recommendations for countries considering setting up their own infrastructure banks.

1. Finance only financially viable projects, but not solely those that are revenue generating

The number of infrastructure banks and funds set up globally demonstrates that governments have recognized the potential of these entities in facilitating the financing of infrastructure projects. While the mandate and priority sectors may differ across the best practice examples discussed earlier, all of them finance only financially viable projects. The long-term financial sustainability of these schemes relies on recuperating their capital while generating some return (depending on their mandate). For some asset types, the revenue-generating capacity is more inherent than for others (e.g., a toll road is meant to make money, while a rural road is not). However, assets without the ability to charge user fees can still be bankable, relying instead on some form of availability-based payment. Indeed, financial sustainability across the whole life cycle of the asset is an essential component for delivering value for money for all stakeholders.

2. Avoid crowding out private capital, and prioritize additionality

Infrastructure banks should exercise caution when making direct investments in projects, in order to not crowd out private sector investors. *Additionality* should be one of the main lending principles. In other words, infrastructure banks should make investments only where they can provide added value by investing in projects that otherwise would not attract financing on similar terms. Limiting the financing to revenue-generating assets (as discussed above) could potentially have a negative effect on additionality, as these projects are often the most attractive for private capital. Also, for projects with high economic and social impact, infrastructure banks should have a bigger risk appetite than traditional lenders. This should also be reflected in the cost of financing they provide to projects.

3. Tap capital markets for additional funds

Infrastructure banks are also encouraged to tap capital markets for financing their operations as opposed to relying solely on government sources. Raising financing from private sources allows the bank to increase the size and frequency of loans, while at the same time a bigger "war chest" allows it to commit capital for longer-term horizons. In addition, this would also underline the need for "financially viable projects only" as discussed earlier.

4. Include sustainability as a criteria for project selection and apply stringent environmental standards

Infrastructure banks should also leverage their size and influence on the development of pipelines and

project specifications to make environmental and social performance an important criteria for their support. Demanding sustainability would not only improve the environmental footprint of projects that can be operational for up to 40 years, but would also encourage green innovation and a green economic transformation in their respective countries.

5. Finance projects with high social and economic multipliers

While infrastructure banks can play a large role in addressing a country's infrastructure deficit, they should consider carefully what projects to support, as their "firepower" is still limited. Project selection should be a robust, thorough process and should prioritize projects with high social and economic multipliers. In other words, projects that have the largest socioeconomic impacts and contribute to key policy objectives of the government should get priority. While this might already be the goal in many countries, based on IISD's experience, governments often struggle to measure these multipliers and therefore make suboptimal decisions during project selection. IISD has developed the Sustainable Asset Valuation tool to quantify these impacts and give governments the information they need to prioritize the right projects.

6. Leverage the bank's limited resources by providing risk capital or credit enhancement

Infrastructure banks should be selective not only with what project to finance, but also with the financing instrument they use. In recent years, discussions of the size of investment needed in infrastructure have shifted from billions to trillions. This also requires a shift in how capital is deployed. As opposed to financing projects outright, banks should explore innovative financial instruments to most efficiently leverage their limited resources. These solutions should be based on the principle of how infrastructure banks can use their capital to de-risk transactions to attract other sources of financing. These instruments could include credit enhancement (partial credit guarantees), risk capital (equity or subordinated debt tranche) and viability gap funding (grants), among others.

7. Provide project preparation and technical assistance

Insufficient project preparation is one of the main causes of the lack of bankable infrastructure projects in many countries. Especially in the case of public-private partnerships and other blended structures, the capacities required from procurers are significantly different than the ones for more conventional public-only arrangements. Infrastructure banks should play a role in filling this capacity gap and provide project preparation and technical assistance from the planning phase up to the financial close. This would not only enable infrastructure banks to have a pipeline of bankable deals, but would also open the door to private investors, who would be more willing to engage capital in well-structured, technically and financially viable projects.

8. Finance projects at all levels of government (national and local)

Infrastructure banks should support both local and national infrastructure. Projects at the municipal level often have high social impact and fulfil an essential role in the development and functioning of communities. At the same time, the financial structuring of these projects can be more difficult, as often these assets are not revenue generating and have to rely on the already stretched resources of municipalities. The small scale of these projects can be another obstacle that needs to be addressed. Following some of the best practices discussed earlier, infrastructure banks could channel funds to programs or schemes as opposed to individual projects. This would decrease transactions costs while deploying a large number of essential infrastructure projects. Providing assistance at the local level can be another way to ensure additionality.

Conclusion

Infrastructure banks can play a key role in addressing the infrastructure deficit in both developed and emerging countries. However, in the past they have been criticized for financing projects that would be easily financed by the private sector, such as large toll road projects with strong revenue streams and sovereign guarantees in place. Banks may find it difficult in some cases to both earn a return on their capital and ensure additionality of their investments. This underlines the importance of a robust project selection process and the need to offer project preparation assistance. The aim is not necessarily to identify projects that are already bankable, but to recognize when a project could become bankable with assistance provided by the infrastructure bank.

Low cost of capital is an essential ingredient for infrastructure banks to achieve their mandate. It is therefore important that they have the explicit backing of the government and hence a similar credit rating. This allows infrastructure banks to charge a concessional rate on their financing when justified (while still generating a return on investment), and therefore improve the bankability of the project and potentially attract other sources of capital.

Finally, it is important to emphasize that infrastructure banks should become champions of sustainable infrastructure. Making sustainability a requirement for assistance could have a wider ripple effect on the green economy, incentivizing green innovation and demonstrating the viability of sustainable solutions for different infrastructure asset types for other players in the infrastructure financing space. Considering that 60 per cent of carbon dioxide emissions come from infrastructure, countries need to channel large amount of funds to sustainable infrastructure to have a reasonable chance to meet their emission commitments made under the UNFCCC Paris Agreement. Infrastructure banks could play a key role in making this happen.

References

Bentley, Z. (2017, June 6). "Inside GIB: The rise and sale of the world's first green bank." *Infrastructure Investor*. Retrieved from https://www.infrastructureinvestor.com/inside-gib-the-rise-and-sale-of-the-worlds-first-green-bank/

EBRD (n.d.-a). *Constanta urban transport*. Retrieved from http://www.ebrd.com/work-with-us/projects/psd/constanta-urban-transport.html

EBRD (n.d.-b). *Green City Framework: Chisinau buildings*. Retrieved from http://www.ebrd.com/work-with-us/projects/psd/green-city-framework-chisinau-buildings.html

EBRD (n.d.-c). *Products and services*. Retrieved from http://www.ebrd.com/what-we-do/products-and-services.html

European Investment Bank (EIB) & EU Committee of the Regions. (2016). *Financing a city's or region's long-term capital investment programme: EIB framework loans*. Retrieved from http://www.eib.org/attachments/documents/mooc_factsheet_eib_framework_loans_en.pdf

European Investment Bank (EIB). (n.d.-a). *ELENA project factsheet*. Retrieved from http://www.eib.org/attachments/documents/eeef_project_factsheet_en.pdf

European Investment Bank (EIB). (n.d.-b). *ELENA – Supporting investments in energy efficiency and sustainable transport*. Retrieved from http://www.eib.org/products/advising/elena/index.htm

European Investment Bank (EIB). (n.d.-c). *The EU bank*. Retrieved from http://www.eib.org/about/index.htm

European Investment Bank (EIB). (n.d.-d). *Guarantees for transport infrastructure cash-flow (LGTT)*. Retrieved from http://www.eib.org/products/blending/lgtt/index.htm

European Investment Bank (EIB). (n.d.-e). *Products and services*. Retrieved from http://www.ebrd.com/what-we-do/products-and-services.html

European Investment Bank (EIB). (n.d.-f). *Projects financed*. Retrieved from http://www.eib.org/projects/loan/list/index.htm

European Investment Bank (EIB). (2009). *Greater Manchester Waste PPP Project achieves financial close with help of GBP 182m EIB loan*. Retrieved from http://www.eib.org/infocentre/press/releases/all/2009/2009-060-greater-manchester-waste-ppp-project-achieves-finanicla-close-with-help-of-gbp-182m-eib-loan.htm

Farquharson, E., & Encinas, J. (2010). *The U.K. Treasury Infrastructure Finance Unit: Supporting PPP financing during the global liquidity crisis*. Retrieved from http://documents.worldbank.org/curated/en/759401467998826171/pdf/80755-PPP-Solution-Notes-UK-Treasury-Box-377336B-PUBLIC.pdf

FMO (n.d.-a). *Infrastructure Development Fund*. Retrieved from https://www.fmo.nl/infrastructure-development-fund

FMO (n.d.-b). *New Forests (Rwanda) Ltd*. Retrieved from https://www.fmo.nl/project-detail/49755

FMO (n.d.-c). *Transambiental S.A.S*. Retrieved from https://www.fmo.nl/project-detail/48656

The Global Commission on the Economy and Climate. (2016). *The sustainable infrastructure imperative: Financing for better growth and development*. Retrieved from http://newclimateeconomy.report/2016/wp-content/uploads/sites/4/2016/08/NCE_2016_Exec_summary.pdf

Green Investment Group. (n.d.-a). *Galloper Offshore Wind Farm*. Retrieved from http://greeninvestmentgroup.com/our-investments/all-case-studies/all-case-studies-list/galloper-offshore-wind-farm/

Green Investment Group. (n.d.-b). *Helping to build a greener North Ireland*. Retrieved from http://greeninvestmentgroup.com/our-investments/all-case-studies/all-case-studies-list/helping-to-build-a-greener-northern-ireland/

Green Investment Group (n.d.-c). *Home*. Retrieved from http://greeninvestmentgroup.com/

Municipality Finance Plc Finland (MuniFin). (2015). *Building a responsible tomorrow: Annual report 2015*. Retrieved from https://www.munifin.fi/sites/default/files/press_release/field_file/734475.pdf

Nordic Investment Bank (NIB). (n.d.-a). *About NIB*. Retrieved from https://www.nib.int/about_nib

Nordic Investment Bank (NIB). (n.d.-b). *Finland. Helsinki City Transport HKL*. Retrieved from https://www.nib.int/loans/agreed_loans

Nordic Investment Bank (NIB). (n.d.-c). *Norway. Helgeland Kraft AS*. Retrieved from https://www.nib.int/loans/agreed_loans

Project Finance International (PFI). (2017). *Turkish wealth fund for infra*. Retrieved from http://www.pfie.com/turkish-wealth-fund-for-infra/21281616.article

Published by the International Institute for Sustainable Development.

Head Office

111 Lombard Avenue, Suite 325
Winnipeg, Manitoba
Canada R3B 0T4

Tel: +1 (204) 958-7700
Website: www.iisd.org
Twitter: @IISD_news

IISD

IISD.ORG