

BUILDING INFRASTRUCTURE FOR 21ST CENTURY SUSTAINABLE DEVELOPMENT: LESSONS AND OPPORTUNITIES FOR THE BRICS-LED NEW DEVELOPMENT BANK

Karin Costa Vazquez, Supriya Roychoudhury and Caio Borges



O.P. Jindal Global University
A Private University Promoting Public Service
NAAC Accreditation - 'A' Grade



Jindal School of International Affairs
India's First Global Policy School

CALACS!
Center for African, Latin American and Caribbean Studies
at O.P. Jindal Global University

CONECTAS
HUMAN RIGHTS



BUILDING INFRASTRUCTURE FOR 21ST CENTURY SUSTAINABLE DEVELOPMENT: LESSONS AND OPPORTUNITIES FOR THE BRICS-LED NEW DEVELOPMENT BANK

Karin Costa Vazquez, Supriya Roychoudhury and Caio Borges



O.P. Jindal Global University
A Private University Promoting Public Service
NAAC Accreditation - 'A' Grade



Jindal School of International Affairs
India's First Global Policy School

CALACS!
Center for African, Latin American and Caribbean Studies
at O.P. Jindal Global University

CONECTAS
HUMAN RIGHTS



Produced by:
Jindal School of International Affairs
Center for African, Latin American and Caribbean Studies at O.P. Jindal Global University
Delhi NCR, India

Conectas Human Rights – Brazil
São Paulo, Brazil

2nd edition: November, 2017

Written by:
Karin Costa Vazquez, Jindal School of International Affairs
Center for African, Latin American and Caribbean Studies, India
Supriya Roychoudhury - Center for African, Latin American and Caribbean Studies, India
Caio Borges – Conectas Human Rights, Brazil

Edition by:
Amika Bawa

Layout by:
Manoj G.D.
Anil Khumar

Contacts:
Center for African, Latin American and Caribbean Studies
calacs@jgu.edu.in
www.jgu.edu.in/researchcentre/Centre-For-African-Latin-American-and-Caribbean-Studies

Conectas Human Rights – Brazil
conectas@conectas.org
www.conectas.org

The publication of this case study was made possible thanks to the support Jindal School of International Affairs at O.P. Jindal Global University, Conectas Human Rights – Brazil and the Center for BRICS Studies at Fudan University.

TABLE OF CONTENTS

| | |
|--|-----------|
| Acknowledgements | 1 |
| List of Abbreviations | 3 |
| Executive Summary | 4 |
| 1. Background | 8 |
| Objectives | 9 |
| Methodology | 11 |
| 2. The BRICS and the big push for infrastructure in the global development agenda | 12 |
| Addressing infrastructure needs | 13 |
| Traditional MDBs: challenges and limitations | 13 |
| An emerging consensus | 15 |
| The New Development Bank | 15 |
| Relationships | 16 |
| Projects and instruments | 17 |
| Approaches | 18 |
| 3. What can the NDB learn from other organizations? | 19 |
| Lessons from multilateral development banks | 19 |
| Lessons from national development banks and private commercial bank | 24 |
| Lessons from research institutions and other organizations | 30 |
| 4. Emerging opportunities for the NDB | 36 |
| Sustainable infrastructure: purpose and rationale | 36 |
| The economic/financial argument | 36 |
| The operational argument | 37 |
| The strategic argument | 37 |
| Defining 'sustainable infrastructure' | 38 |
| Fundamental principles for a NDB sustainable infrastructure assessment framework | 40 |
| Pragmatism, but not conformism | 43 |
| Incentivize, rather than regulate | 43 |
| Inclusiveness and bottom-up approach | 43 |
| Gender responsiveness | 44 |
| Strengthen country systems | 45 |
| A model for assessing the sustainability of NDB's infrastructure projects | 46 |
| 5. Operationalizing sustainable infrastructure assessment in the NDB | 48 |
| Develop sustainability criteria and a sliding scale of sustainability | 48 |
| Create multi-stakeholder task forces and reference group | 49 |
| Define incentives for sustainable infrastructure projects | 51 |
| Mainstream sustainability assessment and incentive system in operations | 52 |
| Promote convergence and serve as a “South hub” of good practices | 53 |
| 6. Building infrastructure for 21st century sustainable development | 55 |
| Endnotes | 57 |
| References | 64 |
| Annex I – Projects approved by the NDB as of September 2017 | 69 |
| Annex II – Research questions | 70 |

Acknowledgements

Realizing the need to go beyond traditional government-to-government cooperation and acknowledging diversity within BRICS, this report is the result of the BRICS Sustainability Index project, an innovative collaboration between academia and non-governmental organizations in the BRICS countries. As such, this report initiates a “track 2.5 diplomacy” to lay down a development financing framework, rooted in sustainable and gender-responsive practices, and contribute to enhanced civil society-NDB interaction for the implementation of the Bank's five-year strategy.

The authors of this report, Karin Costa Vazquez,¹ Supriya Roychoudhury² and Caio Borges,³ acknowledge the following individuals for their support since the concept stage of the project: C. Raj Kumar and Y.S.R. Murthy (OP Jindal Global University), Sreeram Chaulia (OP Jindal School of International Affairs) and Juana Kweitel (Conectas Human Rights). The authors are deeply grateful to Amika Bawa, Rushil Anand and João Calfat for their invaluable research assistance and overall support to the BRICS Sustainability Index project.

We are thankful to Shen Yi, Yang Yang and Xiaochen Hou (Center for BRICS Studies at Fudan University) for receiving Prof. Karin Costa Vazquez as a Visiting Scholar at Fudan University during the month of July 2017 to conduct research and interviews for this report. We are most grateful to Paulo Nogueira Batista Jr. for his interest in the project as well as to Sérgio Suchodolski, Daniel Couto and Anna Kurguzova (New Development Bank) for sharing their valuable perspectives on the research concept and sustainable infrastructure.

We are deeply grateful to the many representatives of national development banks, private commercial banks, private foundations, academia, think-tanks, non-government organizations, people's and feminist movements for the interviews they provided. In this connection, we thank Annelise Vendramini (Getúlio Vargas Foundation, Brazil) for her contribution to the model for assessing sustainable infrastructure, Luis Otávio Reiff, Andréa Campos Gomes Fernandes and Luisa Fialho (BNDES, Brazil), Rogério Studart (Brookings Institution, United States), Zhu Jiejun, Zheng Yu, Su Changhe and Chen Zhimin (Fudan University), Quan Heng (Shanghai Academy of Social Sciences, China), Zhang Haibing and Ye Yu (Shanghai Institute of International Studies, China), Yunwen Bai and Anqi Yao (Greenovation Hub, China), Hannah Ryder (Development Reimagined, China), Jayashree Sengupta (Observer Research Foundation, India), Christopher Wells (Santander, Brazil), Oliver Stuenkel and Michelle Ratton (Getúlio Vargas Foundation, Brazil), Julia Fernandes (Movimento dos Atingidos por Barragens, Brazil), Paulo Esteves, Sérgio Veloso dos Santos Júnior and Maria Elena Rodriguez (BRICS Policy Center, Brazil), Bernardo Serra and Clarisse Linke (Institute for Transportation and Development Policy, Brazil), Guilherme Teixeira and Silvia Chicarino (SITAWI, Brazil), Maiara Folly (Igarapé Institute, Brazil), Laura Waisbich (Asul), Mihaela Papa (Massachusetts Institute of Technology, United States), Paulina Garzón (China-LAC Sustainable Development Initiative, United States). We are also grateful to Eduardo Viola (University of Brasília, Brazil), Cyril Prinsloo (South Africa Institute for International Affairs, South Africa), and Radha Paudel (Radha Paudel Foundation, India) for their online contribution to the project.

We extend our sincere gratitude to the BRICS Feminist Watch and the participants of the workshop “What Future for Development Cooperation: Building Innovative and Inclusive South-South Institutions” (Delhi, August 22-23, 2017), organized as an integral part of this research project: Amit Lahiri (OP Jindal Global University), Anthea Mulakala (Asia Foundation), Neissan Besharati (South African Institute for International Affairs, SAIIA/Institute for Global Dialogue, South Africa), Faith

Mabera (Institute for Global Dialogue, South Africa), Priti Darooka (Program on Women's Economic, Social and Cultural Rights, India), Dr. Govind Kelkar (Landesa Rural Development Institute, India), Rebecca Perkins (Women and the New Development Bank, Russia), Divita Shandaliya (Action Aid, India), Dr. Axel Harneit-Sievers and Shalini Yog (Heinrich-Böll Foundation, India), Anirudha Nagar (Accountability Counsel, India), Tomojit Basu (Oxfam, India).

We are equally grateful for Joint Secretary Alok Dimri (MEA, India) and Sachin Chaturvedi (Research and Information Systems for Developing Countries, India) for their invitation to Prof. Karin Costa Vazquez to present the preliminary findings of the research during the Delhi Conference on South-South and Triangular Cooperation (25-26 August, 2017, Delhi). We are also grateful to Anthea Mulakala (Asia Foundation) for inviting Supriya Roychoudhury to speak at the workshop "Asian Approaches to Development Cooperation: Focus on Women and Girls' Empowerment" (13-14 September 2017, Ulaambaatar, Mongolia).

Special recognition goes to Aparna Raman for her administrative support to the workshop "What Future for Development Cooperation: Building Innovative and Inclusive South-South Institutions." We are also thankful to our graphic designers Manoj G.D and Anil Kumar.

We also thank Daniel Girardi Deiro for his constant support and encouragement to the BRICS Sustainability Index project.

List of Abbreviations

| | |
|--------|--|
| ADB | Asian Development Bank |
| AIIB | Asian Infrastructure and Investment Bank |
| BNDES | Brazilian Development Bank |
| BRICS | Refers to the group of countries Brazil, Russia, India, China and South Africa |
| CBI | Climate Bonds Initiative |
| CESSTD | Committee on Environmental and Social Sustainability and Territorial Development |
| CSOs | Civil Society Organizations |
| CSR | Corporate Social Responsibility |
| DBSA | Development Bank of South Africa |
| EMDCs | Emerging Markets and Developing Countries |
| ESF | Environmental and Social Framework |
| ESG | Environmental, Social and Governance |
| G-20 | Group of Twenty |
| GRI | Global Reporting Initiative |
| GVces | Getúlio Vargas Foundation Centre for Sustainability Studies, Brazil |
| IADB | Inter-American Development Bank |
| IBRD | International Bank for Reconstruction and Development |
| ICIJ | International Consortium of Investigative Journalists |
| IDA | International Development Agency |
| IFC | International Finance Corporation |
| IFIs | International Financial Institutions |
| ILO | International Labor Organization |
| IMF | International Monetary Fund |
| LCA | Life Cycle Assessment |
| MDB | Multilateral Development Bank |
| NAPs | National Action Plans |
| NDB | New Development Bank |
| NDC | Nationally Determined Contributions |
| NGOs | Non-Governmental Organizations |
| SDGs | Sustainable Development Goals |
| UN | United Nations |
| UNFCCC | United Nations Framework Convention on Climate Change |

Executive Summary

The world's infrastructure gap is currently estimated to be an astronomical US\$ 90 trillion by 2030. Recognizing this shortfall of resources will be particularly significant in emerging markets, governments of the BRICS countries decided in 2015 to create their own financial institution, the New Development Bank (NDB). The NDB's aspiration to meet the vast and unfulfilled infrastructure requirements of its member countries, whilst retaining a deliberate focus on sustainable development, represents a bold departure from approaches currently followed by its counterpart institutions. The NDB's efforts to promote what it broadly labels as 'sustainable infrastructure' is thus both welcome and laudable.

However, as an institution that is now only in its second year of operation, and which is still in the process of pioneering its own unique approach to development financing, the NDB will no doubt be confronted with a number of challenges along the way. Questions persist around how exactly the NDB will define, build, measure and monitor sustainable infrastructure, how it will incentivize investments in sustainable infrastructure and whether and how it will formalize its engagement with the many stakeholders both engaged in, and directly impacted by, the development process. During this early phase of its existence, the NDB must plan around and account for these, as well as other, considerations. By doing so, the NDB will not only avoid replicating the mistakes of the very institutions and structures it seeks to challenge, but more importantly, it will enable it to pioneer a radically new approach to multilateral development financing.

This report - the result of the BRICS Sustainability Index project, a partnership between the Centre for Latin American and African Studies at O.P. Jindal University in India, Conectas Human Rights in Brazil and Fudan University in China – addresses some of these challenges and questions, and presents policy recommendations for a possible way forward for the NDB. To capture best practices and lessons of potential relevance to the NDB, twelve multilateral development institutions and organizations were benchmarked. In addition, inputs were sought from a range of stakeholders – government officials, private sector representatives, civil society, development practitioners, policy analysts and others - through bilateral conversations, online consultations and policy discussions.

To guide the NDB during its strategy implementation phase, the report seeks to provide concrete guidance on the following three areas:

1. Understanding sustainable infrastructure

The report argues that the easiest way to define sustainable infrastructure is to build on the triple bottom-line of sustainable development that integrates economic, social and environmental performance, in addition to financial feasibility of the project. The emphasis on each pillar of the sustainable development triple bottom line needs to be nuanced to reflect each of the BRICS' national development priorities. At the very least, however, sustainable infrastructure would need to abide with certain minimum, universally-agreed principles relating to the protection of human rights as well as the environment.

Sustainable infrastructure should not be assumed to be synonymous with green or renewable energy projects, and neither should traditional, physical infrastructure be assumed to always be unsustainable.

2. Laying down the principles for sustainable development

- a. *Pragmatism, but not conformism*: A pragmatic approach would involve focusing on projects that address local problems and assist countries in their transition to a low-carbon economy. A non-conformist approach involves recognizing that infrastructure projects are often designed and implemented in highly unequal settings in terms of distribution of political and economic power.
- b. *Incentivize rather than regulate*: Building on the experiences of the BRICS countries to design financial and other forms of incentives to promote sustainable infrastructure projects.
- c. *Inclusive and bottom-up approach*: Pre-empting potential conflict arising from infrastructure investment by establishing meaningful participation and consultation processes with civil society.
- d. *Gender-responsiveness*: Ensuring that a gender-responsive approach to sustainable infrastructure catalyzes positive and transformative development impacts for women.
- e. *Strengthen country systems*: Prioritizing the strengthening of country systems to ensure sustainable development, greater country ownership, and robust social and environmental management. Any use of country or corporate systems must still ensure a minimum level of social and environmental protection.

3. Developing a model for assessing the sustainability of NDB's infrastructure projects

Informed by the above principles, a model is presented to form the basis for the future creation of a composite index that assesses the sustainability of projects. The model would comprise the following three levels, and over time, criteria could be developed across each level:

- a. *Strategic*: Does the project enhance competitiveness, connectivity and openness? What is the project's contribution to broader development objectives (including the Sustainable Development Goals)? Is the project designed to foster systemic innovation?
- b. *Tactical level*: Is Environmental, Social and Governance analysis applied in the project? Are corporate social responsibility (CSR), ethical and human rights standards used to assess private parties' adherence to sustainability frameworks? Are country systems being strengthened?
- c. *Operational level*: Are safeguards capable of preventing harm to communities and the environment? How is compliance with safeguards ensured? What are the monitoring tools and indicators? Are fundamental rights being respected?

Building on the above, the report proposes the following recommendations to the NDB:

Firstly, NDB needs to develop criteria or operational indicators to enable it to design, build, implement and evaluate the sustainability of infrastructure projects. Both the principles and criteria should build on existing global norms, standards and best practices in sustainable development. The NDB could consider creating a multi-stakeholder task force on sustainable infrastructure to elaborate these criteria or operational indicators. These indicators could form the basis for a 'sliding scale' of sustainability and composite index, rather than a punitive check-list. The NDB could consider applying such a scale and index in its future lending operations through its Regional Offices and Independent Evaluation Unit. In the absence of clearly defined principles and criteria to qualify the very notion of 'sustainable infrastructure', it will be challenging for the NDB to designate infrastructure as sustainable.

Secondly, whilst a common set of principles and criteria should be developed to guide the NDB's investments in sustainable development and infrastructure, these should be applied bearing in mind the context and development trajectories of the borrowing country. In other words, the NDB should encourage a common but differentiated approach to sustainable development. There is likely to be greater appetite and buy-in for investment in sustainable development and sustainable infrastructure projects by borrowing countries if it is directly linked to the fulfilment of their respective national development priorities, including those linked to the Paris Agreement as well as the Regional and National Action Plans associated with the Sustainable Development Goals.

Thirdly, the NDB must expand on the 'do no harm' approach, typically adopted by traditional multilateral development banks, to incorporate a more 'transformative' approach towards development. Whilst the 'do no harm' approach uses safeguards to 'avoid, mitigate and compensate' adverse social and environmental impacts, the transformative approach relies on creating incentives to encourage investment in infrastructure projects that consciously generate additional and positive spillovers for both the community and the environment. Failing to adopt an integrated approach combining both safeguards and incentives may undermine the NDB's mandate to support and catalyze sustainable development. The NDB could support the establishment of a Centre of Excellence on sustainable infrastructure to generate and share knowledge, including through the hosting of a collaborative platform for MDBs and Southern stakeholders.

Fourth, to encourage investment in social infrastructure, the NDB could offer to clients a wide range of financial incentives, such as special credit lines (with longer repayment terms and lower rates) and insurance against project risks. The greater the sustainability of the project – which could be determined either via indicators and a sliding scale of sustainability – the more generous the incentive could be. The reverse could also apply; clients that fail to integrate social and environmental considerations into their project planning, could be deemed ineligible for loans. Non-financial incentives could include capacity building and technical support to clients to ensure that they design bankable projects that integrate key sustainability criteria, or which are of a highly sustainable nature according to the sliding scale of sustainability. An 'incentives' based approach to clients is more likely to catalyze investment in sustainable development and infrastructure.

Fifth, the NDB needs to urgently consider developing a proactive hiring policy to attract and retain female talent as well as a stand-alone gender policy to further women's access to and control over economic resources. A multi-stakeholder gender taskforce comprising civil society from the BRICS and as well as representatives of the NDB could be set up to collectively produce such policy. In addition to the hiring and standalone gender policy, the NDB should encourage gender mainstreaming by ex-ante and ex-post monitoring and evaluation of NDB's projects, to assess impacts on women. As women are often disproportionately impacted by infrastructure projects, it is essential that the NDB develops a gender-responsive approach to sustainable infrastructure.

Finally, the NDB must ensure that participation and partnerships stand at the core of its operations. Participatory and consultation processes with civil society and local communities across the project cycle could help to ensure the fair treatment of the affected communities, environmental protection and accurate estimates of the financial cost of the project. Several risk assessments conducted for big infrastructure projects show that CSO participation is often viewed favorably, as it is seen to be major guarantee of project efficiency and cost reduction. The heterogeneity of civil society, including not only NGOs but social movements, community based organizations, trade unions as well as academia and think tanks, means that civil society actors could provide and perform a range of roles and functions in relation to their engagement with the NDB.

The NDB, in turn, could explore a number of different modalities from thematic task forces to a multi-stakeholder reference group conceived by and comprising members from all BRICS countries, to institutionalize its engagement with civil society while retaining its lean structure. A plan for NDB-civil society interaction with dedicated budget could be developed to further consider and implement such arrangements.⁴ As the NDB expands its operations and scales up its activities, civil society oversight and engagement will be needed to ensure that the Bank remains innovative, inclusive, accountable and transparent.

Over the next five years, the NDB will look to implement its inaugural five-year strategy. At this point, it remains unclear to what degree the NDB will succeed in redefining the contours of international development financing. New approaches, modalities and partnerships are on offer. Ambitions and aspirations run high, but these must now be matched with action on the ground. The NDB has an unprecedented opportunity to unlock new funding and catalyze a bold, new approach to development, both within the BRICS as well as other developing economies of the Global South. It must do it well, and it must do it right.

1. BACKGROUND

The modern concept of sustainable development is derived mostly from the 1987 Brundtland Report.⁵ Since then it has evolved from an intergenerational framework to focus on the goal of “socially inclusive and environmentally sustainable economic growth.”⁶ It has been suggested that “the term 'sustainability' should be viewed as humanity's target goal of human-ecosystem equilibrium, while 'sustainable development' would refer to the holistic approach and temporal processes that lead to the end point of sustainability.”⁷ As such, **sustainable development implies a shift from a sector-oriented approach towards doing business, to a system approach premised on integrating environmental and social concerns across all development processes.**

In 2015, a new international architecture for sustainable development began to take shape. Building on the United Nations' Financing for Development Agenda in Addis Ababa and then the formal adoption of the Sustainable Development Goals (SDGs) in September, the year culminated in the Conference of Parties 21 in Paris. Almost 190 countries, accounting for more than 98 percent of greenhouse-gas emissions, agreed to a global climate-change strategy.⁸ Each country submitted a voluntary plan that set out how it will move its economy onto a lower-carbon growth pathway. **With the recent withdrawal of the United States from the Paris Agreement, emerging markets such as India and China may well provide a new kind of leadership to climate change efforts,** including for example, fostering of new knowledge and enhancing South-South cooperation.

With this structure in place, **attention now shifts toward how to implement and finance sustainable development.** While these voluntary plans will take years to play out, one likely effect is to direct investment toward more sustainable projects, including infrastructure. Given the scale of investment required, creating the right conditions for this investment is essential. From 2015 to 2030, global demand for new infrastructure could amount to more than US\$ 90 trillion from a total estimate of US\$ 50 trillion in 2015.⁹ In India alone, this amount could reach US\$ 646 billion over the next five years.¹⁰ Investing in infrastructure in sustainable fashion will likely increase up-front capital costs by 6 percent for individual projects.¹¹

The trillion-dollar infrastructure financing gap figures prominently amongst the reasons why emerging powers have decided to set up 'parallel' structures of multilateral economic cooperation in recent years. In 2015, the New Development Bank (NDB) was established by the BRICS countries (Brazil, Russia, India, China and South Africa) with the purpose of mobilizing resources to finance infrastructure and sustainable development in emerging markets and developing countries (EMDCs). The need for this came with the realization of the financing gap as well as the drive to move towards positive and transformative development for the countries of the South.

The NDB's stated commitment to sustainable development is perhaps the single-most important feature that differentiates it from other existing Multilateral Development Banks (MDBs), as it promises the possibility of departing from the traditional, business-as-usual approach.

In May 2016, the board of directors of the NDB met on the sidelines of the World Bank and the International Monetary Fund spring meetings in Washington, D.C., to approve its first set of loans worth US\$ 811 million. By the end of 2016, a total of seven projects in all member countries worth over US\$ 1.5 billion had been approved. With the exception of financing a road project in the state of Madhya Pradesh, in India, the NDB's funds have been earmarked for renewable energy projects across the BRICS countries, including two solar energy projects in India and China, a wind power plant in China, a small-scale hydropower dam in Russia, and a credit line worth US\$ 300 million to finance renewable energy projects such as solar and wind power, in Brazil (Annex I)¹². The NDB's apparent prioritization of renewable energy projects thus seems to reflect its stated intention to support sustainable development across the BRICS countries.

In August 2017, the NDB Board of Directors approved four new projects in China, Russia and India with loans aggregating over US\$ 1.4 billion. The second tranche of projects broadened the scope of NDB's activities to areas ranging from information technology to energy conservation, although the focus still appears to be to support sustainable development. Projects include a US\$ 2 billion sovereign project finance facility for flood control and water quality in China's Hunan province and a US\$ 470 million sovereign project loan for developing the rural drinking water supply scheme in the Indian state of Madhya Pradesh. Going forward, another US\$ 30 billion in loans, representing about two thirds of the NDB's total subscribed capital, has already been announced¹³ (Annex I). This would include financing a total of 15 projects by the end of 2017 and up to 50 in 2021.

Objectives

In recognition of the significant infrastructure gaps that the BRICS countries face, the NDB has been clear that sustainable development will be linked to the financing of infrastructure projects.¹⁴ However, it has been less clear about how these projects will be rooted in social and sustainable practices.¹⁵ The NDB's loans could potentially harm local communities, women and ecosystems if proper measures are not put in place,¹⁶ Addressing these questions will be critical as the NDB implements its five-year strategy and attempts to fulfil its vision around sustainable development.

Against this backdrop, this paper aims to:

1. **Offer a working definition of 'sustainable infrastructure' and fundamental principles that would support the NDB in its mission to promote sustainable development.** A working definition of sustainable infrastructure coupled with a framework for assessing the sustainability of projects would equip the NDB with the necessary policy tools to fully articulate its mandate and carve out a niche for itself in the development finance landscape. Acknowledging that sustainable development is as much an outcome as it is a process could help to further guide the Shanghai-based bank in its selection and implementation of infrastructure projects that are more in line with its mandate.¹⁷
2. **Outline a model that could form the basis for the future development of socially and environmentally inclusive and gender-responsive criteria for preparing, overseeing and evaluating NDB-funded projects.** These criteria could be consolidated in a composite index¹⁸ used for two main purposes: (i) measure the actual sustainability of NDB's projects; and (ii) guide the Bank in the design of financial and non-financial incentives to projects that not only minimize or mitigate adverse impacts on the environment and vulnerable groups, but also go beyond “doing no harm” to generate positive and transformative impacts in borrowing countries.

This is based on the assumption that linking sustainability to incentives would encourage governments to think about sustainable practices not as bureaucratic formalities or risks to be avoided, but as actions conducive to better development outcomes.¹⁹ This would represent a major shift in the way environmental and social standards are conceived in the development finance landscape.²⁰

3. **Describe possible partnership models and arrangements that could be developed to operationalize and integrate into the NDB's ways of working the tools described above.** In its five-year strategy, the NDB has outlined its commitment to working in partnership with a wide range of organizations including international development organizations, national development banks, commercial banks, as well as civil society. With respect to civil society, which can be further broken down into the sub-categories of NGOs, think tanks, universities, social movements and many others, the NDB is yet to consolidate and formalize institutional arrangements to strengthen its partnership with these actors. As an organization with a global mandate and a lean structure, working with multi-stakeholder networks would be key for the NDB to deliver its mandate. This report proposes concrete recommendations on what those partnership models and arrangements could look like.

In addition to assisting the NDB with the operationalization of its mandate to catalyze sustainable development, each of the three policy tools outlined above could offer significant benefits for the various stakeholders involved in the development process. For governments, they could provide the basis for the conceptualization of projects that have sustainability embedded in their DNA, thus allowing for enhanced service delivery and transition to a low carbon economy. For the civil society, these tools could be used to monitor the negative social and environmental spillovers of the NDB's projects as well as their potential for unleashing positive and transformative impact, thus more closely connecting development finance to people's needs and priorities.

Methodology

The research was divided into three phases. The first phase consisted of desk review and benchmarking of the definitions of sustainable “development” and “sustainable infrastructure” and the criteria adopted by three groups of organizations: (i) Multilateral Development Banks (Interamerican Development Bank, Asian Development Bank, World Bank, International Finance Corporation, and the Asian Infrastructure Investment Bank); (ii) National Development Banks and private commercial banks (Brazil's Economic and Social Development Bank, South African Development Bank, and Yes Bank); and (iii) Research institutions and other organizations (Harvard, Global Reporting Initiative, Climate Bond Initiative, Getúlio Vargas Foundation Centre for Sustainability Studies).

Recognizing the wealth of experiences accumulated by the three groups, the benchmarked organizations were selected based on the following parameters: (i) trends in sustainable development and infrastructure research and financing; (ii) potential lessons they could offer to the NDB; (iii) availability of data and information; (iv) regional balance; (v) geographic scope; and (vi) type of organization.²¹

Benchmarking was limited to NDB's priority sectors outlined in its current five year strategy (2017-2021), namely: clean energy;²² transport infrastructure that enhances connectivity between people, markets and services;²³ irrigation, water resource management and sanitation;²⁴ sustainable urban development;²⁵ economic cooperation and integration.²⁶ This paper brings examples from the different sectors prioritized by the NDB as an illustration to the points discussed; it does not focus on any specific sector. The guiding questions for the benchmarking and analysis are in Annex II.

In the second phase, the concept of sustainable infrastructure and the core indicators were detailed out based on the findings of phase one, desk review of NDB core documents (Founding Document, Strategy 2017-2021, Environmental and Social Framework, and Information Disclosure Policy) and semi-structured interviews conducted with NDB officials in Shanghai as well as academicians, representatives of civil society organizations, private banks and governments in Brazil, India and China between June – August 2017.

The third and final phase culminated in the workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017, in New Delhi, India. The workshop had the participation of representatives from academia, think-tanks, non-governmental organizations, private foundations, peoples' movements and feminist networks from the BRICS countries. An online consultation and peer review were also conducted in September 2017.

This paper is structured as follows: the first section contextualizes the creation of the NDB as a tool for emerging markets to meet their development goals under an emerging 'global consensus' on the need to unlock financing for infrastructure in the developing world. The second section presents the lessons drawn from the benchmarking conducted across selected multilateral development banks, national development banks, private commercial banks, research institutions and other organizations. The last section discusses emerging opportunities for the NDB, including a working definition of sustainable infrastructure, key principles for assessing the sustainability of NDB projects, a model for sustainability assessment, and partnership arrangements that could be put in place to realize these goals.

2. THE BRICS AND THE BIG PUSH FOR INFRASTRUCTURE IN THE GLOBAL DEVELOPMENT AGENDA

The BRICS have come a long way since the first move towards its formalization in 2006 at a meeting of the foreign ministers of Brazil, Russia, China and India on the margins of the 61st UN General Assembly. This process culminated two years later at the BRIC Heads of State meeting, where the four countries agreed to boost cooperation for a more democratic international system founded on the rule of law and multilateral diplomacy.²⁷ Alongside the UN, the G20 was another early harbinger for a new multipolar world order supported by the BRIC as the premier forum for a broader, more inclusive, more representative and more effective international economic cooperation.²⁸ The move towards formalization of the grouping was concretized in 2009 at the first BRIC summit in Yekaterinburg.²⁹ In 2010, China's invitation to South Africa to join the BRIC was perceived as a two-fold strategy to enhance geographic representation of the grouping as well as recognize South Africa's potential to open up market access for Chinese exports in Africa.³⁰ Since then annual summits have been held in each of the BRICS countries with the last one held in China in 2017.³¹

The BRICS countries together represent over 40 percent of the total world's population, 30 percent of the total land area and close to 25 percent of the global gross domestic product.³² Despite their different economic and political structures, the **BRICS countries are jointly carving new ideas to reform global governance. This means that rather than mechanically following the rules made 70 years ago, the five countries have the opportunity to create a vision on how the world should look like the next 70 years and prepare for it by building the alliances, rules and institutions that should be at the forefront of this new global order.** Their respective national development experiences make BRICS countries resistant to market fundamentalism and natural advocates for institutional diversity and policy experimentation.³³ As such, the BRICS can articulate a new global narrative that emphasizes real economy over finance, policy diversity over harmonization, national processes over externally-imposed conditionalities, and social-cultural inclusion over technocratic elitism.³⁴

In fact, the BRICS' attempt to shape a new development agenda is based on these countries' own national experiences. These draw upon the two dominant development models of the Global South: the Asian economic growth model and the poverty reduction model of Latin American and African countries. If on the one hand the diversity of experiences hinders BRICS ability to 'export' one particular development model,³⁵ on the other it creates space for the development of more inclusive, gender-responsive and equitable initiatives that acknowledge the common challenges in the Global South and that could further evolve through the invigorated desire of reshaping the global development agenda.

Whilst recognizing the potential of the BRICS to advance a transformative global economic agenda, questions persist around the extent to which the “needs of the South” coincide with the needs of “the people of the South.” Advocates claim that the BRICS would reproduce a “corporate-driven”³⁶ model of capitalism that is “neo-extractivist”³⁷ in essence and create new forms of power asymmetry. This view is based on the narrative that the BRICS arose within the international financial system and would naturally take advantage of it to consolidate itself.

This can be seen as proof that the current global governance system works and though the players may change, the structures remain the same. New groupings and institutions would, therefore, seek to integrate themselves into the existing order but at the same time try to retain the highest possible degree of sovereignty and autonomy so that they can follow their own models of development.³⁸ This echoes Ikenberry's assertion that the current liberal world order is "easy to join, but hard to overturn."³⁹ In fact, the complete and abrupt disengagement of the Bretton Woods architecture can be politically and economically costly for many for the BRICS countries. For instance, India has been one of the largest recipients of World Bank's loans over the past 70 years:⁴⁰ In the aggregate of IBRD and IDA disbursements India ranks first with total accumulated loans of US\$ 102.3 billion, followed by Brazil with US\$ 58.8 billion, and China with US\$ 55 billion.⁴¹

Addressing infrastructure needs

Poverty and inequality are two of these challenges common to all BRICS countries. In 2011, poverty headcount ratio (as percent of total population) was the highest in India with 23.63 percent people living under US\$ 1.25 a day, followed by South Africa with 9.42 percent, China with 6.26 percent and Brazil with 4.53 percent. Despite the decrease in income inequality between 1990-2000, the BRICS remain champions of other forms of inequality: in South Africa, India and China, rural dwellers are increasingly poorer than their urban counterparts; 50.3 percent of China's rural population is excluded from public benefits such as health insurance and higher levels of education; in all the BRICS, girls are disadvantaged in levels of access to education, especially in rural areas.⁴²

Acknowledging the need to promote initiatives based on ground realities and the different societal and geographical contexts, development requires ensuring inclusive and equitable benefits in highly unequal societies. The BRICS countries therefore need to ensure sustainable growth that address inequalities so that the deprived sections of their population too experience welfare through development.⁴³

BRICS have the opportunity to move beyond the bare minimum, towards initiatives that unleash positive and transformative development. It is here that infrastructure plays a vital role. Infrastructure encompasses a whole range of dimensions: physical (i.e. transport, communication, energy), knowledge (i.e. infrastructure that allows the transformation of how knowledge is produced and communicated; skill development and education)⁴⁴ and social (i.e. sanitary and sewage infrastructure that contribute towards clean and healthy communities). Big infrastructure is regarded by the BRICS to be a key modality to connect disparate geographical territories, resulting in an increase in trade and economic growth both nationally (mainly in India, Brazil, South Africa) as well as regionally (Africa and Latin America). This logic has been manifested in the mega-infrastructure and connectivity initiatives pioneered by some of the BRICS countries: for example, India's Asia Africa Growth Corridor initiative in partnership with Japan as well as China's Belt and Road Initiative.

Traditional MDBs: challenges and limitations

Over the last decades, Western donors have marginalized infrastructure by looking at it through a singular lens of either poverty reduction or economic growth. MDBs have shied away from infrastructure investment for three main reasons. Firstly, due to reputational and political costs linked to investments in highly controversial projects, such as the emblematic Narmada dam, in India, and the Polo Noroeste highway, in Brazil. The scale and magnitude of the impacts of these large-scale projects attracted fierce opposition from activists and civil society organizations.

Civil society organizations were partially successful in imposing prohibitions on large-scale projects, resulting in an alignment of infrastructure projects with the goals of the Agenda 2030 by traditional MDBs as a remedial measure. The problem however rests in the attractive nature of projects that are more economically viable as opposed to inclusive, equitable and sustainable.

Additionally, the 1980s and 1990s saw the *intelligentsia* of the World Bank, the International Monetary Fund (IMF) and other international financial institutions embracing the paradigms of the Washington Consensus, thus provoking a shift from infrastructure investment to policy lending targeted at institutional reforms in the developing world. The positive spillover of such reforms is yet to be realized. As a consequence, having infrastructure projects in an institution's own balance sheet has become more of an "old paradigm" of development assistance. Current mainstream of development economics recommends that development finance institutions should instead focus in creating an "enabling environment" for private investments. Thus, they should help developing countries "improve" their legal and regulatory frameworks to reduce private sector's perceived risk over sustainable infrastructure development projects,⁴⁵ and not assume the risks of the projects themselves. This would allow for a more guiding role by MDBs, wherein effective monitoring and evaluation roles can be embodied to ensure long-term sustainable development of projects.

Post the 2008 global financial crisis, commercial banks tightened investments in infrastructure, even as central banks in developed countries put interest rates at historic low levels under the so-called "quantitative easing" programs. The aversion of private sector to infrastructure investment led to the creation of a global "task-force" championed by the G-20 with the main traditional MDBs as partners. The aim was to find ways to "unlock" private capital to the infrastructure sector. A report prepared by the Deputy Finance Ministers and Deputy Central Bank Governors of the G-20 group,⁴⁶ recommended that International Financial Institutions (IFIs) make use of the wide range of financial and non-financial instruments, such as guarantees programs, Public-Private Partnerships (PPP), project preparation facilities, sub-sovereign lending initiatives, technical and advisory support and other measures. It is also recommended that IFIs focus on ensuring a supply of 'bankable projects' by making available more funds for preparing projects, undertaking feasibility studies and developing national infrastructure strategies.

Insufficient funds have been claimed as the primary reason behind stagnating infrastructure projects and crippled development. It is estimated that by 2030 sustainable development financing will be at the order of US\$ 50 trillion,⁴⁷ highlighting that long-term finance maturity is at the core of sustainable financing.⁴⁸ While more lending does not automatically translate into better development outcomes, a more streamlined lending institution can ensure sufficiency of funds with fewer bottlenecks. The World Bank, for instance, is critiqued to be akin to an 'old ship', slugging under the weight of 'sticky budgetary accretions and transaction costs [...] steadily impeding its speed and performance (...) In the 2015 financial year, the European Investment Bank lent more than twice the amount provided by the [World] Bank, but with one-sixth the staff.'⁴⁹ It is thus important that measures like ensuring that initial phases of project preparation and evaluation are streamlined, without compromising quality and soundness of environmental and social impact assessment and mitigation plans, are put in place. It is however crucial to view the investment in terms of its inclusive and sustainable nature and the efficient management of funds, as opposed to merely the bankable nature of project.

Further, traditional infrastructure investments are often subject to criticism of social and environmental impacts of infrastructure and human rights violations. There are numerous cases of infrastructure projects, such as roads and electricity dams, which have forcibly displaced thousands of peoples and severely affected the collective rights of indigenous peoples⁵⁰.

A recent report by the International Consortium of Investigative Journalists (ICIJ) has found that World Bank projects have caused the forced displacement of more than 3 million people worldwide.⁵¹ Inclusive infrastructure highlights the need for the communities to experience development as opposed to displacement, through income generation and increased consumption, as well as through mitigation of environmental risks. It then becomes imperative for the BRICS' to ensure infrastructure that is sustainably inclusive in all its dimensions – economic, social, and environmental.

An emerging consensus

All these elements point to an 'emerging consensus' that infrastructure investment is needed to overcome poverty, unemployment, ensure inclusive and equitable development as well as push for transformation that brings environmentally responsive investments. Stiglitz and Stern argue for a global policy shift to prevent another major financial crisis, as the excess of reserves should be channeled to productive investments, rather than inflating new bubbles caused by speculative investments.⁵² The excess of savings should be channeled to productive investments, of which the most urgent is infrastructure. Further, Stiglitz and Stern articulate that a coordinated effort by the BRICS in the realm of development finance is an idea 'whose time has come.' In their view, traditional multilateral institutions are failing to live up to the expectations of the emerging world and are not adequately equipped to tackle climate change, whose brunt is borne by the developing countries.⁵³

An infrastructure gap in developing countries and emerging markets will require trillions of dollars be invested annually to sustain a minimum level of inclusive growth that will help achieve substantial reduction in poverty and inequality. Hence **the main rationale for the establishment of a 'new' development bank is the commitment to diversify the existing range of financial instruments and expand partnerships to ensure that infrastructure investments go beyond the “do no harm” approach and bring about positive outcomes in economic, social and environmental terms.**

Notwithstanding the challenges experienced by traditional MDBs, this new development bank would have an opportunity to reconcile the economic growth-poverty elevation debate by generating positive environmental spillovers as well as ensuring equitable development. Such infrastructure should incorporate the various components of sustainable development, particularly the ability of communities to experience welfare as opposed to 'do no harm.' While there is a demand for infrastructure across the BRICS countries, it will be important to create infrastructure that goes beyond the economic considerations. A new global agenda should foster space for individuals to positively interact with infrastructure and ensure maximum benefit through sustainable, equitable and effective consumption by all.

The New Development Bank

The idea of setting up a new development bank was first proposed at the 4th BRICS Academic Forum in 2012. Among the recommendations put forward by experts and scholars from research and academic institutions of Brazil, Russia, India, China and South Africa to the BRICS leaders for their consideration was “studying the establishment and operational modalities of financial institutions such as a development bank and/or an Investment Fund that can assist in the development of BRICS and other developing countries” to help take forward the BRICS Sanya Summit decision in the previous year to “strengthen financial cooperation” among their individual development banks.⁵⁴

Despite claiming that economic growth remained an imperative and could not be substituted, the Forum added that the BRICS countries should further seek to create institutions that enable viable alternatives for enhancing an inclusive socio-economic development agenda by investing into

sustainability and development initiatives both within the BRICS and outside in the least developed economies of the world. Such institutions would eventually seek to set global benchmarks for best practices and standards.⁵⁵

The recommendation for the creation of a new development bank was included in the final declaration of the 4th BRICS Summit in New Delhi.⁵⁶ The BRICS countries expressed their concern over the prevalent global economic situation and how the policies of the developed world were having negative effects on the developing world.⁵⁷ Citing the pressing need for greater flow of development fund in the emerging markets and developing nations, the five countries discussed the need to set-up a new development bank. This bank would help BRICS nations and other emerging markets and developing nations in supporting their efforts in meeting their infrastructure and sustainable development goals by closing the investment gaps.

After conducting a feasibility study, the five countries declared at the 5th BRICS Summit in South Africa in 2013 that they had decided to set-up a new 'New Development Bank' in an effort to provide sufficient funding for infrastructure development and complement the existing international arrangements.⁵⁸ The agreement to establish the New Development Bank was signed during the 6th BRICS Summit in Brazil in 2014, when countries agreed to an initial authorized capital of US\$ 100 billion from which US\$ 50 billion was the initial subscribed capital. Lending operations started two years later, in 2016.⁵⁹ The NDB would strengthen cooperation among BRICS countries and supplement the efforts of multilateral and regional financial institutions for global development, thus contributing to collective commitments for achieving the goal of strong, sustainable and balanced growth.

In June 2017, Board of Governors of the NDB released its first strategy for 2017-2021. The strategy declared that the Bank intends to be “new” in three areas: (i) relationships, (ii) projects and instruments, and (iii) approaches. In each of these areas, there are opportunities and challenges for the fulfilment of NDB's mission of promoting sustainable development as well as for systemic changes that could redirect current development finance practices towards a more sustainable path. The NDB hopes that these new approaches will help avoid issues that the IMF and World Bank have faced in their operations and also meet its target of achieving sustainable development.

Relationships

In a clear manifestation of the horizontality engrained in South-South Cooperation, the BRICS countries are both shareholders and borrowers of the NDB. As such, the NDB could become one of the major pillars supporting the development of the Global South by the Global South itself, allowing for ample space for innovation and solutions tailored to specific development needs and which are respectful of countries' development priorities and strategies. Abiding by nationally-defined laws and systems is not at all surprising, given that respect for territorial sovereignty continues to be a major pillar underlining the foreign and development cooperation policies of the BRICS. Keen to ensure that project-financing is not in any way linked to the kinds of political and economic conditionalities typically associated with the traditional MDBs, the NDB appears to remain firm on its commitment to defer to nationally-defined laws and procedures on project implementation. Nevertheless, one key challenge that remains unaddressed is the lack of clear methodologies and instruments to assess and strengthen borrowers' countries systems, especially where they are weak or not up to par with globally accepted standards.

The governance structure of the NDB further encourages equality, mutual respect and trust among member countries. Most of NDB's decisions are taken on the basis of a simple majority, and no single member has veto power over any matter. Participation in the strategy-defining and decision-

making process is very much guided by a “division of labor” within both overall and corporate governance.⁶⁰ This structure seems to facilitate a significantly operational drive towards partnerships with national and regional development banks.⁶¹ The NDB is now thinking through its strategy to induct new members with an aim to increase geographic diversity and countries on different stages of development from advanced economies to low-income economies and dilute the influence of specific countries. As criteria for project selection and fund allocation among BRICS countries is not clearly defined, margin for subjectivity and decisions based on existing power structures can be created. As such, the sovereignty imperative may clash with the need for securing projects thus reproducing traditional donor-recipient power relationships.

Projects and instruments

According to the Bank's five-year strategy, 'sustainable infrastructure' will be the NDB's main focus, with approximately two-thirds of all projects devoted to this. However, the NDB's focus on sustainable infrastructure may prove to be tricky as it seeks to collapse two concepts which, on the face of it, may be somewhat incompatible. Hochstetler argues that sustainable development and infrastructure investments are at least “partially incompatible priorities.”⁶² This could be on account of two main reasons. Firstly, the heavy social and environmental costs of traditional infrastructure projects that merely account for financial viability through cost-benefit analysis cannot be offset through a separate set of sustainable development projects, that may or may not be directly related to infrastructure. Secondly, even “green infrastructure” projects such as solar and wind energy, can generate negative impacts in the absence of a robust set of standards for environmental and social assessment and risk management and monitoring mechanisms. Thus negating the intention of sustainable infrastructure to maximize the “positive” as identified by the NDB.⁶³

A study with a review of thousands of large-scale infrastructure projects around the world concluded that such projects are governed by an “iron law:” “over budget, over time, under benefits, over and over again.” The study found that biases in the conception of the main actors of the governance of large infrastructure projects render the social and environmental impact assessments highly “misleading.”⁶⁴ As for now, considering the 11 projects approved until the present date, six of them are on renewable energy. This signals NDB's caution in its initial years possibly with a view of shielding itself from criticisms⁶⁵ as well as in a strategic move considering India's and China's on-going strategy to pursue green agendas nationally.⁶⁶

The NDB would help mobilize additional resources in financial markets, thus leveraging members' individual contribution (paid in capital) and allowing more investments to fulfil national needs/demand. To do so, the NDB has set new approaches to lending by: (i) offering semi-commercial loans (rather than Official Development Assistance); (ii) doing it sustainably.⁶⁷ Yet, the lack of clarity on what projects will be funded and how the bank will assess development outcomes beyond the project-level are some of the challenges ahead of the NDB as long as setting specific tools to assess companies' adherence to CSR standards in private sector operations.

Approaches

The NDB aims to have a short loan-processing time of six months compared to 14 months of the World Bank.⁶⁸ Yet, NDB's commitment to faster project approval and disbursements might come at the expense of the environmental and social soundness of the projects if there is no proper allocation of human, technical and financial resources to monitor projects to ensure compliance with the Bank's own policies and minimum sustainability criteria.

The bank's primary emphasis on sustainable development and providing investment support to emerging markets and developing nations are complementary to each other. NDB can not only supplement but also emerge in the coming years as the primary source of finance for emerging markets and developing nations to meet their infrastructure and sustainable development goals. The Bank uses a risk-based approach to project approval and oversight that mandates more intensive ex-ante reviews for complex, socially and environmentally risky projects, while low-risk projects go through a more streamlined procedure with ex-post checks. Staff performance indicators and incentives shall be oriented towards risk evaluation, disbursement and outcomes, rather than just the number of projects approved by NDB staff. Nonetheless, lack of clarity on how to measure performance persists.⁶⁹

Table 1 – NDB innovations and challenges

| | Innovations | Challenges |
|---------------------------------|---|---|
| Relationships | <p>Horizontality and greater use of country systems</p> <p>Respect for sovereignty</p> | <p>Lack of clear methodologies and instruments for assessing and strengthening borrowers' countries systems, when weak or non-existent</p> <p>Sovereignty imperative may clash with the need to ensure project delivery</p> |
| Projects and instruments | <p>Primary focus on sustainable infrastructure</p> <p>Development of in-house technical expertise with sustainable infrastructure projects</p> <p>New approaches to lending</p> | <p>Avoid causing harm to communities and the environment</p> <p>Lack of clarity on what projects will be funded and how the bank will assess development outcomes beyond the project-level</p> <p>Private sector operations will require specific tools to assess companies' adherence to CSR standards</p> |
| Approaches | <p>Lean governance structure, faster project approval and disbursements</p> <p>Performance indicators linked to quality and outcomes.</p> | <p>Capacity and resources to monitor projects to ensure compliance with Bank's policies</p> <p>Lack of clarity on how to measure performance.</p> |

Source: Elaborated by the authors.

3. What Can the NDB Learn from other Organizations?

The NDB's stated commitment to sustainable infrastructure is perhaps its most important differentiating feature, as it marks a departure from a business-as-usual approach. The NDB General Strategy 2017-2021 broadly defines sustainable infrastructure as 'infrastructure that incorporates economic, environmental and social criteria in its design, building and operation.' It adds that the inclusion of these criteria 'derives from the recognition that traditional evaluation methods fail to account for numerous factors that have a major influence on a project's viability and developmental impact in the medium and long-run.'¹⁷⁰

But apart from stating that sustainable development will be linked to the financing of infrastructure projects, the NDB has been less clear about how it will generate medium and long-term positive developmental impact. The experience of established multilateral development banks, national development banks and research institutions working on sustainable infrastructure point to some important lessons for the BRICS to apply within the context of the NDB. Indeed, the NDB in its current five-year strategy has acknowledged its willingness to learn from the experiences of existing multilateral development banks. Common features across each of the three groups of organizations benchmarked and specific lessons emerging from the research questions (Annex II) are discussed in the following sections.

Lessons from multilateral development banks

The five MDBs and international financial organizations benchmarked (Asian Infrastructure Investment Bank - AIIB; Asian Development Bank - ADB; Interamerican Development Bank - IADB; World Bank and International Finance Corporation - IFC) have articulated their approach towards sustainable development at two levels. The first level ('aspirational') is where these banks reaffirm their strategic and corporate commitment to principles and values of sustainable development. In most cases the commitments are linked to frameworks such as the SDGs and the Paris Agreement. The next level ('pragmatic') is connected to the first one in the sense that, in order to achieve the goals enshrined in such frameworks and to realize the vision of sustainable development as per their own internal policies, these institutions normally understand that it is at the level of project design and implementation that sustainability should 'materialize.' This is where safeguards play a key role in ensuring that the operations of the banks are 'sustainable' by 'doing no harm' to the communities, the environment and rights-holders potentially affected by their activities.

The defining elements of sustainable development can be narrow or broad, depending on the MDB under consideration. These defining elements may range from climate change adaptation and mitigation to access to services and markets, inclusive growth, private sector development, gender equality and building of institutional capacities. Though social goals are normally identified, focus on the environmental dimension of sustainable development is still predominant.

The five MDBs benchmarked often declare that they are helping countries transition to a low-carbon economy and to develop resilient infrastructure, but the social impact is often treated as an externality. Requirements on consultation, disclosure of information and participation are often present, but the five MDBs' approach is not a rights-based approach to development.

In implementing safeguards to ensure that development is for the benefit of communities and will not harm the environment, the five MDBs benchmarked clarify their roles *vis-a-vis* those of the clients related to environmental and social responsibility. The level of engagement varies across the institutions and, internally, there are distinct levels of engagement according to the type of support and other circumstances. The five MDBs are normally responsible for: (i) reviewing environmental impact assessments; (ii) assessing project risk; (iii) reviewing action and mitigation plans; (iv) monitoring safeguards implementation; (v) preparing reports on the implementation of the safeguards and outcomes of the projects; (vi) guiding the client and clarifying any questions arising from the application of the safeguards. The clients are usually responsible for: (i) preparing and submitting environmental impact assessments; (ii) disclosing information/project documents; (iii) conducting consultations; (iv) preparing action and mitigation plans; and (v) setting up grievance mechanisms.

The five MDBs benchmarked have an independent accountability mechanism to enable individuals and communities affected by their activities to raise their concerns to an independent oversight authority and to review the institution's compliance with their own policies. However, the effectiveness of these mechanisms is questioned by civil society groups. What is not clear is how these MDBs contribute to the positive and transformative development of the communities in which they operate, beyond ensuring that they are not disproportionately affected by the operations ("do no harm"). Infrastructure projects are often built with no regard to the communities where they are located - these often accrue little benefit (economic and social) and bear the adverse impacts. In the view of these MDBs, the safeguards exist to achieve multiples goals within their vision of sustainability.

Focus on private sector development is present in all five MDBs, with reference to SDG 17. Public-private partnerships are seen as a mechanism to facilitate the delivery of services as well as other forms of attracting (crowd-in) private capital. Sectoral strategies are developed with reference to the targets and criteria of the sustainable development frameworks.

Table 2 - Lessons from multilateral development banks

- Aspirational and pragmatic;
- Social considerations are incidental, not integrated;
- Differentiated responsibilities for MDBs and their clients;
- 'Do no harm' rather than transformative development;
- Focus on private sector partnerships

How is sustainable development defined?

No official definition for sustainable development was found. Instead, the five MDBs benchmarked adopt a triple bottom line approach to sustainability by ensuring the economic, environmental, and social dimensions are embedded in their work with varying degrees of emphasis. Some organizations like the IFC add a fourth dimension — financial sustainability. The IFC goes further to say that sustainable development also means engaging local communities to ensure overall development and welfare of all stakeholders.⁷¹ As such, the outcome of sustainable development should be positive to both direct and indirect beneficiaries. Private sector plays a central role in promoting sustainable development, including through the procurement of local goods and services; the issuance of land property rights; the provision of housing, education and health services to displaced communities; as well as other resettlement and compensation measures and services like the provision of potable water and electricity.

Within the context of infrastructure, sustainable development can assume various interpretations. While the ADB talks about operational functioning and efficiency of physical infrastructure projects (i.e. minimize emissions that may contribute to increased short and long-term risks and to ensure infrastructure projects are resilient to short-term hazards or altered long-term future conditions),⁷² the IADB focuses on the provision of services of adequate quality as part of a vision in which infrastructure is built in a socially and environmentally friendly framework.⁷³

In most cases, there is a clear link to national, regional and international sustainable development commitments. The AIIB has embedded the economic, social and environmental pillars of sustainable development throughout the project life-cycle (i.e. identification, preparation and implementation) to facilitate clients' transition to a less carbon-intensive energy mix and to address development challenges.⁷⁴ The SDG 7 on ensuring access to affordable, reliable, sustainable and modern energy for all is also articulated across AIIB policies and presented as a business opportunity for the Bank. AIIB's Sustainable Energy Strategy highlights that Paris Agreement commitments shall be achieved by aligning AIIB's support with its members' national energy investment plans, including their nationally determined contributions (NDC).⁷⁵ The World Bank refers to the adoption of the SDGs and the signing of the Paris Agreement on climate change to recognize that economic growth, poverty reduction, and environmental sustainability are inextricably linked and essential for achieving sustainable development.⁷⁶ Sustainable development is said to come to the fore more prominently in ADB's upcoming strategy through specific reference to how ADB will align with the SDGs and the Paris Agreement on climate change.⁷⁷

How is sustainable/traditional infrastructure defined? If no formal definition exists, what is the logic behind portfolio allocation?

No definition of sustainable infrastructure was found. While there are many initiatives to promote investments in sustainable infrastructure, there is no common definition nor a unified approach to the concept. For most MDBs benchmarked, sustainable infrastructure is loosely defined as the infrastructure that is socially, economically and environmentally sustainable. Building on its own interpretation of sustainable development, the ADB defines sustainable infrastructure in terms of the operational functioning and efficiency of the physical infrastructure built. Sustainable infrastructure is therefore defined by 'internal project' elements like the environmental sustainability, low-carbon, and climate-resiliency of the materials and processes employed. The AIIB recognizes the need to address the three dimensions of sustainable development — economic, social and environmental — in a balanced and integrated manner, but it prioritizes investments promoting greenhouse gas emission neutral and climate resilient infrastructure, including actions for reducing emissions, climate-proofing and promotion of renewable energy.⁷⁸

There is an absence of a rights-based approach. Sustainable infrastructure should generate positive impacts on inclusion and poverty reduction. Yet, the social dimension of sustainable infrastructure is not framed under a “rights-based approach.” Even though requirements on consultation, participation, transparency, accountability, and non-discrimination are present in most MDBs benchmarked, people's rights are not necessarily reflected therein. This is particularly important since infrastructure projects can cause heavy social impacts.

Although it is unrealistic to develop a shared definition of sustainable infrastructure, there is a need to develop a harmonized framework and guiding principles for infrastructure project allocation. This framework and principles would focus around common building blocks of sustainable development and promote convergence around sustainable infrastructure among development finance institutions, institutional investors and private banks. In the ADB, sustainable infrastructure is based on principles like: (i) promoting low-carbon development and minimizing impacts on local environments; (ii) advancing solutions that help communities deal with the unavoidable impacts of climate change; (iii) improving the access of poor people to education, health, and basic social protections, as well as to markets and productive assets; (iv) emphasizing gender equality and the empowerment of women; (v) improving the transparency and efficiency of public resource management; and (vi) attracting direct private sector investments that support inclusive growth and improve the environment.⁷⁹ In the IFC, the principles enshrined in the Sustainability Framework require its clients to include GHG emissions in their regular reporting; set the responsibility of business to respect human rights, independently of the state duties to respect, protect, and fulfill human rights.⁸⁰ IFC sustainable infrastructure projects are also guided by the International Bill of Human Rights and the eight core conventions of the International Labor Organization.

There is also a need to place sustainability at the core focus of infrastructure planning. The IADB proposes a shift to a sustainable infrastructure focus through the incorporation of critical components of environmental sustainability from the very start of the project cycle, so that they are present as a core focus of infrastructure planning.⁸¹

What does sustainable infrastructure mean for different sectors? If no formal definition exists, what is the logic behind each sector?

Sustainable infrastructure has different meanings in different sectors. Sectors like sanitation are widely perceived as being intrinsically sustainable for their positive spillovers in the lives of the beneficiaries. For other sectors, principles or criteria of sustainability need to be externally applied by the institutions and governments. For instance, IFC investments in the extractive industries and infrastructure sectors are preceded by assessments of the risks to expected benefits. IFC also promotes transparency of revenue payments from extractive industry projects to host governments; requires that clients publicly disclose their material project payments to the host government; encourages governments and corporations to make extractive industry contracts public; and allows the redaction of commercially sensitive information that is not essential to understand the terms and conditions under which the resource is developed.⁸²

In the case of traditional infrastructure, is there any reconciling element or mechanism to offset/mitigate socio-environmental impacts?

The negative spillovers of sustainable infrastructure projects on the environment and local communities are normally corrected via safeguards. The MDBs benchmarked usually monitor the safeguard performance in their portfolio and identify potential compliance concerns as well as areas for improvement.

In the ADB, safeguard policies involve a structured process of impact assessment, planning, and mitigation to address the adverse effects of projects throughout the project cycle. The safeguard policies require that (i) impacts are identified and assessed early in the project cycle; (ii) plans to avoid, minimize, mitigate, or compensate for the potential adverse impacts are developed and implemented; and (iii) affected people are informed and consulted during project preparation and implementation.

A basic principle of existing safeguard policies is that implementation of the provisions of the policies is the responsibility of the borrowing country. Clients are usually required to undertake social and environmental assessments, carry out consultations with affected people and communities, prepare and implement safeguard plans, monitor the implementation of these plans, and prepare and submit monitoring reports. MDBs' role is to explain policy requirements to clients, help them meet those requirements during project processing and implementation through capacity-building programs, ensure due diligence and review, and provide monitoring and supervision.

By adopting safeguards, MDBs can also manage socio-environmental risks and bypass costly future project delays. Most of the MDBs benchmarked pointed the use of safeguards as a risk management mechanism. The IFC, for instance, helps infrastructure clients mitigate risks by advising them on how to build their overall environmental and social management capacity and adopt the organization's Performance Standards. The Performance Standards provide guidance on how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way, including stakeholder engagement and disclosure obligations of the client in relation to project-level activities.⁸³

Risk assessment considers the nature, location, sensitivity and scale of the project, and is proportional to the significance of its potential environmental and social impacts. In cases where environmental and social assessment may already have been carried out for the project, the MDB and the client jointly determine whether any additional environmental or social work is required. In the AIIB, project risk depends on the category of the project's component presenting the highest environmental or social risk, including direct, indirect, cumulative and induced impacts.

Reconciliation is usually ensured through the compliance advisor/ombudsman and regular supervision. The compliance advisor/ombudsman responds to complaints from project-affected communities with the goal of enhancing social and environmental outcomes on the ground. Supervision of business activities' environmental and social risks and/or impacts is conducted in accordance with the requirements of IFC's Environmental and Social Review Procedures. The Independent Evaluation Group is charged with evaluating the activities the work of IFC in private sector development

Are there any indexes/tools to measure sustainable infrastructure? What are they?

MDBs appear to focus on a safeguards-oriented (“do no harm”) approach towards sustainable growth. But safeguards are limiting in that they do not necessarily unlock the transformative nature of development. Safeguards help promote the sustainability of projects by protecting the people and environment from the potential adverse effects of development. For instance, to realize environmentally sustainable growth, ADB states that it will support the use of environmentally friendly technologies, adoption of environmental safeguard measures, and establishment of institutional capacities to strengthen their enforcement.⁸⁴

Sustainable infrastructure projects could be made to be transformative if they guarantee benefits to both the environment and society at large. In other words, sustainable infrastructure projects should not only aim to compensate or mitigate adverse impacts on the environment and vulnerable groups, but go beyond the “do no harm” approach to generate positive impacts in borrowing countries.

Separating cross-cutting, thematic environmental issues of an aspirational nature from safeguard requirements would allow each issue to be addressed in a way that enhances the focus on and attention to appropriate implementation. Whenever MDBs have aspirational development objectives, these are often intertwined with safeguards. According to ADB's Safeguards Policy Statement, “do no harm” elements are currently mixed with aspirational development objectives to varying extents in the three safeguard policies on environment, indigenous peoples, and involuntary resettlement. For instance, ADB's Environment Policy contains five main elements: (i) promoting environmental interventions to reduce poverty, (ii) mainstreaming environmental considerations into economic growth, (iii) maintaining global and regional life support systems, (iv) building partnerships, and (v) integrating environmental safeguards into ADB operations.⁸⁵ However, while the first four elements with an aspirational nature are delivered at ADB's corporate-level environment strategy, the fifth element addresses safeguard issues and assessment at the project level. ADB's option to address aspirational development objectives at a broader strategic level is considered more appropriate and effective than doing so in the more limited context of safeguard compliance.

Table 3 - Common features of multilateral development banks to sustainable development and infrastructure

| | IADB | | | ADB | | | IFC | | | AIIB | | | World Bank | | |
|---|------|---|--------|-----|---|--------|-----|---|--------|------|---|--------|------------|---|--------|
| | Y | N | Partly | Y | N | Partly | Y | N | Partly | Y | N | Partly | Y | N | Partly |
| Sustainable Development - (Definition) | ✓ | | | ✓ | | | ✓ | | | ✓ | | | ✓ | | |
| Sustainable Development Goals (Alignment) | ✓ | | | ✓ | | | ✓ | | | ✓ | | | ✓ | | |
| Sustainable Infrastructure (Definition) | | | ✓ | | | ✓ | | | ✓ | | | ✓ | | | ✓ |
| Reconciliation Methods | ✓ | | | ✓ | | | ✓ | | | ✓ | | | ✓ | | |
| Tools to measure sustainability | | | ✓ | | | ✓ | | | ✓ | | | ✓ | | | ✓ |

Source: elaborated by the authors

Lessons from national development banks and private commercial bank

The two national development banks (National Bank for Economic and Social Development – BNDES; and Development Bank of South Africa - DBSA) benchmarked have, by definition, a mandate to promote the economic development at the national level, though they have also invested in projects in neighboring countries and overseas. Since these institutions operate within the legal framework of their countries, some sustainability practices are the result of legal obligations, such as Brazilian law requirements on waste management, protection of preservation areas and indigenous peoples land rights. The private commercial bank (YES Bank) benchmarked is profit-oriented and look at sustainability mainly through the lenses of corporate social responsibility.

As with the MDBs, the two national development banks and the private commercial bank benchmarked tend to adopt a dual approach to sustainability. The first approach entails a commitment to direct more funds to 'green' or 'sustainable' projects, which are roughly understood as projects which are economic inclusive, that improve the lives of people, that address climate change and other environmental issues. In sum, projects that have a 'positive spillover' and whose adverse impacts are 'naturally' low compared to their positive outcomes. Reference to sustainability frameworks is also seen in this group. The second approach is the traditional 'do no harm', by which institutions commit to apply safeguards to minimize the impacts of projects.

The banks benchmarked have not articulated clearly and transparently a framework with criteria, indicators and other metrics to assess the sustainability of their investments. Despite promising developments in this field, it is not yet clear what will be the participation mechanisms for the development of the sustainability targets and how communities will have a chance to be consulted. Reporting on sustainability partially fills this gap of lack of criteria. The national development banks and private bank benchmarked also face the challenge of living up to stronger calls for the provision of enhanced facilities and additional funds for project preparation (this is also a challenge for MDBs). Lack of "bankable" projects create a major impediment for the building of a strong 'pipeline' of sustainable projects.

In terms of sector allocation, this group of institutions prioritizes renewable energy, energy efficiency, climate change, water and sanitation, transport and cities. There are specific sustainability criteria on a sector-basis, such as BNDES' sectoral policies on energy, mining and biofuels. They are also progressively making more use of green bonds and forming partnerships to develop the market of "green infrastructure".

The institutions in this groups have environmental and social policies with principles, guidelines and procedures for the assessment of projects in the environmental and social dimensions. The process is similar to that of MDBs in involving screening of projects, assignment of credit and environmental and social risk classification, identification of corrective measures and monitoring of impacts. However, experience with the monitoring of these institutions point to weaknesses in the monitoring mechanisms during project implementation.⁸⁶

Table 4 – Lessons from national development banks and private commercial bank

National development banks:

- National priorities are the driving force to approaches for sustainable development;
- Integrated approach to sustainable development;
- Progress on environmental pillar of sustainable development still a challenge;
- Sustainability often assessed at the corporate level, not project level, using CSR standards

Private commercial bank:

- Sustainable development defined in terms of CSR, driven by meeting shareholder interests;
- Integrating sustainability via multi-stakeholder approaches;
- Lack of clarity on the precise use of environmental and social indices for project selection;
- Sustainability reporting according to the Equator Principles and IFC guidelines.

How is sustainable development defined?

There is not one recipe for sustainable development in BRICS. Emphasis on each pillar of the sustainability triple bottom-line is context-specific and follows a country's development priorities and trajectories. Each of the five countries have set their priorities in their national development plans and placed emphasis on different dimensions of sustainable development according to their own development needs. This is clear, for instance, in BNDES mission to “foster sustainable and competitive development in the Brazilian economy, generating employment while reducing social and regional inequalities.”⁸⁷ DBSA experience adds that the notion of sustainable development entails a cumulative impact and that environment, social and economic factors must be considered during investment design, in order to ensure DBSA supported programs and projects remain functional over time. In most cases the economic and social dimensions of sustainable development were more or less emphasized across all BRICS countries with more recent measures on the environmental domain.

National development banks and private commercial banks tend to adopt a dual approach to sustainable development. Similarly to the MDBs benchmarked, the first approach is a commitment to direct more funds to 'green' or 'sustainable' projects, which are economic inclusive, improve the lives of people, and address climate change and other environmental issues. These projects have an integrated view of development and consider the social, environmental, cultural and economic dimensions as priority and cross-cutting issues. As such, these projects have a 'positive spillover:' their adverse impacts are naturally low compared to their positive outcomes. The second approach is the traditional 'do no harm,' by which institutions commit to apply safeguards to minimize the impacts of projects. YES Bank brings an additional dimension to sustainable development by defining long-term business success in terms of the organization's own contribution towards economic and social development, a healthy environment and a stable society.⁸⁸ The Bombay Stock Exchange in a report defined YES Bank's sustainability approach as the means of operating in an ethically, fiscally and socially responsible manner, respecting and supporting communities and community development; protecting the environment; and delivering superior stakeholder value.⁸⁹

Although sustainable development is present across all the BRICS countries' national planning process, implementation seems to still be lagging behind. This seems to be the case of India and Russia with regards to the implementation of the environmental dimension of sustainable development. No information on sustainable development, mainly environmental sustainability, was found for the Export-Import Bank of India. Brazil and South Africa could be pointed as exceptions. In South Africa, sustainable development is a legal obligation of DBSA enshrined in the bank's strategy and guided by four principles: (i) improve quality of life of people through development of social infrastructure; (ii) support economic growth through investment in eco-infrastructure; (iii) support regional integration; (iv) promote the sustainable use of scarce resources.⁹⁰ DBSA also aligns itself directly with the SDG on sustainable energy for all, water management and global partnership. BNDES in turn lists as guidelines of its Social and Environmental Responsibility Policy the adoption of “social and environmental responsibility in the processes of planning, management and operations” and the commitment to “develop and refine methodologies and other instruments, on a permanent basis, that monitor and evaluate the socio-environmental impacts and results generated by the Bank.”⁹¹

China begins to take concrete measures to green its finance sector domestically through the People's Bank of China. In August 2016, the People's Bank of China, along with six other government agencies (Ministry of Finance, National Development and Reform Commission, Ministry of Environmental Protection, China Banking Regulatory Commission, China Securities Regulatory Commission and the China Insurance Regulatory Commission) issued the “Guidelines for Establishing the Green Financial System”, with the State Council's approval.⁹²

The guidelines refer to green finance as financial services that are provided for economic activities that support environmental improvement, climate change mitigation and efficient resource utilization. For example, they support the development of various carbon finance products, and promote the development of the markets for emission rights, energy rights, water rights, as well as other environmental rights. They seek to mobilize and incentivize greater capital investment in green structures, whilst disincentivizing investment in polluting sectors. Incentives include specialized green guarantee programs, interest subsidies for green loan-supported projects, a national-level, green development fund and support for the introduction of a PPP model in the green industry.⁹³

In the case of China's foreign aid, however, China Export-Import Bank does not have green finance guidelines. The China Export-Import Bank provided more than US\$ 141 billion in loan commitments to Latin America and the Caribbean from 2005 to 2016. These loans have gone mainly to projects with significant environmental effects like oil drilling, coal mining, hydroelectric dam construction and road building. Over half of all public-sector lending from China to Latin America, some US\$ 17.2 billion in 2017, went to the fossil-fuel industry. From 2000 to 2015 China extended US\$ 94.4 billion in loans to Africa, fueling extractive industries like oil, minerals and timber; the expansion roads and ports to get those raw materials to market; and dirty energy like large dams and power plants. Beijing is building and financing some 50 new coal plant across Africa.⁹⁴

Mainstreaming sustainability can be done by adopting a multi-stakeholder approach that involves governments, non-governmental organizations, industry and academia. An example comes from YES Bank's responsible banking approach, divided into two sections: in thought and in action. 'In thought' comprises sustainability research and development activities, focusing on research and development and ensuring the triple bottom line accountability in the bank's investments. 'In action' addresses social and environment development issues through contributions towards and engagement with Microfinance Institutions and other organizations.

How is sustainable/traditional infrastructure defined? If no formal definition exists, what is the logic behind portfolio allocation?

There is no formal definition of sustainable nor traditional infrastructure among national development banks and private banks. In 2016, the BNDES launched a Fund for Sustainable Energy, which is managed by a third-party fund manager appointed after an open public competition. The Fund was built to support the green bonds market, also known as low carbon, in the area of infrastructure. However, there is no definition or indicators of sustainability for the projects that will be supported by the Fund. DBSA approaches sustainable and traditional infrastructure through the economic (i.e. economic infrastructure and growth; regional integration; financially sustainable business), social (i.e. good governance; accountability and transparency; employee skill development, staff wellness, service delivery) and environmental dividends (i.e. environmentally oriented infrastructure programs; waste reduction) generated by its projects.⁹⁵

There are no specific targets nor criteria on sustainable versus non-sustainable infrastructure project selection and allocation. In BNDES, the majority of green financing goes towards renewable energy projects while a small portion goes towards climate change adaptation projects. For the period comprising the years of 2017 and 2018, the bank has decided to prioritize its investments in energy and transport infrastructure based on the view that these types of infrastructure investments generate more positive externalities. But BNDES is not transparent about the criteria it uses to classify its "social" and "environmental" projects. It is also not clear how "superior" are the social and environmental returns of these projects in comparison with the "traditional" ones.⁹⁶

What does sustainable infrastructure mean for different sectors? If no formal definition exists, what is the logic behind each sector?

No formal definition for sustainable infrastructure was found. Yet, experiences point to the complementary nature of social and environmental projects towards sustainable infrastructure.

In the case of BNDES, some of its investments are categorized as “green economy” (investments in renewable energy, transportation, water and sewage management, waste management, forestry, climate change adaptation, etc) or “social development” (investments in urban and regional development; health; education; public management; social responsibility; productive inclusion). For a project to be included under one of these categories, it must fall under one of the following situations: (i) be supported through one of the credit lines, programs, or environmental and social funds of the bank; (ii) projects in sectors considered as “environmental and social;” and (iii) projects that have “social and environmental objectives.”

For all the sectors where BNDES operates, the environmental and social dimension is assessed by members of collegiate bodies in charge of evaluating and approving the loans.

BNDES has established a Committee on Environmental and Social Sustainability and Territorial Development (CESSTD), an advisory body that leads the implementation and monitoring of the initiatives to strengthen the Bank's social and environmental responsibility. Its members are mid-level managers of different areas of the Bank subordinated to the Management Committee, made of representatives from the upper levels of the Bank's hierarchy. The CESSTD is also responsible for monitoring the incorporation of social, environmental and territorial dimensions into the corporate strategy and for the compliance with the guidelines and principles of the Bank's Environmental and Social Policy as well as the Regional Development Policies. The Committee is also responsible for ensuring that such policies are mainstreamed across other policies, processes, practices and procedures of BNDES.

There is little clarity about the metrics used to assess projects' environmental and social dimensions before they are selected.

According to Namita Vikas, group president and managing director climate strategy and responsible banking, YES Bank uses internal indices⁹⁷ that measure financial performance, environmental and social elements when selecting projects for loans. These indices, however, seem not to be publicly available.

In the case of traditional infrastructure, is there any reconciling element or mechanism to offset/mitigate socio-environmental impacts?

Safeguards, materiality assessment and risk management are usually employed to avoid, mitigate or compensate socio-environmental impacts of the projects.

Materiality assessment is not limited to the identification of the financial impact of economic, environmental, and social issues on the organization. It also includes identifying the economic, environmental, and social impacts that cross a threshold in affecting the ability to meet the needs of the present without compromising the needs of future generations. Therefore, a combination of internal and external factors should be used to determine whether information is material, including factors such as the organization's overall mission and competitive strategy, concerns expressed directly by stakeholders, broader social expectations, and the organization's influence on different upstream (i.e. supply chain) and downstream (i.e. customers) entities. Assessments of materiality should also take into account the basic expectations expressed in international standards and agreements with which the organization is expected to comply.

For instance, YES Bank conducts materiality assessments to gather insight on the relative importance of specific environmental, social and governance issues in all its investments. When conducting risk management, YES Bank follows the Equator Principles and IFC guidelines. Sustainability reporting follows the Global Reporting Initiative (GRI) standards and adheres to the Integrated Reporting Framework of the International Integrated Reporting Council. DBSA sustainability reporting also follows the GRI standard. In the case of risk management, one of the concrete outcomes of the BNDES Social and Environmental Responsibility Action Plan of 2015 was the inclusion of the concept of “Environmental and Social risk” into the institution's corporate policies on credit and operational risk management. The Action Plan provides that, by the end of 2017, the BNDES will have developed a “definition and quantification of sustainability goals about socio-environmental aspects in BNDES' corporate strategy.”⁹⁸

Are there any indexes/tools to measure sustainable infrastructure? What are they?

The approach to sustainability is often limited to a logic of “do no harm.” Even under this approach there are shortcomings related to organizations' capacity to identify and take action to prevent human rights violations and environmental impact during project implementation. BNDES approach comprises impact assessment, mitigation through environmental and social analysis of projects, and compensation through credit lines of social responsibility. Yet, critics point that these mechanisms operate in silos. The Bank's line for compensation and private investment, the Social Business Line, would be dissociated from the 'core' processes of risk and impact mitigation.⁹⁹

Sustainability is often assessed at both corporate and project levels based more on principles than clear and objective metrics. In 2010, BNDES developed a Social and Environmental Responsibility Policy that includes a social and environmental analysis of beneficiaries and projects. The Policy has ten guidelines related to the strategic and operational performance of the Bank, its relationship with stakeholders and its role in inducing and promoting sustainability, including (i) strengthen public policies associated with sustainability as well as social and environmental responsibility; (ii) develop and refine financial products, methodologies and other instruments on a permanent basis that incorporate social and environmental criteria and contribute particularly to regional and local sustainable development; and (iii) adopt policies that value the employees and promote their personal and professional development, emphasizing social and environmental commitment as well as the respect for human rights.¹⁰⁰

There is still little clarity about the methodologies used to verify clients and organizational commitments to corporate social responsibility standards. In BNDES, assessment of companies' adherence to CSR standards is based in self-declaration and the methodology for assessing a client's commitment to CSR is not clear. BNDES also states that its corporate planning process contemplates the initiatives aimed at internalizing social and environmental issues and monitoring the performance of the operational activities of the Bank in the social and environmental aspects. However, the indicators used in the monitoring process are not publicly available.¹⁰¹

The use of local systems is encouraged in projects implemented abroad. Whenever legislative and regulatory requirements are in place, internationally recognized processes for environment assessment are followed. When projects are funded by DBSA outside of South Africa, the legislative and regulatory requirements of the country of the project must be followed with the DBSA Environment Appraisal Framework.¹⁰² When there is no such framework in the country in which the project is being implemented, then the borrower will have to undergo the process outlined in DBSA's Environmental Framework or refer to internationally recognized processes for environment assessment such as the one set by the World Bank.

Table 5 - Common features of national development banks and private commercial banks to sustainable development and infrastructure

| | YES Bank | | | BNDES | | | DBSA | | |
|---|----------|----|--------|-------|----|--------|------|----|--------|
| | Yes | No | Partly | Yes | No | Partly | Yes | No | Partly |
| Sustainable Development (Definition) | ✓ | | | | | ✓ | ✓ | | |
| Sustainable Development Goals (Alignment) | | ✓ | | | | ✓ | ✓ | | |
| Sustainable Infrastructure (Definition) | | ✓ | | | | ✓ | | | ✓ |
| Reconciliation Methods | ✓ | | | | | | ✓ | | |
| Tools to measure sustainability | | | ✓ | | | ✓ | | | ✓ |

Source: elaborated by the authors

Lessons from research institutions and other organizations

The frameworks developed by the four research institutions (Global Reporting Initiative - GRI; Climate Bonds Initiative - CBI; Harvard University, and Getúlio Vargas Foundation Centre for Sustainability - GVces) benchmarked provide a range of criteria, indicators and other tools that can be helpful in assessing the extent to which infrastructure projects are delivering economic, social and environmental benefits to all.

Each of the institutions benchmarked uses a different approach. Harvard's Envision model is a rating system to measure the sustainability of infrastructure projects. The GRI is a framework for sustainability reporting. The GVces guidelines intend to avoid the repeated failures of large infrastructure projects in the Amazon and to guide the actors on the identified critical issues that prevent the projects from contributing to long-term development of the region. CBI is an investor-focused not-for-profit organization, promoting large-scale investments for a global low carbon and climate resilient economy.¹⁰³

Both Harvard and GVces frameworks are concerned with the “transformative” aspect of sustainable infrastructure: the correct use of the natural resources combined with a long-term positive legacy to the affected stakeholders. Incremental positive outcomes are seen as the “old practice” which has made infrastructure projects incapable of delivering on their sustainability promises.

A key aspect that these frameworks aim to capture is innovation. Harvard has performance indicators on innovation that improves the sustainable performance of projects. GVces calls for innovation in participatory governance arrangements, development of financial instruments and mechanisms for territorial planning and management.

The four institutions have laid out criteria for the definition of sector-specific projects as sustainable, as is the case of the CBI. It has set up a technical working group comprising key experts from academia, international agencies, industry and NGOs to develop sector-specific criteria for the eligibility of projects and assets as well as guidance on the tracking of eligibility status during the term of the bond.¹⁰⁴

Table 6 – Lessons from research institutions and other organizations

- Emphasis on the transformative element of sustainable development;
- Sustainable development informing all phases of the project life cycle;
- Sustainable Development Goals (SDGs) integrated across financing, operations and reporting;
- Sustainable infrastructure driven by strong social imperatives;
- Clear criteria to measure the sustainability of sector-specific projects;
- Emphasis on innovation across planning, management and governance systems;
- Emphasis on multi-stakeholder approaches to inform the design and implementation of sustainable infrastructure.

How is sustainable development defined?**Sustainable development is mainstreamed in all projects, at any phase of the project life cycle.**

Sustainability is seen as a set of environmental, economic and social conditions in which all of society has the capacity and opportunity to maintain and improve its quality of life indefinitely without degrading the quantity, quality or availability of natural resources and ecosystems.¹⁰⁵ GRI 101: Foundation 2016 Report further states that sustainable development refers to broader environmental and societal interests, rather than the interests of specific organizations.¹⁰⁶ Sustainable development impacts should therefore be considered in all types of projects, over the entire project life. CBI defines sustainability in terms of climate change adaptation and mitigation and uses green bonds as its key financial instrument to implement projects in these fields.¹⁰⁷

The relationship between sustainable development and organizational strategy is often unclear.

This includes answering how an organization contributed (or aims to contribute) towards improving economic, environmental and social conditions at the local, regional and global level. This is often most clearly articulated in the environmental arena in terms of global limits on resource use and pollution levels. However, it can also be relevant with respect to social and economic objectives such as national or international socio-economic and sustainable development goals.¹⁰⁸

Not only are the SDGs integrated in the definition of sustainable development; they are also seen as a new lens for reporting and financing. GRI and the UN Global Compact have entered into a two-year partnership to accelerate corporate reporting on SDGs. The 'Business Reporting on the SDGs' is expected to offer a mechanism for reporting based on the GRI Standards and UN Global Compact Communication on Progress. GRI Action Platform will also issue recommendation for aligning the two reporting frameworks. To ensure better integration of SDGs, GRI responded to the UN's focus on the SDGs by releasing the SDG Compass, a comprehensive document detailing how corporates can best integrate the SDGs into their operations, and showcase their commitment to upholding these goals within the context of sustainability reporting. In 2016, an analysis of 163 annual reports from the largest corporates worldwide found that roughly a third of them have already reported on the SDGs.

How is sustainable/traditional infrastructure defined? If no formal definition exists, what is the logic behind portfolio allocation?

Infrastructure projects are described as facilities built primarily to provide a public service or good rather than a commercial purpose, and from which an organization does not seek to gain direct economic benefits. According to Harvard's Envision, infrastructure projects are those that deliver the technical and physical structures required to support the local economy and contribute to the wellbeing of a community.

Typically, they are expected to last 30–70 years, depending on the type of structure and how it is maintained. Key stakeholders in an infrastructure project may include the project owners, public works officials, the project design team, federal and local regulators, elected representatives, community groups, and members of the community directly affected by the project.¹⁰⁹

Social infrastructure is key to unlocking economic growth and competitiveness. Infrastructure projects can be further defined in terms of the social and economic function they have. According to Harvard's Envision, the function of infrastructure in organized societies, especially civil infrastructure, is to provide for personal security, establish a basis for public health, and institutionalize a quality of life equal to the expectations of those it serves.¹¹⁰ That same infrastructure also provides the basis for healthy economies and heavily influences the economic competitiveness and viability of whole communities, regions, and nations. In line with this definition is GVces understanding of sustainable infrastructure as one that fosters the creation of a local economy linked to the protection of rights and environmental protection. Therefore, infrastructure projects need to understand the dynamics of the territory and avoid creating negative social and environmental impacts.¹¹¹

Recognizing that resources are finite and that development entails environmental, social, and economic impacts, sustainable infrastructure can be justified in terms of “doing the right thing.” In this regard, Harvard's Envision poses two questions: “Are we doing the project right?” and more critically “Are we doing the right project?” For instance, under Harvard's Envision, a new highway might be designed with features that contribute to sustainable performance (i.e. preserving wildlife corridors, treating and infiltrating storm water runoff, incorporating recycled materials to construction). However, if that highway contributes to significantly greater traffic congestion and urban sprawl, its rating will be lower in terms of its overall contribution to sustainability.¹¹²

Environmental, economic, and social impact on surrounding communities, from the health and wellbeing of individuals to the wellbeing of the larger social fabric as a whole, is an important dimension of sustainable infrastructure. Yet it has been overlooked. Infrastructure projects should be in line with community goals, incorporated into existing community networks, and benefit the community in the long-term. For that purpose, infrastructure owners should seek community involvement and community members affected by the project (both users and non-users of the infrastructure) should be considered important stakeholders in the decision-making process in both design and implementation stages. Yet, according to GVces, the planning and execution of large projects usually have little or no connection with local and regional demands and are not built upon a “shared view” of the future/shared prosperity.¹¹³

A multi-stakeholder approach should guide the design and implementation of sustainable infrastructure projects. This continued involvement would foster new ideas and a more holistic understanding or project's long-term potential. Yet this has been largely overlooked by the institutions benchmarked. Together with traditional sustainability actions such as reducing energy and water use, effective and collaborative leadership produces a truly sustainable project that contributes positively to the world around it. GVces advocates for the “territorialization” of the management of impacts and risks as well as to the need of valuing natural assets and socio-diversity as the foundation of the economy.¹¹⁴ Greater participation of affected communities as well as respect for the dignity, human rights and culture of indigenous peoples, afro-descendants, traditional communities, women, children and adolescents in the design and execution of projects is understood to increase its chances of success.

The quantity, source, and characteristics of the resources required to build infrastructure and keep it running as well as their impacts on the overall sustainability of the project are also central to understanding sustainable infrastructure. Resources include water and the energy used for construction, operation, and maintenance. Each of these materials is finite in its source and should be treated as an asset to be used sustainably.

Sustainable infrastructure should recognize and reward significant and relevant innovation. The Harvard's Envision recognizes that making real progress toward sustainable development requires an overhaul of existing infrastructure, replacing old components with those that improve sustainable performance.¹¹⁵ This means breaking recognized barriers to performance improvement and solutions that are scalable and/or transferrable to other infrastructure sectors by applying new and innovative approaches, methods, and technologies that raise the performance bar in one or more dimensions of sustainability.¹¹⁶

Changing conditions are accounted and budgeted for when designing sustainable infrastructure projects. A consequence of working in a non-sustainable operating environment is that many of the standard project design assumptions and variables can and will change. Such changes include the cost and availability of critical materials and supplies. Also included are the evolving conditions under which the constructed works must operate. Harvard's Envision creates incentives for identifying and incorporating these changing conditions and associated risks that may affect desired outcomes.¹¹⁷

In the case of traditional infrastructure, is there any reconciling element or mechanism to offset/mitigate socio-environmental impacts?

Sustainability reporting focuses on the goals, actions taken and resources utilized. GRI Standards require 'due diligence' in reporting to identify, prevent, mitigate and account for how an organization addresses its actual and potential negative impacts. According to GRI, sustainability reports should provide information on significant sustainability impacts (i.e. positive and negative, actual, potential, direct, indirect, short term, long term, intended, unintended) in an organization and its value chain to allow for the incorporation of sustainable goals by investors in their business practices.¹¹⁸

Restoration of natural resources and ecosystems are an explicit goal. While improving sustainable performance is an essential and immediate goal, long-term goals should be directed toward restoration where practical. This view proclaimed by Harvard's Envision is intended to reinforce the point that, to really contribute to sustainable development, projects must do more than just make incremental improvements.¹¹⁹

Are there any indexes/tools to measure sustainable infrastructure? What are they?

Sustainability reporting can encourage organizations to consider their impacts on a wide range of sustainability issues and to be more transparent about the risks and opportunities they face. GRI understands that while developments in knowledge and technology contribute to economic development, they also have the potential to help resolve the risks and threats to the sustainability of social relations, environment, and economies. New knowledge and innovations in technology, management, and public policy are challenging organizations to make new choices in the way their operations, products, services, and activities impact the earth, people, and economies. Against this view, the GRI has created a sustainability reporting framework based on the following principles and guidelines: (i) multi-stakeholder process and inclusive network; (ii) transparency as a catalyst for change; (iii) empower informed decision making; (iv) a global perspective is needed to change the world; (v) public interest should drive every decision of an organization.¹²⁰

Stakeholders' interests and the impact of the organizations activities can be measured by standards based on substantive and qualitative principles. Standards can further encourage appropriate action is taken. GRI reporting aims to eliminate application levels for the reporting organization, which is a long cumbersome process in reporting on sustainability. Instead, GRI reporting puts emphasis on identifying all stakeholders - including vulnerable groups, civil society organizations, NGO's suppliers etc. - and explaining how organizations can respond to their reasonable expectations and interests. Companies must disclose only the core indicators that apply to all companies in all sectors for better transparency. To encourage companies to report, the GRI emphasizes materiality, that is prioritizing issues that reflect the company's most significant social and environmental impacts as well as those issues most relevant to stakeholders.¹²¹

Such standards can truly innovate when they focus on value chains. This focus considers the impacts of companies in its value chain and not just within the organization alone. Even if the company does not exercise financial control over these value chains, if the issues are significant for a company's supply chain it will be incorporated in the materiality process of GRI reporting.

Quality can be more difficult to achieve when organizations' self-report their impact. While this practice ensures impartiality by GRI, it also creates uncertainty with regards to the validity of the information reported. This can be minimized by a requirement for organizations to describe procedures in place for oversight of environmental, social and economic impacts, the compensation, training and diversity of governance body.

Rating systems and checklists can be useful tools for measuring the impact of sustainable infrastructure. Harvard's Envision system rates infrastructure projects based on their overall contribution to the economic, environmental, and social aspects of sustainability. Harvard's Envision contains a checklist that helps users familiarize themselves with the sustainability aspects of infrastructure project design. The checklist can be used as a stand-alone assessment to quickly compare project alternatives or to prepare for a more detailed assessment. Its 60 performance objectives (called 'credits') cover the full dimensions of infrastructure sustainability. The model establishes a unique holistic framework for sustainable project design, not only creating sustainable performance objectives but expanding opportunities for performance improvement. Several performance objectives require calculating impacts like energy, water, materials, or emissions consumed or produced by the project in all its phases. This calculation is referred to as a life cycle assessment (LCA). While LCAs can take many forms Envision recognizes 'streamlined' or simplified LCAs that focus specifically on the calculations required for each credit. LCAs do not need to be prohibitively time consuming or expensive, rather they indicate that all phases of the project are considered in the calculations.¹²²

The impact of sustainable infrastructure can be measured through performance objectives. Harvard's Envision indicates five levels of achievement of a project based on 60 performance objectives. These 5 levels are: (i) improved: performance that is at or above conventional; (ii) enhanced: indications that superior performance is within reach; (iii) superior: sustainable performance that is noteworthy; (iv) conserving: performance that has achieved essentially zero impact; (v) restorative: performance that restores natural or social systems. The rating system may enable projects to become eligible for Envision awards.

The impact of sustainable infrastructure can also be measured by infrastructure projects' impact on territories. GVces and the IFC developed guidelines for large-scale infrastructure projects in the Amazon. These guidelines are grouped in six dimensions and aim to enhance cooperation between public policy and business practices so that a new relationship between large-scale projects and the territories emerges.

The guidelines are grouped in six dimensions: (i) territorial and land-use planning; (ii) financial instruments; (iii) institutional capacities; (iv) indigenous peoples, traditional communities and afro-descendants; (v) children, adolescents and women; and (vi) legal removal of vegetation.¹²³

Market-based tools represent an innovative approach to sustainable development. CBI's Climate in line with the idea of industry certification, the Bonds Standard is a framework that incorporates the Green Bond Principles (voluntary guidelines around disclosure, reporting and monitoring of the bond's use of proceeds) and then adds science-based sector-specific criteria to determine project eligibility. Certified projects attract investor interest and confidence as they are issued against a robust certification industry standard. The Climate Bonds Standard consists of a certification process, pre-issuance requirements, post-issuance requirements and a range of sector-specific eligibility and guidance documents. Investors are thus assured that the proceeds of these investments are being used to finance green projects.¹²⁴

Table 7 - Common features of research institutions and other organizations to sustainable development and infrastructure

| | GRI | | | CBI | | | Harvard | | | GVces | | |
|---|-----|----|--------|-----|----|--------|---------|----|--------|-------|----|--------|
| | Yes | No | Partly | Yes | No | Partly | Yes | No | Partly | Yes | No | Partly |
| Sustainable Development (Definition) | | | ✓ | | | ✓ | | | ✓ | | | ✓ |
| Sustainable Development Goals | | ✓ | | | ✓ | | | ✓ | | | ✓ | |
| Sustainable Infrastructure (Definition) | ✓ | | | | | ✓ | ✓ | | | | | ✓ |
| Reconciliation methods | ✓ | | | ✓ | | | | ✓ | | | | ✓ |
| Tools to measure sustainability | ✓ | | | | | ✓ | ✓ | | | | | ✓ |

Source: elaborated by the authors

4. Emerging Opportunities for the NDB

The main rationale for the establishment of the NDB is its potential to diversify existing financial instruments and expand partnerships to ensure that infrastructure investments go beyond the “do no harm” approach and bring about positive outcomes in economic, social and environmental terms. It is in this realization that the big push for a new global development agenda rests and it is this push that should be embodied in the understanding of sustainable infrastructure.

Sustainable infrastructure: purpose and rationale

The NDB's stated commitment to sustainable infrastructure is perhaps the most significant differentiating feature that sets it apart from existing MDBs. The NDB General Strategy (2017-2021) broadly defines sustainable infrastructure as 'infrastructure that incorporates economic, environmental and social criteria in its design, building and operation.' It adds that the inclusion of these criteria 'derives from the recognition that traditional evaluation methods fail to account for numerous factors that have a major influence on a project's viability and developmental impact in the medium and long-run.'¹²⁵

Although the NDB's strategy recognizes that sustainable infrastructure needs to 'move beyond short-term, direct economic calculations to a longer-term and broader assessment of economic, environmental and social impacts', it does not fully elucidate the reason why this is so critical.'¹²⁶

The hidden costs and risks – economic, financial, social, operational, strategic, and others - of not applying a sustainable infrastructure lens to development are high, and numerous.

The economic/financial argument

Sustainable infrastructure can help avert costly financial overruns or losses. Evidence shows that identifying ahead of time that a particular project could cause environmental degradation and/or create mass social conflict is important to maintaining project schedules and creating more certainty regarding future costs.¹²⁷ When such risk is not accounted for, the costs can be unexpectedly high, resulting in project overruns and sometimes resulting in project cancellation. In Brazil, the Belo Monte hydroelectric dam, financed by the BNDES, has been met by massive local and global resistance costing the participating firms and banks US\$ 1.4 to US\$ 5 million per day of delay due to protests.¹²⁸ According to a recent study, of 200 IADB projects analyzed, 36 were cancelled because of conflicts ranging from grassroots campaigns to widespread protests aiming to stop projects, while 162 projects faced delays, and 116 faced cost overruns.¹²⁹ As a new institution, the NDB must take precautions to avoid taking on such 'problem projects' which could cost it its reputation, and negatively impact its capacity to mobilize resources in the international markets at competitive rates or crowd-in private capital for individual projects. Investing in sustainable infrastructure could ultimately result in a better credit rating for the NDB, thereby enhancing its ability to leverage additional funds from the financial markets.

The operational argument

Sustainable infrastructure can help ensure strong operational and project performance. If infrastructure projects are designed and implemented in ways that integrate social and environmental concerns across all stages of the project cycle, they are more likely to function smoothly, and incur less operational delays or other bottlenecks. This would have a major influence on a project's viability and developmental impact in the medium and long-run, thus expanding the traditional safeguard model.¹³⁰ Moreover, safeguards have been criticized for bogging down the project cycle and turning potential borrowers away from certain MDBs, creating costly delays and project shut-downs.¹³¹ Safeguards are also limiting in that they do not necessarily unlock the transformative nature of development itself.¹³² A new approach that moves beyond do no harm's and bottom lines to unravelling the "new" in the New Development Bank could encourage governments to think about sustainable practices not as bureaucratic formalities or risks, but as actions ultimately linked to better development outcomes.^{133 | 134} Improved project selection could also reduce the overall amount of infrastructure investment need.¹³⁵

The strategic argument

Sustainable infrastructure can help streamline disparate development agendas. MDBs have an essential role to play to help move nations and regions from 'business as usual outcomes,' to 'sustainable infrastructure outcomes.'¹³⁶ This means integrating the development and climate agendas through a concerted focus on the quantity and quality of infrastructure investment. In order to achieve this goal, MDBs can demonstrate that their own investment standards deliver both development and climate benefits, while lowering overall project risk. Leading by example would encourage the development of industry standards and best practices for project finance. The NDB would also support more rapid diffusion of know-how to low-income countries, all the while demonstrating the (low) incremental investment costs of more sustainable approaches to infrastructure development.¹³⁷

Table 8 – From business as usual to sustainable infrastructure

| From business as usual outcomes | To better infrastructure outcomes |
|--|--|
| Inadequate investments in sustainable infrastructure in most countries constraining growth and development | Scaled investment in sustainable infrastructure globally, leading to improved economic development and growth |
| Inadequate provision of affordable infrastructure for the poor, creating the risk of serious reversals in the fight for development and poverty reduction | Increased infrastructure access and affordability for the poor, leading to improved development outcomes |
| High proportion of high-carbon infrastructure investments and inefficient use of infrastructure, creating danger of lock-in and irreversible climate change | Increased preference for investments in low-carbon infrastructure , mitigating climate change risks and increasing probability of a 2 degree scenario |
| Low resilience infrastructure, creating vulnerability to risks of climate change (especially among the poor) | More resilient infrastructure that accounts for climate risks and protects populations most vulnerable to climate change |

Source: Bhattacharya, Oppenheim, and Stern (2015)

Defining 'sustainable infrastructure'

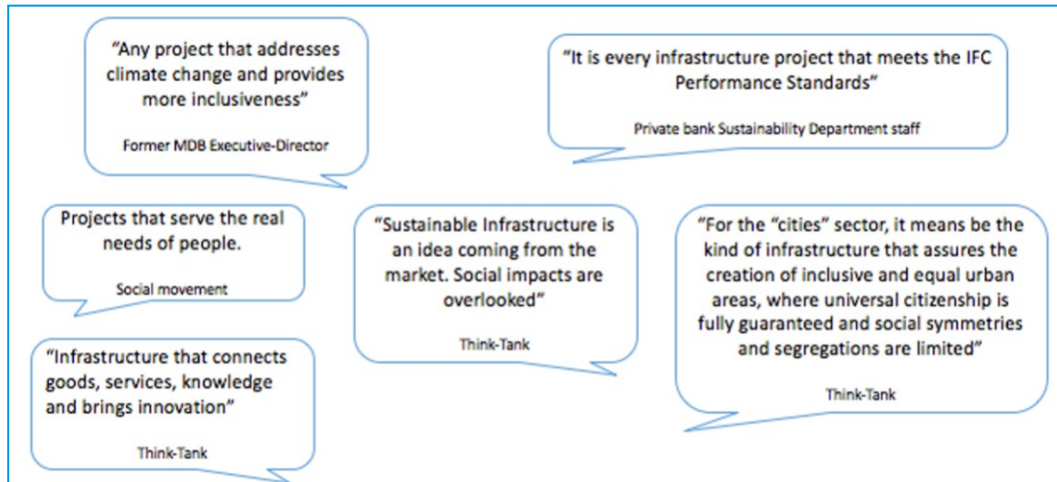
Sustainable infrastructure remains an open-ended expression.¹³⁸ A myriad of definitions has been identified in the benchmarking exercise, interviews, workshop and online consultation conducted as part of this research. **The easiest way to look for a definition of sustainable infrastructure is to build on the triple bottom-line of sustainable development that takes into account economic, social and environmental performance in addition to project financial feasibility.** Under this widely used framework, the research has shown that perceptions on sustainable infrastructure vary considerably across different groups of stakeholders. For example, sustainable infrastructure has been defined by an academic specialized in environment as the “infrastructure that is constructed and operated by minimizing carbon emissions and is resilient to extreme weather events.”¹³⁹ According to this definition, a hydropower built with a reservoir large enough to operate in extreme oscillations in the river cycle would be considered sustainable. Consulted grassroots groups, in turn, have expressed that a project will be sustainable only if it “truly serves the real needs of the peoples.”¹⁴⁰ At first glance, these conceptions are very much in line with the NDB's understanding that the bank is set to serve the “needs of the peoples of the South.” However, if unpacked, the official rhetoric of the NDB and the social movements' perspective can reveal significant divergences about the defining characteristics of the term “sustainable infrastructure.”

For some stakeholders sustainable infrastructure addresses specific dimensions of the sustainable development triple bottom line, for others it means balancing economic, environmental and social needs. Following this understanding, sustainable infrastructure could be defined as “infrastructure that promotes social and economic inclusion and that addresses climate change, reduces and mitigates carbon emissions, while also building resilience.”¹⁴¹ According to this understanding, a renewable energy project could be facilitated in an unsustainable manner (e.g. displacement of people for the installation of solar panels). At the same time, road, rails and dams could be done in a sustainable manner if the economic, environment and social dimensions of the sustainable development triple bottom line are balanced.

Building large-scale infrastructure will always have an impact on the environment and societies, therefore the objective of all infrastructure projects should be to firstly minimize impact as much as possible, through mitigation, and secondly redress. **Sustainable infrastructure should therefore not be assumed to be synonymous with green or renewable energy projects, and neither should traditional physical infrastructure be assumed to always be unsustainable.**

At the very least, however, sustainable infrastructure would necessarily have to abide by minimum, universally-agreed principles and norms on protection of human rights and the environment to avoid, mitigate or compensate negative impacts on the environment and communities.¹⁴² This includes the UN-system human rights treaties and declarations such as the Declaration on the Rights of Indigenous Peoples, the International Labor Organization (ILO) Core Conventions and norms on the environment such as the UNFCCC, the Rio +20 Declaration and the Paris Agreement. These global principles and norms should not be portrayed as “conditionalities” in the same way that economic conditionalities are imposed by MDBs, rather they should be seen as a means for borrowing countries to further advance their own nationally agreed development goals and targets. In corporate sector lending, businesses implementing sustainable infrastructure projects should be encouraged to adopt the highest standards of responsible business conduct and carry out proper human rights due diligence.

Figure 1 – What is sustainable infrastructure?



Source: interviews conducted between June-August 2017

In line with this understanding is Bhattacharya, Oppenheim and Stern's definition of sustainable infrastructure at three levels: social, economic and environmental i.e. “the infrastructure that is socially, economically, and environmentally sustainable.”¹⁴³ The authors add that **socially sustainable infrastructure** would mean infrastructure that is inclusive and respects human rights. Such infrastructure would also meet the needs of the poor by increasing access to services, supporting general poverty reduction, and reducing vulnerability to climate change risks. For example, infrastructure such as distributed renewable power generation in previously un-electrified rural areas can increase household income and improve gender equality by reducing the time needed for basic household chores. The authors further elaborate on the idea of **economically sustainable infrastructure**. This would mean infrastructure that positively impacts gross domestic product per capita and job outcomes. Further, economically sustainable infrastructure should not burden governments with debt they cannot repay or end-users with tariffs they cannot afford. Lastly, **environmentally sustainable infrastructure** would include infrastructure that establishes the foundation for a transition to a low-carbon economy, mitigates carbon emissions during construction and operation, and is resilient to climate change.

This definition foregrounds the idea of sustainable infrastructure as something that generates positive transformation. In line with how the NDB conceives of sustainable infrastructure, this definition departs from the 'do no harm' approach that focuses on avoiding, compensating or mitigating negative impacts of infrastructure projects on the environment and communities, to unleash medium and long-term social, environmental and economic transformation. Here, transformation is understood as the needs and priorities reflected in national development plans and general low carbon development and resilience policies. At the regional level, aspirations for transformation are conceived in terms of infrastructure's potential to support Africa's 'accelerated integration and growth, technological transformation, trade and development,'¹⁴⁴ articulated in documents like the African Union's “Agenda 2063”, the “Africa we want,” and largely operationalized through the Program for Infrastructure Development in Africa. At the global level, transformation is translated in the SDGs and countries' commitments to sustainable and inclusive development. In the case of SDG 9, transformative infrastructure can be interpreted as resilient infrastructure that promotes inclusive and sustainable industrialization with an aim to foster innovation.

The emphasis on each dimension of the sustainable development triple bottom line needs to be nuanced to reflect each of the BRICS countries priorities and so would, therefore, the meaning of 'positive transformation.'¹⁴⁵ For example, in China, cleaning a river is transformative if it is thought through from the beginning as an opportunity to turn coastal areas along the river into industrial zones, integrate markets and value chains (emphasis on the economic dimension). In India, road construction is transformative if it is conceived not just as traditional infrastructure project on its own but how it benefits rural communities through better public service delivery and job outcomes (emphasis on the social dimension).

Nevertheless, sustainable infrastructure would necessarily break away from the export-oriented, extractivist economic growth models that have marked the development trajectory of the BRICS. This transition can already be noticed in several countries. For instance, in India 'inclusivity' has become a major concern along with the pattern and rate of economic growth. Attention was granted to the concern on unequal and stagnant distribution of growth and participation patterns in India's 11th Five Year Plan as early as in 2007.¹⁴⁶ Nonetheless, the rate of increase has been slow and challenging for meeting human development objectives such as mortality rates, life expectancy, education, and literacy. The focus on economic growth with social inclusion remained in the subsequent five-year plan. In 2012, the Planning Commission of India published the 12th Five Year Plan – *Faster, More Inclusive and Sustainable Growth*.¹⁴⁷ According to the 12th Plan, India should move forward in a way that 'would ensure a broad-based improvement in living standards of all sections of the people through a growth process which is faster than in the past, more inclusive and also more environmentally sustainable.'¹⁴⁸ The 12th Plan also calls for more attention to be given to the problem of sustainability. It states that 'no development process can afford to neglect the environmental consequences of economic activity, or allow unsustainable depletion and deterioration of natural resources'¹⁴⁹ and several chapters are devoted to issues like water, land use, environment, forestry and wildlife. India's National Action Plan for climate change has evolved with eight component missions and the implementation of these missions is seen as an integral part of the 12th Plan.

Economic development is central to China. The 13th Five Year Plan calls for “medium to high” growth, with President Xi stating that China's annual gross domestic product growth rate should be no less than 6.5 percent over the next five years.¹⁵⁰ However, growth for growth's sake is not enough. China's economic growth model is giving way to a “new normal” phase of development that emphasizes innovation as a driver of economic development and moving the country to higher-quality growth. In this sense, “inclusive growth” remains a priority for Chinese leaders who are increasingly faced with a barrage of issues that impact the quality of life of Chinese citizens. These include a widening income gap, a growing elderly population and a deteriorating natural environment. The 13th Five Year Plan also concentrates on environmental protection through the creation of oversight mechanisms such as a water management system, emission permits and an outright ban on commercial deforestation.¹⁵¹

Based on the above, an outcome-oriented definition of sustainable infrastructure could be “any social or physical structure that responds to local needs and adjusts to countries' development trajectories and priorities; abides by minimum, universally-agreed principles on human rights and environmental protection to avoid, mitigate or compensate negative impacts; and unleashes medium and long-term social, environmental and economic transformation.”

Additional elements to understanding sustainable infrastructure are:

Systemic approach. Modern definitions of sustainable development emphasize human ecosystems as a goal. To achieve this goal, an integrated vision of development or 'systemic approach' that looks at cross-sectoral coordination and integration of environmental, social and economic concerns throughout the development process and considering all stakeholders should prevail over a siloed 'sector approach.'

In practical terms, this means that projects' risks and opportunities to both direct and indirect beneficiaries should be assessed throughout its life cycle as opposed to the initial phases only, which is the case for most MDBs when allocating loans. For instance, despite increasingly seen as a viable source of alternative clean energy, nuclear plants can become highly unsustainable in the disposal of spent fuel, leading to irreparable damage to the land and water table if not disposed of efficiently. Environment and all its components also need to be looked at closely to ensure that projects do not have negative spillovers from one system to another. For instance, solar power projects might be helping in improving provision of renewable energy by replacing coal plants, however they can damage the environment by causing soil erosion, need for land clearance (social implications) and use of harmful materials in the panels. Bioenergy production can lead to increase in harmful methane gas in the environment. Reducing the amount of CO₂ in the atmosphere and ensuring sustainable infrastructure in other dimensions of the sustainable development triple bottom line are equally important in such systemic approach.

Territorial planning. Infrastructure projects are commonly designed and implemented without prior assessment of the needs and vulnerabilities of the territory. This deficiency seriously curbs infrastructure capacity to contribute to local and regional long-term development and to leave a positive legacy. The advocated nuanced approach to sustainable infrastructure which emphasizes countries' growth priorities and trajectories should not eclipse the importance of ensuring that sustainable infrastructure is meant to translate into development at the level of the territory, where the project is located. Hence, truly sustainable infrastructure adapts not only to country characteristics, but also to local and regional development aspirations. In this sense, the NDB should take assertive steps towards development that contemplates the intricate web of needs and potentialities of local societies.¹⁵² Overcoming the exclusive logic of "national interest" is important to give visibility to local plights and to avoid supporting projects that entail human rights violations and reinforce exclusionary decision-making patterns.

Innovation. Innovation should be looked at in two ways: innovating on creating sustainable infrastructure but also innovating on making the existing infrastructure more sustainable by building on local knowledge, national experiences and international practices. Support to innovation in sustainable infrastructure projects can range from more concessions and lower rates to recommendation of better techniques and technologies to reduce carbon foot-print.

Financial sustainability. A sustainable infrastructure project should be financially viable not only for the lender but also for the borrower. Often loan allocation results in huge debts for the borrowing country, which further hamper their development process. Financial sustainability should be looked beyond project feasibility to ensure projects do not turn into white elephants and neither the lender or borrower incur in bad loans.

A working definition for “sustainable infrastructure”

Any social or physical structure that responds to local needs and adjusts to countries' development trajectories and priorities; abides by minimum, universally-agreed principles on human rights and environmental protection to avoid, mitigate or compensate negative impacts; and unleashes medium and long-term social, environmental and economic transformation. Sustainable infrastructure should further encompass: (i) systemic approach; (ii) territorial planning; (iii) innovation; and (iv) financial sustainability.

Fundamental principles for a NDB sustainable infrastructure assessment framework

As previously discussed, there is growing recognition that project-level safeguard policies on their own are insufficient to fully and effectively manage the cumulative and indirect impacts of infrastructure projects.¹⁵³ This echoes one of the premises of this project that the debate could highly benefit from expanding the traditional “do no harm” approach to include the design of incentives to ensure positive and transformative impact.

Below are the fundamental principles that should inform any framework for assessing NDB sustainable infrastructure projects. **Underlying these principles is the idea that the NDB could significantly contribute to sustainable development by creating a 'sliding scale' of sustainability based on pre-defined criteria and indicators that look into projects' transformative potential. Such criteria and indicators could be combined in a composite index to inform lending operations, project evaluation, and strategic decisions at the corporate level.** In the absence of clearly-defined principles, criteria and indicators to qualify the very notion of 'sustainable infrastructure,' it will be challenging for the NDB to designate infrastructure as sustainable and fulfill its mandate.

Pragmatism, but not conformism

A “shock therapy” towards sustainable infrastructure can do more harm than good since countries will look for sources of financing that are willing to fund, provide money even to projects that are fragile in terms of social and environmental impact assessment and mitigation - a “race to the bottom” so to speak. **The NDB should help countries in their transition to a low-carbon economy, for instance, by supporting projects that are aligned with countries' national action plans (NAPs). This would require a level of tolerance from stakeholders, as “grey zones” and blurred lines will remain as such for a period of time,** until countries and the NDB itself are able to mutually agree with how to go to the next level of sustainable development. However, climate change is a real threat and immediate action is needed if countries are serious about meeting their Paris Agreement targets. Pragmatism is thus needed not only to realistically achieve the highest standards – and not for the least common denominator – but also to ensure that projects address regional, national and local problems.

China and “clean coal”

Coal represents more than 60 percent of China's energy matrix. At the same time coal is a high polluting source of energy, the country has developed technologies to make it more efficient and less harmful to the environment. One could argue that investments towards making coal plants more efficient could be considered as investments in energy efficiency and, therefore, transformative and sustainable, while others understand that any investment in fossil fuels, even “clean” ones, retards the achievement of the Paris Agreement goals. A broad discussion is needed on the best way to help countries in the transition to a low-carbon economy.

Going beyond a conformist approach also involves the recognition that infrastructure projects are often designed and implemented in highly unequal settings in terms of **distribution of political and economic power.** The NDB should take assertive steps in rebalancing power asymmetries and develop its own tools to overcome the obstacles of civil society participation. This is important to remove the intrinsic “bias” that favors large infrastructure projects over small-scale ones. Under the idea of the 'sliding scale of sustainability,' the NDB could progressively take steps towards a rights-based approach to development which would materialize in the infrastructure sector the universal commitments to development as enshrined in the United Nations Declaration on the right to development.¹⁵⁴

Incentivize, rather than regulate

In helping countries transition to a low-carbon economy, the NDB could build on the experience of its member countries and design incentives to sustainable infrastructure projects. According to the People's Bank of China, China should enhance the “greenness” of its outward investment by supporting and encouraging domestic financial institutions, non-financial enterprises and multilateral development banks with China's active participation to strengthen environmental risk management, improve environmental information disclosure, adopt green financing instruments such as green boCnds, develop green supply chain management, and explore the use of instruments such as environment pollution liability insurance to manage environmental risks, in implementing “One Belt One Road” and other overseas investment projects.¹⁵⁵ BNDES' approach to Environmental and Social Responsibility also comprises the offering of more attractive financial conditions for projects that have sustainability components or are environmental and social-oriented in nature as seen in below.

Brazilian Development Bank's revised Operational Policy

In January 2017, the BNDES revised its Operational Policy to reflect a shift in the Bank's form of resources' allocation, from a 'vertical' to a more 'horizontal' process of selecting projects that will receive the financial support from the bank. This would enable the BNDES to prioritize investments in projects that offer better social returns, irrespective of the sector, but still considering the country's national development plans and strategies.

The new OP grouped the credit lines into two categories, which are subsequently divided into two sub-categories: (i) the incentivized line and (ii) the standard line. Each category and its respective sub-categories differ from the others essentially with respect to the financial conditions, expressed in the degree of concessionality of the loan in reference to the subsidy provided by the bank vis-à-vis the standard interest rate of the economy.

However, the sector-oriented approach is not completely abandoned. For instance, projects classified as innovation, environment, small and medium enterprises, education, health, security, social assistance and modernization of public management would be entitled to the most favorable rate, up to 80 percent of concessionality. Infrastructure projects (that eventually are not included in more privileged categories), would not be funded at a market rate.

Inclusiveness and bottom-up approach

Many conflicts associated with infrastructure projects could have been avoided or mitigated if consultation processes had been conducted in preliminary stages. The nature of conflicts is multidimensional, and more dynamic than traditionally conceived by both firms and governments.¹⁵⁶ Most conflicts materialize through the interaction of environmental, social, governance, and economic drivers over an extended period. Overall, deficient planning, reduced access to resources, lack of community benefits, and lack of adequate consultation are the most prominent conflict drivers.¹⁵⁷ The consequences of such conflicts are increasingly detrimental for companies, investors, and national governments as conflicts cause projects to fail and harm national economies.¹⁵⁸

In general, participation processes are not firmly established and civil society organizations views are not truly incorporated in the decision process. Consultation processes often results in nothing more than mere information meetings rather than real participation because of practical constraints and lack of political willingness to incorporate the recommendations from civil society stakeholders.¹⁵⁹ Representativeness is also a major issue. Participation processes frequently

incorporate only a small number of views from organizations that have good connections with the donor community.¹⁶⁰

Existing mobilizations and conflicts around infrastructure projects should not be seen as necessarily negative. Effective participatory processes ensure the fair treatment of the affected communities, environmental protection and, from the economic perspective, allow greater incorporation of the real risks to the project planning, reducing biases that contribute to the underestimation of costs and overestimation of benefits.¹⁶¹ A great body of the literature on risk assessment in big infrastructure projects seems to view CSOs participation as a guarantee of efficiency and cost reduction.¹⁶² Multiple consultations with the local population should thus be ensured throughout the project life-cycle, preferably using dialogical methodologies.

Taking the 'serve the needs of the peoples' seriously would require that the NDB supports inclusive, accessible development and focuses on projects that explicitly aim to generate positive and social environmental impacts.¹⁶³ This would further require the Bank to respond to regional, national and local development priorities by ensuring that projects reflect the public interest and involve meaningful consultation with affected communities. Channeling investments to small-scale and renewable energy projects as well as in low-carbon, resource efficient and clean technologies for climate resilience would be equally necessary.

Gender responsiveness

In its current five-year strategy, the NDB almost entirely fails to recognize gender equality as a fundamental pillar of the sustainable development track. Not only does the NDB fail to acknowledge the negative and often disproportionate impacts that infrastructure projects can generate for women, it also disregards the need to adopt a strategy that deliberately focuses on unlocking positive and transformative impacts for women.

To provide an example of how sustainable infrastructure could also be gender-responsive, roads that are constructed with sufficient lighting not only contribute to the reduction of violence against women, but also help to enhance the economic empowerment of women through improved and safer access to markets.¹⁶⁴ Whilst the former addresses the need to mitigate or compensate the negative impacts of infrastructure development, the latter is more linked to unlocking positive and transformative impacts of infrastructure development. As women continue to be subject to high levels of violence, a 'do no harm' approach cannot of course be abandoned. However, engaging women as empowered agents of change and independent stakeholders may, over time, help to reduce some of the structural forms of violence and exclusion they face. **To catalyze the economic and social empowerment of women, the NDB could encourage investments in projects that provide skills development, institutional credit and social safety nets for women in the informal sector.¹⁶⁵ The NDB could also consider investing in social infrastructure, such as education, health and sanitation, which have been proven to be instrumental in enhancing the agency of women and girls.¹⁶⁶**

At the time of writing this report, the NDB appears to have engaged with gender from the narrow perspective of human resources or organizational diversity. Even within this framework, however, the NDB has overlooked, and indeed contradicted itself, with respect to some fundamental considerations around gender equality within an organizational setting, including that there is no discrimination in hiring, promotion, or salaries. While the recognition of the need 'to eliminate barriers and to prevent discrimination on grounds of race, gender, disability, sexual orientation, ethnicity, religion, and marital or family status in the workplace and to develop a work environment that promotes diversity without compromising merit,¹⁶⁷ is welcome, the application of these principles is somewhat lacking. It is revealing that the President and all four Vice-Presidents of the

Bank are all male. **Though the Bank claims to have achieved gender equilibrium at entry-level, this still remains a distant reality for middle and senior management positions with only one woman at the fourth-highest level in the corporate hierarchy (Chief).**¹⁶⁸ This raises serious questions around the NDB's commitment to gender equality in the workplace.

Strengthen country systems

The NDB has approved its own Environmental and Social Framework (ESF) with principles and standards which govern the operations of the Bank on environment and social management. Complementing the ESF, the NDB is championing a greater use of the so-called country systems, understood as countries' own institutions, legislation and standards. For the NDB, the use of country system aims to achieve the twin goals of: (i) avoiding the misuse of project resources and the creation of negative impacts on the environment and vulnerable groups; and (ii) strengthening local frameworks and implementation capacity for the long-term benefit of the country.¹⁶⁹

The 'country system' approach has been increasingly linked to stronger ownership by local actors and more positive developmental outcomes.¹⁷⁰ This also fits the 'lean' character of the NDB and the potential absence of large staff dedicated to projects' execution oversight. **Although the NDB states that it will work with partners to address gaps in domestic systems and strengthen them as necessary to make projects' and operations compliant with the bank's internal policies, it remains unclear how the Bank can mitigate the risk of poor implementation of internal laws and standards.**

Development finance institutions, like the NDB, can operate more smoothly and better exercise their roles in inducing changes if some pre-conditions are met, primarily the legal, regulatory and institutional background against which they operate matters. Although countries proclaim adherence to the SDGs, there is a need for national authorities to clearly articulate their development strategies on sustainable infrastructure. These strategies need to address the still considerable opportunity for improvements in national policy in key infrastructure sectors, such as urban development, transport, and energy. Additionally, there is a need for stronger institutional structures for investment planning, building a pipeline of projects that take into account sustainability from the outset, and greater capacity to engage with the private sector under rights-perspective partnership arrangements.

A key challenge for the advancement of the country system approach is the fact that some developing countries are considering, or have already enacted, several changes in their legal and regulatory frameworks that are effectively reducing the levels of social and environmental protection. Brazil is an example with the ongoing disputes spurred by draft bills that would fast-track licensing processes.¹⁷¹ With uncertainty in how developing countries are going to reshape their social protection and environmental laws and policies, questions on the extent infrastructure projects will address the economic, social and environmental pillars of sustainability emerge.¹⁷² The NDB policy on technical assistance, not yet made available to the public, may offer some guidelines on the subject as to whether support will be given to strengthen the political and legal environment at the national level.

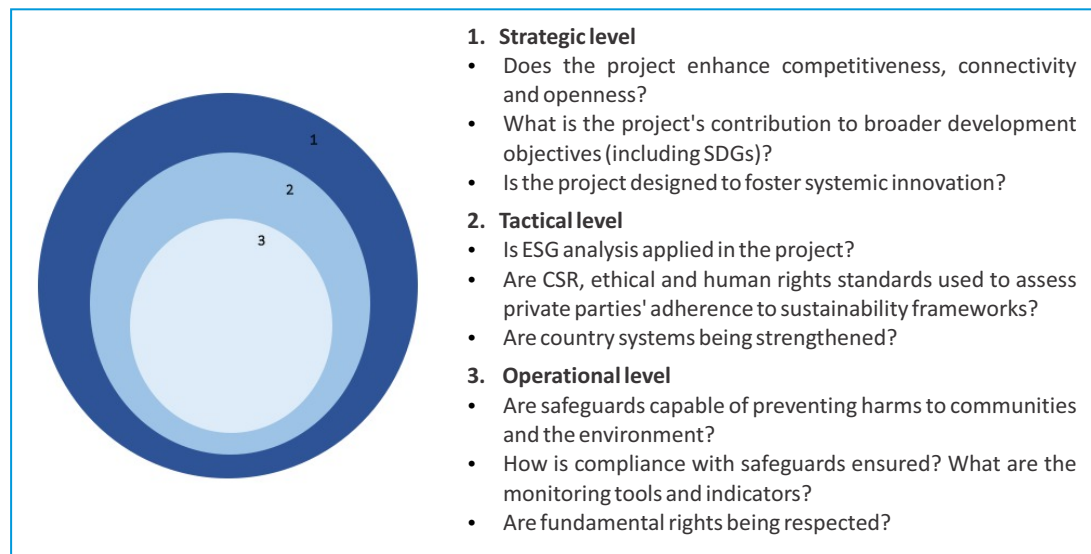
Yet, there are examples of good developments in national-level regulation. As previously discussed in this study, China has embarked in a path to embed environmental and social elements in its overseas investment policies — at least on paper. In 2012 the government approved the Green Credit Directive, which requires Chinese banks to “effectively identify, measure, monitor and control environmental and social risks associated with their credit activities” and recommends that funds be suspended or terminated where “major risks or hazards are identified.” While there remain questions on the implementation of these guidelines, they show that there is concern among the leadership about the environmental and social impact of the country's investments abroad.¹⁷³

A model for assessing the sustainability of NDB's infrastructure projects

This report proposes a model to assess the sustainability of NDB's infrastructure projects. Building on the proposed model, a set of criteria and indicators would be constructed to capture the transformative character of sustainable infrastructure projects in different dimensions. In line with the principles that embody the sliding scale of sustainability (“Pragmatism, but not conformism”) and the need to shift the debate from safeguards to incentives (“Incentivize, rather than regulate”), the proposed model lays down the basis for assessing sustainable infrastructure projects not only through the perspective of risk mitigation but also the maximization of positive effects.

The visual representation of the model consists of three concentric circles, emphasizing the non-hierarchical character of the three levels of sustainable infrastructure one against each other: the strategic, the tactical and the operational levels (Figure 2). To qualify as 'sustainable infrastructure,' a project would need to address the questions in each of the three dimensions. For instance, an energy efficiency project that succeeds in incorporating a clean technology would not be sustainable if in the course of its implementation families are relocated in a manner inconsistent with international standards on forced displacements in the context of development projects.¹⁷⁴ At best, this infrastructure project would be comparatively less sustainable than a similar project that addresses more questions in the three dimensions.

Figure 2 – A model for assessing the sustainability of NDB's infrastructure projects



Source: elaborated by the authors

At the “strategic level,” the indicators should capture the project's additional benefits, or its “positive spillover.” For example, an area suitable for flood protection can serve for other purposes (i.e.: recreational uses, or to preserve cultural heritage, natural pastureland and a habitat for wildlife).¹⁷⁵ The strategic level comprises (i) connectivity, (ii) multi-functionality, and (iii) complex system thinking.

Connectivity points to the design, planning and management of the infrastructure system in a way to strengthen it and its services, such as “re-connecting build up urban areas and improving landscape permeability.”¹⁷⁶ This is based on the assumption that if managed as an integrated system, infrastructure projects can deliver a larger range of benefits and mitigate a larger amount of negative spillovers.

Multi-functionality is a core characteristic of resilient sustainable infrastructure. Multi-functional infrastructure projects can catalyze benefits and spur social, environmental and economic development in a given geographic location.¹⁷⁷ These functions must be explicitly considered instead of being a product of chance.¹⁷⁸ This way, sustainable infrastructure projects can be considered a win-win, holistic strategy tackling several challenges within a financially viable framework.¹⁷⁹

Complex system thinking is linked to the multi-functionality dimension. It says that attention should be guided to the adaptation and transformation capacities of the projects. An area suitable for flood protection – for example – can serve for other purposes (i.e.: recreational uses, or to preserve cultural heritage, natural pastureland and a habitat for wildlife).¹⁸⁰ By considering additional benefits that an infrastructure project could provide, above its main intended purpose, multiple benefits can be derived through a single investment.¹⁸¹

The second level – or “tactical level” – describes the most efficient and effective actions for the achievement of a project's goals. The tactical level connects the NDB with the reality of the borrowing country. As a financial entity, the NDB can be enmeshed in situations of rights abuses by its clients or contribute to abuses through its own activities.¹⁸² These could include the extension of a loan to a project that affects indigenous peoples and is implemented without free, prior and informed consent, or equity investment in a company that employs forced labor.

Financial institutions have a strong responsibility in promoting sustainable development by linking the various economic agents through lending policies and direct investments.¹⁸³ According to the UN Guiding Principles on Business and Human Rights, business enterprises and government agencies should exercise their power of influence whenever they have some leverage over their partners.¹⁸⁴ Failure to do so can amount to complicity with human rights abuses and give rise to the obligation to provide remedy, for moral or legal reasons alike.

In this regard, a key role for the NDB would be to induce policy and behavioral change in stakeholders with which it maintains commercial or other kinds of relationships. This would include encouraging private and public partners to enhance their commitments and practices towards sustainability. Fostering sustainability through various economic and social agents would require that the NDB, as a profit-making entity, abides by widely accepted standards of corporate social responsibility and respect for human rights. As a development partner, the NDB could help strengthen institutional capacities and national systems of borrowing countries.

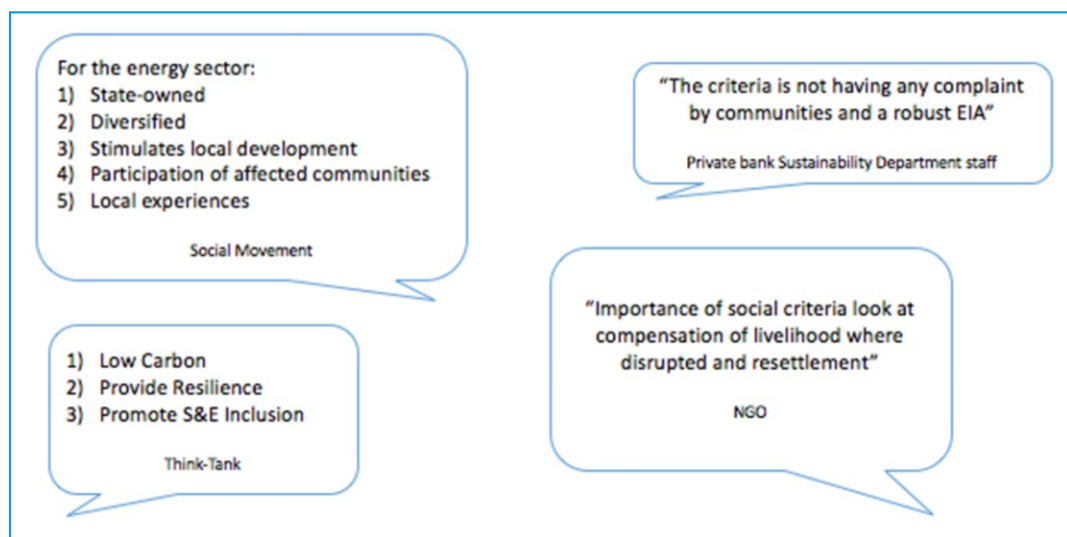
The third level – or “operational level” – comprises the application of safeguards, the monitoring of projects' capacity to meet minimum requirements, and the existence of robust policies and processes to ensure that rights are respected. Indicators and criteria at this level would capture the performance of projects on the ground and the corresponding measures taken throughout the project life-cycle to ensure that the project does no harm – understood hereto as the instrument *par excellence* that sets a minimum floor of sustainability in infrastructure projects.

5. Operationalizing Sustainable Infrastructure Assessment in the NDB

Develop sustainability criteria and a sliding scale of sustainability

Interviews conducted as part of this project revealed how the different actors attach varied importance to different criteria that would identify sustainable infrastructure. It also shows the richness of the perspectives both within organizations of a same group (NGOs, think tanks, academia, private sector) and among organizations in different groups. The research has shown that even actors that in the public debate fiercely oppose 'traditional infrastructure' (such as fossil fuels-based power generation or large-dams) have a pragmatic view about the transitioning to a world where sustainable infrastructure will become predominant, thus endorsing the 'sliding scale of sustainability' approach proposed in this report. However, it was also identified a widely shared perception that current efforts and commitments by development finance institutions are insufficient to meet the universal goals of ensuring dignity and basic rights to all and reversing climate change.

Figure 3 – What criteria could be used to assess sustainable infrastructure?



Source: interviews conducted between June-August 2017

The pragmatic but non-conformist approach (and the other principles laid out in the previous sections) should form the basis for the development of criteria to assess the sustainability of NDB-funded projects. It is fundamental that these criteria are concerned with encouraging participation and partnerships. **Through the engagement of multiple stakeholders in green infrastructure planning and design, there is a greater possibility of building trust with between these organizations and the NDB, creating greater resilient outcomes, and boosting information relative to the potential emerging costs that were not available to non-participatory projects.**

Create multi-stakeholder task forces and reference group

In the critical early years of its existence, the NDB has focused on developing its vision statement and designing strategies and policies to fulfill this vision. Yet the involvement of civil society¹⁸⁵ throughout this process has been superficial so far. Although civil society groups from the BRICS countries have on specific occasions interacted with the Bank, for example in the first two NDB General Annual Meetings, direct engagement with NDB's leadership have taken place on an ad hoc basis and most times upon the request of civil society organizations themselves.

As the NDB expands its operations and scales up its activities, civil society oversight and engagement will be needed to ensure that the Bank remains innovative, inclusive, accountable and transparent while retaining its lean structure. This is particular true when assessing the cumulative and indirect impacts of infrastructure projects as well as their potential to unleash medium and long-term social, environmental and economic transformation. As a legitimate, established recognized stakeholder in development finance and multilateral policy processes, civil society engagement with the NDB can be institutionalized to take on these and other relevant roles going forward.

The current scenario where the NDB is still in its early stages of institutionalization creates a unique opportunity to reflect upon what such engagement might look like considering the roles different civil society actors are known to take on. In its five-year Strategy, the NDB acknowledges that it has 'much to learn from the wealth of experience of multilateral and bilateral development institutions, as well as civil society and academic organizations.'¹⁸⁶ It also recognizes that 'greater openness to NGOs, and more broadly to civil society, will encourage public discussion of the Bank's activities, improving the quality of its operations and enhancing institutional credibility.'¹⁸⁷ It then goes one step further by suggesting that 'partnerships with NGOs may, for instance, help NDB and its clients broaden their knowledge on how to embed sustainability criteria in infrastructure projects, taking into account local-level perspectives and sector-based standards.'¹⁸⁸

The NDB five-year Strategy also points that the Bank 'will engage in partnerships to strengthen its capacity in research, knowledge-dissemination and technical assistance' by taking advantage of the variety of knowledge institutions and learning platforms as well as drawing on research and studies done by development partners, universities, think tanks and government agencies.¹⁸⁹ It then adds that some of these organizations may also provide feedback on the NDB's strategy, policies, procedures and operations.¹⁹⁰

A diversity of views, not necessarily mutually exclusive, are beginning to emerge regarding the role civil society could play vis-à-vis the NDB.¹⁹¹ On one end are organizations that are more critical (or perhaps skeptical) of partnering with the NDB. These organizations tend to prioritize broad-based consultations processes before and during policy and strategy development, as well as during the selection and monitoring of projects. They are normally in favor of formal mechanisms for lodging complaints and access to information requests, provided that they fill certain criteria, such as universality in access. On the other end, there are those organizations who are more open to engaging with the NDB more formally, including by operating as "service providers" to the Bank. This could, for example, involve direct financial transfers from the latter to the former.

A middle-ground position could be described as civil society playing the role of the "critical engager." Under this scenario, civil society is amenable to making itself available as a resource for the NDB, whilst at the same time also demonstrating its independence by offering critical and objective insights and analysis.

For example, this could include spearheading innovative thinking and mobilizing multi-stakeholder coalitions to drive the implementation of NDB's policies and strategy, developing knowledge platforms bringing together multiple actors of the civil society, and lodging requests for redressal in case of alleged harms linked to the NDB operations.¹⁹²

In the heart of the debate are legitimate concerns about the impartiality and independence of civil society organizations to remain critical of (inter-) governmental bodies in a global context where many countries are adopting regulations and practices that have the effect of “shrinking” the autonomous space of certain strands of civil society, while emboldening others. Such concerns are somehow reinforced by NDB's stance on interaction with certain groups of the civil society. For example, in its five-year Strategy, the NDB states that it “endeavors to build a relationship of mutual trust and cooperation with non-governmental organizations (NGOs).”¹⁹³ This statement, replete with open-ended expressions such as “mutual trust”, “cooperation” etc., is far removed from a statement that explicitly references the need to consult with potentially affected communities. Hence, uncertainties arise at this point as to how inclusive any formal structure for civil society engagement with the NDB will be.

Considering this enormous diversity, one way to proceed with the debate on the institutionalization of civil society spaces inside and outside the NDB is to take on a “functional approach” of the roles that can be assumed by organizations, social movements, grassroots, think-tanks, academia etc. based on their different but complementary roles.¹⁹⁴ **The use of 'blend modalities' should be emphasized to maximize the roles of different groups of the civil society while retaining the lean structure of the NDB. This could include, for instance, fostering collaborations between the NDB, academia and non-governmental organization.**

We are also beginning to note the emergence of various arrangements and mechanisms that could form the basis of some of this engagement in the future.¹⁹⁵ **Two of such arrangements are task forces and reference groups.** Task forces are established to address specific thematic priorities, for example gender, energy, sustainable infrastructure etc. Comprising different subject specialists and NDB staff, these task forces would, among other things, provide policy advice to the NDB. The reference group would serve as a platform for collaboration and consultation between the NDB and CSOs. It could be described as a loose network led by a mix of Southern organizations (i.e. academia, NGOs, foundations, peoples' movements, networks etc. from the BRICS countries, and possibly other developing countries, as the Bank considers expanding its membership) who are actively engaged with and interested in engaging more closely with the NDB and its future activities. It would be an external structure, not integrated within the Bank's organogram, that could further evolve towards a more structured network with a governance mechanism comprised of a secretariat and a steering committee.¹⁹⁶

An incremental approach to institutionalize the NDB-civil society space could start with the creation of task forces for the development of policy tools for the Bank - such as sustainable infrastructure criteria and campsite index - that also address a need of the civil society. With time, these task forces could deepen mutual trust, open new areas for collaboration, and evolve to more formal structures representative of the BRICS countries and led by the BRICS countries like a NDB-civil society reference group.¹⁹⁷ In the case of sustainable infrastructure assessment of NDB's projects, one of such task forces could be created to further develop sustainability criteria¹⁹⁸ and have them applied in NDB due diligence and independent assessments by civil society organizations. Research institutions in BRICS countries could act as “nodal centers” in this process.¹⁹⁹

While national dynamics cannot be ignored, attention must be given to structures that reflect a global vision, are broadly discussed with different types of organizations, and have minimum consensus among the five countries. A plan for NDB-civil society interaction could be developed to further consider and implement such arrangements.²⁰⁰ Such plan could also consider the creation of a dedicated budget line for initiatives with and/or related to NDB's own work with civil society, and the review of NDB staff job description and key performance indicators to reflect this engagement.²⁰¹

Define incentives for sustainable infrastructure projects

The role of incentives is crucial for the NDB to attract projects that are more in line with the concept of sustainable infrastructure and that can generate positive transformation throughout the project life-cycle. The greater the sustainability of the project – which could be determined either via indicators and a sliding scale of sustainability – the more generous the incentive could be. The reverse could also apply; clients that fail to integrate social and environmental considerations into their project planning, could be deemed ineligible for loans.

Financial, non-financial, external and internal incentives could be developed for this purpose: better loan conditions and differentiated services would make sustainable infrastructure projects more attractive, while simultaneously disincentivizing projects that hinder the attainment of sustainability goals.

Financial incentives: the NDB could deploy a wide range of financial incentives such as attaching better loan conditions to the effective fulfilment of sustainability criteria. Projects that are more in line with the concept of sustainable infrastructure could benefit from lower interest rates, longer grace periods and more flexible repayment terms. Special credit lines and insurance against project risks could be created.

Non-financial incentives: these could include project preparation facilities and technical assistance, for example, via NDB regional offices. Unlike other MDBs, the NDB does not have a concessional window. Normally, 'profits' from non-concessional windows are used to replenish concessional windows. The lack of a grant-making institution opens an opportunity for the NDB to either reduce loan costs (financial incentives) or employ 'profits' for other activities, such as capacity building (non-financial incentives). In this connect, the NDB could offer technical assistance to clients with outstanding performance.²⁰² An alliance between the NDB and other South-South stakeholders could thus leverage the Bank's capacity to deliver tailor-fit services to borrowers.

External incentives: As noted earlier, a key driver of conflicts in infrastructure projects is lack of proper consultations and involvement with local communities. In the context of infrastructure investments, non-participation (and non-satisfactory participation) can be attributed to at least three factors: because local communities cannot (resource dimension); because local communities do not want to (dimension of preferences, engagement, interest, effectiveness, and perceptions); and/or because local communities were not asked to (recruitment dimension).²⁰³ The NDB could tackle this issue through the development of specific incentives to projects that ensure enhanced participation and meaningful consultations with civil society and local communities. These could include: provisions in the financed projects to ensure civil society participation for strengthening substantial investments in capacity building; direct and indirect mechanisms for constant involvement in all phases of the project life-cycle; and opportunities to involve certain social groups from which one might not expect active involvement in public decision-making.

Internal incentives: These incentives could be embodied mostly in the form of staff incentives. The 2017-2021 NDB Strategy provides that staff performance indicators and incentives will be oriented towards risk evaluation, disbursement and outcomes, rather than just approvals.²⁰⁴ Linking remuneration of NDB personnel with the achievement of sustainability targets is essential to reduce the 'pressure to lend' and to incentivize an assessment of projects through criteria that go beyond the financial and economic return. Variable compensation should thus be linked not to number of projects approved, but their quality and/or transformative potential.

Revise NDB's current thinking and positioning on gender

In line with the principle of gender responsiveness, the NDB needs to urgently revise its current thinking and positioning on gender. As a first step, the Bank could consider developing a stand-alone gender policy to further women's access to and control over economic resources and promote women's employment. A multi-stakeholder policy taskforce comprising civil society from the BRICS and as well as representatives of the NDB could be set up to collectively produce such gender policy.²⁰⁵

Although the requirement for a standalone gender policy remains undisputed, the NDB must at the same time also adopt measures to encourage the mainstreaming of gender considerations across all of its operations. It is only through the adoption of a dual approach such as this will gender-responsiveness truly stand at the core of the NDB's operations. To provide an example, the NDB could mainstream gender considerations across the project lending cycle by systematically collecting disaggregated data on how projects impact women, both on an ex-ante and ex-post basis.²⁰⁶ This would ensure that project impact on women is assessed both prior to as well as upon the completion of projects. This, in turn, would ensure that **gender-responsiveness is not merely treated as an afterthought, rather it is regarded as a lens through which the NDB approaches its investments in sustainable infrastructure. In other words, for gender mainstreaming to be successful, gender must be a fundamental building block of the NDB's current understanding of sustainable infrastructure.**

Finally, at the level of human resources and diversity in the work place, a hiring policy to proactively ensure that female candidates apply for positions, particularly mid-level to senior-level ones, should be put into place as soon as possible. The policy could be embedded in concrete affirmative action, which could, for example, guarantee that a particular percentage of all positions in the NDB are occupied by qualified women.²⁰⁷

Mainstream sustainability assessment and incentive system in operations

Competitiveness in the provision of development finance highly depends on the capacity to mobilize resources at a lower cost. In the case of the NDB, 20 percent (US\$ 50 billion) of the total authorized capital (US\$ 100 billion) is divided into paid in shares (US\$ 10 billion) and callable shares (US\$ 40 billion). The remaining 80 percent is bond issued in financial markets. In the case of the World Bank, 6 percent is paid in capital while the remaining 94 percent is mobilized in the capital market or sovereign guaranteed. At the beginning of its operations, the World Bank also had 20 percent of sovereign funding. With time it was able to establish itself as an attractive lender and reduce the government to private capital ratio.²⁰⁸ This was possible through high-quality projects, sound performance and good credit rating. Raising money from local markets is beneficial for NDB and member countries, yet a costlier option compared to international markets. **Investing in sustainable infrastructure could ultimately result in a better credit rating for the NDB, thereby expanding its capacity to leverage resources from financial markets at a lower cost.**²⁰⁹

NDB Regional Offices could play a key role in ensuring a pipeline of bankable projects that meet criteria for unleashing positive and transformative impact. These criteria should work as incentives that could be embedded in project preparation and implementation as well as in project evaluation by NDB Independent Evaluation Unit.

In its Environmental and Social Framework, the NDB seeks to ensure environmental and social soundness and sustainability of projects, enable clients to identify and manage environmental and social risks and impacts in NDB's projects, improve development effectiveness and impact to increase results on the ground, and facilitate cooperation on environmental and social matters with development partners.²¹⁰ However, the pressure for the NDB to lend tends to be greater than the pressure for it to comply with sustainability criteria in the initial years of the Bank. **Therefore, when operationalizing sustainability criteria, the NDB could take a realistic and time-bound approach with phased initiatives and targets over the next five years.**²¹¹

Promote convergence and serve as a “South hub” of good practices

The 2017-2021 NDB Strategy demonstrates that it attaches significant importance to a knowledge-based approach to development that is premised on two interrelated ideas. The first is the refusal to abide by “top-down” doctrinaire and overly prescriptive concepts of economic and social development that are not grounded on developing countries' experiences, priorities and needs. The second is the recognition that the NDB will better serve its clients if it works with different actors in the development community and builds on the best available practices of “traditional” development finance institutions.

In its Environmental and Social Framework, the NDB commits to promote the convergence of its policies with those of its partnering financial institutions by way of adopting common approaches to appraisal, environmental and social management requirements, monitoring and reporting.²¹² In addition, the NDB intends to disseminate knowledge gained through its development partners.

Some concrete steps could be taken by the NDB to operationalize these commitments. **First, the NDB could address the current scenario of loose convergence on the concept of sustainable infrastructure and its defining criteria. This would require that, in addition to linking the definition of sustainable infrastructure with the achievement of the Paris Agreement and the SDGs it explains how its Strategy further advances the achievement of the 2030 Development Agenda and the Climate Change Accord.** To lead by example and generate change in the ecosystem of development finance from within, the NDB would have to mainstream its sustainability mandate at multiple levels of its operations: (i) projects/loans; (ii) technical assistance; (iii) strengthening of country systems.

Second, the NDB could build a collaborative platform for MDBs and Southern stakeholders on sustainable infrastructure. This platform would include dialogue, information-sharing, studies and other activities to enhance overall understanding on infrastructure and its contribution to sustainable development. **As a practical recommendation, the NDB could establish a Centre of Excellence on sustainable infrastructure, engaging with the academic and civil society, to ensure that latest techniques/technologies are known to the bank and can play a role in creating incentives for loan allocation.** This can guide the bank's sustainable infrastructure policy by setting up guidelines and recommendations.

Good practices

There are examples of good practices within Multilateral Development Banks of tools that help to promote the dissemination of information on sustainable infrastructure, including standards to evaluate the sustainability of projects, indicators and valuation methodologies.

- (i) IFC's Commdev: a curated repository for information on community and sustainability issues related to extractive industries, agribusiness, forestry and infrastructure sectors (such as hydropower);
- (ii) IFC's Financial Valuation Tool for Sustainability Investments: helps companies to calculate financial costs and returns of sustainable investments;
- (iii) IFC's Oil and Gas Industries Atlas: how these industries can contribute to the SDGs;
- (iv) World Bank's Energy Efficiency Indicators: development and application of energy efficiency indicators in the core strategic and funding activities of development finance institutions

6. Building Infrastructure for 21st Century Sustainable Development

The NDB's efforts to promote what it broadly labels as 'sustainable infrastructure' is both welcome and laudable. However, as an institution that is now only in its second year of operation and which is still in the process of pioneering its own unique approach to development financing, the NDB will no doubt be confronted with a number of challenges along the way. Questions persist around how exactly the NDB will define, build, measure and monitor sustainable infrastructure, how it will incentivize investments in sustainable infrastructure and whether and how it will formalize its engagement with the many stakeholders both engaged in, and directly impacted by, the development process.

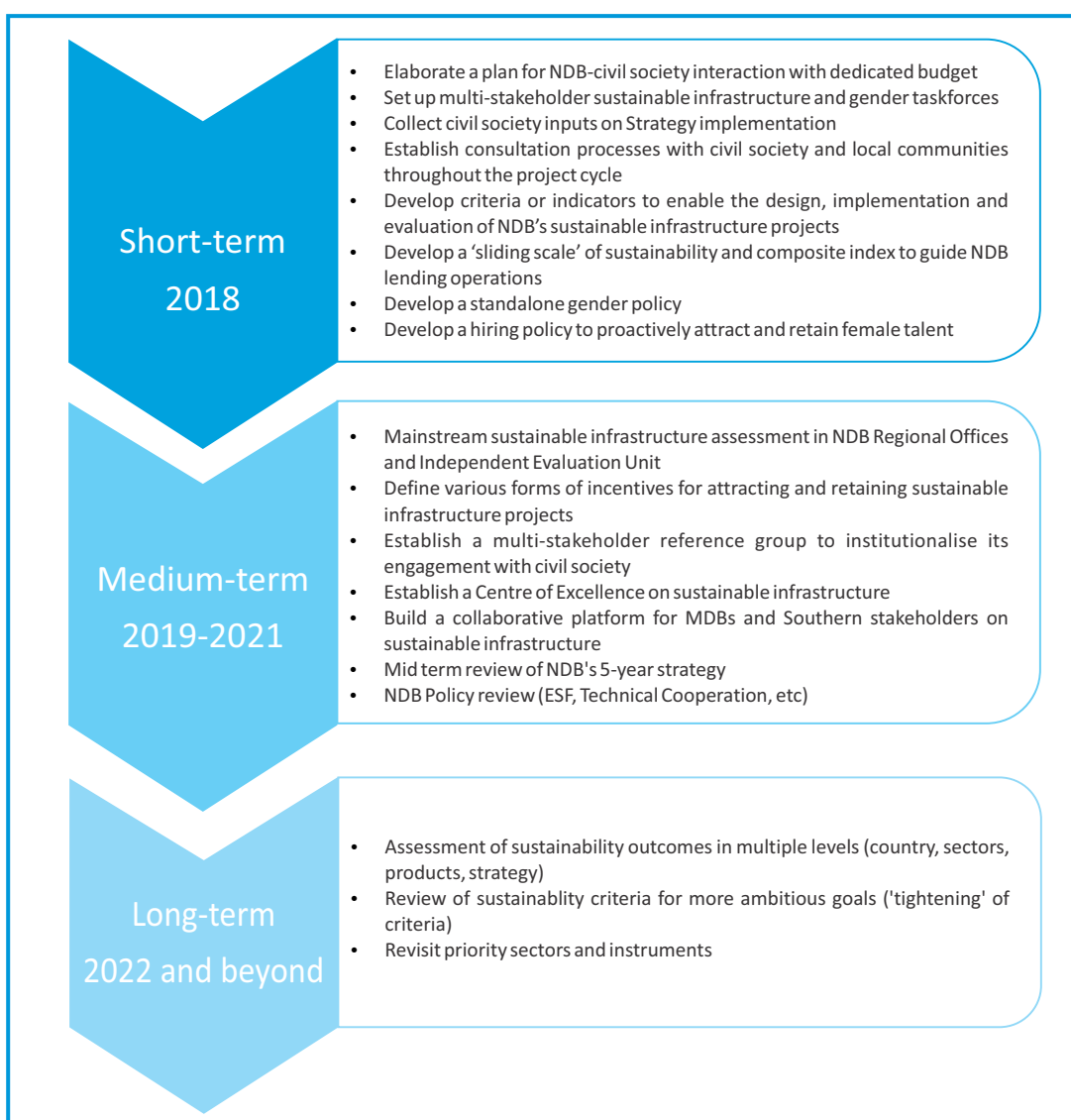
This paper sought to demonstrate that the NDB can innovate in the field of development cooperation and infrastructure financing by building on existing global norms and standards as well as adapting best practices and lessons from multilateral development institutions and organizations to its own context. To realize this goal, the NDB will need to look into the following building blocks:

- **Understanding sustainable infrastructure:** the emphasis on each pillar of the sustainable development triple bottom line needs to be nuanced to reflect each of the BRICS' national development priorities. At the very least sustainable development would need to abide with certain minimum, universally-agreed principles relating to the protection of human rights as well as the environment. Sustainable infrastructure should not be assumed to be synonymous with green or renewable energy projects, and neither should traditional, physical infrastructure be assumed to always be unsustainable.
- **Laying down the principles for sustainable development: the NDB should adopt** a pragmatic approach by focusing on projects that address local problems and assist countries in their transition to a low-carbon economy. At the same time, the NDB should build on the experiences of the BRICS countries to design financial and other forms of incentives, establish meaningful participation and consultation processes with civil society, and ensure a gender-responsive approach to sustainable infrastructure to catalyze positive and transformative development impacts. Strengthening country systems would lead to greater country ownership, and robust social and environmental management.
- **Developing a model for assessing the sustainability of NDB's infrastructure projects:** the NDB could define, build, measure and monitor sustainable infrastructure criteria, and consider the creation of a composite index to assess the sustainability of NDB funded projects. It will need to address areas that are currently overlooked by development finance institutions, such as territorial planning and the use of financial and non-financial incentives, to increase the supply and demand of sustainable infrastructure projects.

In order to guide the NDB during its strategy implementation phase, the various recommendations in this report are synthesized in the form of a road map that the NDB could follow in the short, medium and long-term (Figure 4). Building institutional structures that allow for a deeper engagement and dialogue with the civil society would be key for the NDB to deliver its mandate. A plan for NDB-civil society interaction with dedicated budget could be developed to consider and implement arrangements like multi-stakeholder task forces and a reference group. The NDB could also create concrete mechanisms to achieve its objective of serving as an incubator of strategies and applied knowledge on sustainable infrastructure and sustainable development.

The NDB has an unprecedented opportunity to unlock new funding and catalyze a bold, new approach to development, both within the BRICS as well as other developing economies of the Global South. This would represent a major shift in the way environmental and social standards are conceived in the international financial architecture, ultimately moving beyond do no harm's and bottom lines to unravelling the “new” in the New Development Bank.

Figure 4 – A proposed road map for the NDB



Endnotes

- ¹ Prof. Karin Costa Vazquez, is Executive Director of the Center for African, Latin American and Caribbean Studies (CALACS) and Assistant Dean for Global Engagement at O.P. Jindal Global University School of International Affairs, India. Prof. Vazquez is the principal researcher of the 'BRICS Sustainability Index' project between CALACS and Conectas, in partnership with the Center for BRICS Studies at Fudan University.
- ² Supriya Roychoudhury is a Senior Associate Researcher at the Center for African, Latin American and Caribbean Studies (CALACS) at O.P. Jindal Global University School of International Affairs, India.
- ³ Caio Borges is a lawyer with Conectas Human Rights in Brazil and PhD Candidate with the Faculty of Law of the University of São Paulo (USP).
- ⁴ Key messages from the project workshop "What future for development cooperation: building innovative and inclusive South-South institutions" held on August 22-23, 2017 in New Delhi, India.
- ⁵ "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within two key concepts: a. The concept of 'needs', in particular, the essential needs of the world's poor, to which overriding priority should be given; and b. The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs." Gro Harlem Brundtland, *Report of the World Commission on Environment and Development: Our Common Future*, United Nations, 1987. Available at: <http://www.un-documents.net/our-common-future.pdf> [Accessed 8 Oct. 2017].
- ⁶ Jeffrey D. Sachs, *The age of sustainable development* (New York: Columbia University press, 2015).
- ⁷ Richard Ross Shaker, "The spatial distribution of development in Europe and its underlying sustainability correlations," *Applied Geography* 63 (2015): 304-314. Available at: doi.org/10.1016/j.apgeog.2015.07.009 [Accessed 8 Oct. 2017].
- ⁸ Aaron Bielenberg, Mike Kerlin, Jeremy Oppenheim, and Melissa Roberts, *Financing change: How to mobilize private-sector financing for sustainable infrastructure*, McKinsey Center for Business and Environment (2016).
- ⁹ Amar Bhattacharya, Jeremy Oppenheim, and Nicholas Stern, "Driving sustainable development through better infrastructure: key elements of a transformational program," *Brookings Global Working Paper Series* 91 (2015). Available at: <https://www.brookings.edu/wp-content/uploads/2016/07/07-sustainable-development-infrastructure-v2.pdf> [Accessed 8 Oct. 2017].
- ¹⁰ Asit R. Mishra, "India needs Rs43 trillion of investment in infrastructure over next 5 years: Jaitley," *Livemint*, April 1, 2017. Available at: <http://www.livemint.com/Politics/gPlr87Sm2mtmYHZ3WrdxvL/India-to-grow-at-77-in-2018-emerging-markets-face-newer-c.html> [Accessed 8 Oct. 2017].
- ¹¹ The Global Commission on the Economy and Climate, *Better growth better climate: the new climate economy report*, 2014, New Climate Economy. Available at: http://static.newclimateeconomy.report/wp-content/uploads/2014/08/BetterGrowth-BetterClimate_NCE_Synthesis-Report_web.pdf [Accessed 8 Oct. 2017].
- ¹² Supriya Roychoudhury and Karin Costa Vazquez, "What is new about the BRICS-led New Development Bank?" *Devex*, May 09, 2016. Available at: <https://www.devex.com/news/what-is-new-about-the-brics-led-new-development-bank-88126> [Accessed 8 Oct. 2017].
- ¹³ Yue Zhang, "NDB planning loans for sustainable infrastructure," *China Daily USA*, July 26, 2017. Available at: http://www.chinadaily.com.cn/bizchina/2017-07/26/content_30249360.htm [Accessed 8 Oct. 2017].
- ¹⁴ Supriya Roychoudhury and Karin Costa Vazquez, "What is new about the BRICS-led New Development Bank?" *Devex*, May 09, 2016. Available at: <https://www.devex.com/news/what-is-new-about-the-brics-led-new-development-bank-88126> [Accessed 8 Oct. 2017].
- ¹⁵ Ibid.
- ¹⁶ Lean Alfred Santos, "Civil Society calls for safeguards as BRICS Bank approves first loans," *Devex*, April 18, 2016. Available at: <https://www.devex.com/news/civil-society-calls-for-safeguards-as-brics-bank-approves-first-loans88038> [Accessed 8 Oct. 2017].
- ¹⁷ Supriya Roychoudhury and Karin Costa Vazquez, "What is new about the BRICS-led New Development Bank?" *Devex*, May 09, 2016. Available at: <https://www.devex.com/news/what-is-new-about-the-brics-led-new-development-bank-88126> [Accessed 8 Oct. 2017].
- ¹⁸ Ibid.
- ¹⁹ Ibid.
- ²⁰ Ibid.
- ²¹ Indian Exim Bank and ICICI were not included in the benchmarking as the sustainable development and infrastructure experience found seemed limited. Russia's and China's Development Banks were mentioned throughout the report but not benchmarked against due to technical reasons.

- ²² “Shift to a more sustainable energy path through: (i) structural transformation of the energy sector, in particular by promoting emerging renewable technologies; (ii) energy efficiency, including the upgrade of existing power plants, overhaul of electricity grids and energy-efficient building techniques; and (iii) reduction of air, water and soil pollution in the energy sector.” Priority areas include: offshore wind energy, distributed solar energy generation, hydro-power plants and smart urban energy systems. The NDB will emphasize the adoption of innovative new technologies, such as energy storage systems, adaptable smart electricity grids and solid-waste-based energy generation. New Development Bank, *NDB's General Strategy: 2017 – 2021*, Shanghai: New Development Bank, 2017.
- ²³ Priority areas include: (i) promoting accessible transportation modes with lower emissions and greater energy efficiency; and (ii) improving transport connectivity for more balanced regional and national economic activity. New Development Bank, *NDB's General Strategy: 2017–2021*, 2017.
- ²⁴ Priority areas include: (i) irrigation infrastructure, (ii) clean drinking water supply and sanitation, and (iii) technology to enable efficient management of water resources. New Development Bank (2017). New Development Bank, *NDB's General Strategy: 2017–2021*, 2017.
- ²⁵ Priority areas include: (i) water supply, (ii) electricity supply, (iii) sanitation including solid waste management, (iv) urban transport and infrastructure, (v) associated social infrastructure and services, (vi) information technology infrastructure including e-governance solutions, and (vii) climate-resilient cities. New Development Bank, *NDB's General Strategy: 2017–2021*, 2017.
- ²⁶ NDB supports economic cooperation and integration among its member countries by financing projects that can strengthen the relationship between member countries and in which there is more than one country involved, especially trade-enabling infrastructure such as multi-modal border facilities, rail and road linkages and port infrastructure. NDB will also support projects related to infrastructure and sustainable development that contribute to technology sharing among member countries. New Development Bank, *NDB's General Strategy: 2017–2021*, 2017.
- ²⁷ Suresh P. Singh and Memory Dube, *BRICS and the world order: A beginner's guide*, CUTS Centre for International Trade, Economics & Environment and South African Institute of International Affairs (SAIIA), 2014. Available at: http://cuts-international.org/BRICS-TERN/pdf/BRICS_and_the_World_Order-A_Beginners_Guide.pdf [Accessed 8 Oct. 2017].
- ²⁸ Although arguments that China, since the late 2000s, has adopted a new approach to global governance and that this approach involves the replacing or overturning the existing international order can find no evidence or support among any type of Chinese sources or documents in the public domain.
- ²⁹ Singh and Dube, *BRICS and the world order: A beginner's guide*, 2014.
- ³⁰ Leslie Elliot Armijo and Cynthia Roberts, “The Emerging Powers and Global Governance: why the BRICS matter,” *Handbook of emerging economies* (2014): 503-520. Available at: <http://www.leslieelliottarmijo.org/wp-content/uploads/2011/02/ArmRobts-13-July-20-BRICS.pdf> [Accessed 8 Oct. 2017].
- ³¹ Singh and Dube, *BRICS and the world order: A beginner's guide*, 2014.
- ³² The Eurasia Center and Eurasian Business Coalition, *The 3rd Annual “Doing Business with BRICS” Conference*, 2015, The Embassy of South Africa and The Embassy of the Russian Federation, Washington, D.C. Available at: <https://eurasiacenter.org/publications/3rd%20Annual%20BRICS%20Conference%208-5-2015.pdf>
- ³³ Dani Rodrik, “What the World Needs from the BRICS,” *Project Syndicate*, April 10, 2013. Available at: <https://www.project-syndicate.org/commentary/the-brics-and-global-economic-leadership-by-dani-rodrik?barrier=accessreg> [Accessed 8 Oct. 2017].
- ³⁴ Ibid.
- ³⁵ Miles Kahler, “Rising powers and global governance: negotiating change in a resilient status quo,” *International Affairs*, 89, no. 3 (2013): 711–729. Available at: doi:10.1111/1468-2346.12041
- ³⁶ Patrick Bond and Ana Garcia, eds., *BRICS: An Anti-capitalist Critique* (Johannesburg: Jacana Press, 2015).
- ³⁷ Ibid.
- ³⁸ Kahler, “Rising powers and global governance: negotiating change in a resilient status quo,” 711–729.
- ³⁹ John Ikenberry, “The rise of China and the future of the West: can the liberal system survive?,” *Foreign Affairs* (2008): 23-37. Available at: <https://www.foreignaffairs.com/articles/asia/2008-01-01/rise-china-and-future-west> [Accessed 8 Oct. 2017].
- ⁴⁰ Based on research by IndiaSpend cited as Chaitanya Mallapur, “India largest recipient of World Bank loans over 70 years,” *Business Standard*, January 13, 2016. Available at: http://www.business-standard.com/article/specials/india-largest-recipient-of-world-bank-loans-over-70-years-116011300637_1.html [Accessed 8 Oct. 2017].
- ⁴¹ Ibid. The figures for Russia and South Africa are more modest, with total accumulated loans of US\$ 14.1 billion and US\$4 billion, respectively.
- ⁴² Courtney Ivins, “Inequality matters: BRICS inequalities fact sheet,” *Oxfam Policy and Practice: Climate Change and Resilience* 9, no. 1 (2013): 39-50. Available at: <http://www.eldis.org/document/A67121>.

- ⁴³ M.H. Suryanarayana, “Inclusive Growth : A Sustainable Perspective,” *Indira Gandhi Institute of Development Research*, Mumbai 400 (2013): 065, United Nations Development Programme. Available at: <http://www.undp.org/content/dam/india/docs/human-development/inclusive-growth--a-sustainable-perspective.pdf>.
- ⁴⁴ Karin Vazquez and Amanda Lucey, *Advancing South-South cooperation in education and skills development: lessons from the field*, United Nations Development Programme, 2016. Available at: [http://www.undp.org/content/dam/undp/library/development-impact/SS_Research_Publications/11872_-_Advancing_South-South_Cooperation_in_Education_08_Web_Version\(1\).pdf](http://www.undp.org/content/dam/undp/library/development-impact/SS_Research_Publications/11872_-_Advancing_South-South_Cooperation_in_Education_08_Web_Version(1).pdf).
- ⁴⁵ G20, *High Level Panel on Infrastructure Recommendations to G20 – Final Report*, Submission to the G20, 2011 Available at: https://us.boell.org/sites/default/files/downloads/HPL_Report_on_Infrastructure_10-26-2011.pdf.
- ⁴⁶ Global Infrastructure Hub, *Report to G20 Deputy Finance Ministers and Deputy Central Bank Governors on MDB Internal Incentives for Crowding-in Private Investment in Infrastructure*, ISBN 978-0-9946284-7-3, Australia: Global Infrastructure Hub, 2016. Available at: <http://www.g20.utoronto.ca/2017/2017-Germany-GIH-report-to-G20.pdf>
- ⁴⁷ World Bank, *Global financial development report 2015-2016: long-term finance*, Washington, D.C. World Bank Group, 2015. Available at: <http://documents.worldbank.org/curated/en/955811467986333727/Global-financial-development-report-2015-2016-long-term-finance>.
- ⁴⁸ World Bank, “Shortage of Long-term Finance Blunts Progress in Developing Countries,” *The World Bank Press Release*, September 14, 2015. Available at: <http://www.worldbank.org/en/news/press-release/2015/09/14/long-term-finance-shortage-post-2008-crisis-blunts-progress-in-developing-countries>.
- ⁴⁹ Devesh Kapur, “Escape from the World Bank,” *Project Syndicate*, October 16, 2015. Available at: <https://www.project-syndicate.org/commentary/emerging-economies-development-banks-by-devesh-kapur-2015-10?barrier=accessreg> [Accessed 8 Oct. 2017].
- ⁵⁰ Caio Borges, *Development for the People? The BNDES Financing and Human Right*,. Conectas Series #2, Brazil: Conectas Human Rights, 2014.
- ⁵¹ Sasha Chavkin and Michael Hudson, “New Investigation Reveals 3.4M displaced by World Bank,” *The International Consortium of Investigative Journalists (ICIJ)*, April 16, 2015. Available at: <https://www.icij.org/blog/2015/04/new-investigation-reveals-34m-displaced-world-bank>.
- ⁵² Nicholas Stern, Joseph Stiglitz, Amar Bhattacharya, and Mattia Romani, “Why the World Needs a BRICS Bank,” *Project Syndicate*, May 2, 2013. Available at: <http://www.economywatch.com/economy-business-and-finance-news/why-the-world-needs-a-brics-bank-nicholas-stern-joseph-stiglitz.02-05.html>
- ⁵³ Caio Borges, *Optimism, Skepticism, and Pragmatism: The Clashing Narratives on the Rise of New Actors in International Development Finance*, Proceedings of the 110th ASIL Annual Meeting, 2017.
- ⁵⁴ Observer Research Foundation, *Recommendations of the 4th BRICS Academic Forum*, New Delhi: Observer Research Foundation, 2012. Available at: <http://www.brics.utoronto.ca/docs/120306-academic-forum.html> [Accessed 8 Oct. 2017].
- ⁵⁵ Observer Research Foundation, *4th BRICS Academic Forum: Security Stability and Growth*, Observer Research Foundation, 2012. Available at: https://samirsaran.files.wordpress.com/2012/03/4th-brics-academic-forum_03-03-12.pdf [Accessed 8 Oct. 2017].
- ⁵⁶ Government of India, *4th BRICS Summit - Delhi Declaration*, New Delhi: Ministry of External Affairs, 2012. Available at: http://mea.gov.in/bilateral_documents.htm?dtl/19158/Fourth+BRICS+Summit++Delhi+Declaration [Accessed 8 Oct. 2017].
- ⁵⁷ Ibid.
- ⁵⁸ Government of South Africa, *5th BRICS Summit Declaration. BRICS and Africa: Partnership for Development, Integration and Industrialization*, DIRCO, 2013. Available at: <http://brics2016.gov.in/upload/files/document/5763be1c4da6e5th1.pdf> [Accessed 8 Oct. 2017].
- ⁵⁹ Government of Brazil, *6th BRICS Summit – Fortaleza Declaration*, Brasilia: Ministry of External Relations, 2014. Available at: <http://brics.itamaraty.gov.br/media2/press-releases/214-sixth-brics-summit-fortaleza-declaration> [Accessed 8 Oct. 2017].
- ⁶⁰ Talitha Berteklsmann-Scott, Cyril Prinsloo, Elizabeth Sidiropoulos, Lesley Wentworth, and Christopher Wood, *The new development bank: moving the BRICS from an acronym to an institution*, Occasional Paper 233, South African Institute of International Affairs (SAIIA), 2016. Available at: <https://goo.gl/OdpB5G>.
- ⁶¹ Studart Rogério and Luma Ramos. *The new development banks and the financing of transformation in Latin America and the Caribbean*, Manuscript submitted for publication, 2017.
- ⁶² Kathryn Hochstetler, *Infrastructure and Sustainable Development Goals in the BRICS-Led New Development Bank*, Policy Brief No. 46, Centre for International Governance Innovation, 2014. Available at: <https://www.cigionline.org/publications/infrastructure-and-sustainable-development-goals-brics-led-new-development-bank> [Accessed 8 Oct. 2017].

- ⁶³ New Development Bank note on 'Sustainable Infrastructure.' Unpublished Manuscript, 2017, New Development Bank General Strategy 2017-2021 and interviews conducted between June – September 2017; also see Laura Waisbich and Caio Borges. *The BRICS' New Development Bank at the Crossroads: Challenges for Building Development Cooperation in the 21st Century*, Unpublished manuscript, 2017; also see Kathryn Hochstetler, *Infrastructure and Sustainable Development Goals in the BRICS-Led New Development Bank*, Policy Brief No. 46, Centre for International Governance Innovation, 2014. Available at: <https://www.cigionline.org/publications/infrastructure-and-sustainable-development-goals-brics-led-new-development-bank> [Accessed 8 Oct. 2017].
- ⁶⁴ Bent Flyvbjerg, "Introduction: The Iron Law of Megaproject Management," in *The Oxford Handbook of Megaproject Management*, edited by Bent Flyvbjerg (Oxford: Oxford University Press, 2017), 1-18.
- ⁶⁵ Milton Leal, "Does anyone know anything about the new BRICS bank?" *China Dialogue*, 2016. Available at <https://www.chinadialogue.net/article/show/single/en/8568-Does-anyone-know-anything-about-the-new-%20BRICS-bank> [Accessed on October 8, 2017]
- ⁶⁶ Laura Waisbich and Caio Borges. *The BRICS' New Development Bank at the Crossroads: Challenges for Building Development Cooperation in the 21st Century*, Unpublished manuscript, 2017.
- ⁶⁷ Susan Park and Jonathan R. Strand, eds, *Global Economic Governance and the Development Practices of the Multilateral Development Banks* (New York: Routledge, 2015).
- ⁶⁸ Interviews conducted between June-August 2017
- ⁶⁹ New Development Bank, *NDB's General Strategy: 2017–2021*, Shanghai: New Development Bank, 2017.
- ⁷⁰ New Development Bank, *NDB's General Strategy: 2017–2021*, Shanghai: New Development Bank, 2017.
- ⁷¹ International Finance Corporation, *The Business Case for Sustainability*, International Finance Corporation. Available at: <http://www.ifc.org/wps/wcm/connect/9519a5004c1bc60eb534bd79803d5464/Business%2BCase%2Bfor%2BSustainability.pdf?MOD=AJPERES> [Accessed 8 Oct. 2017].
- ⁷² Asian Development Bank, *Environment operational directions, 2013–2020: Promoting transitions to green growth in Asia and the Pacific*, Asian Development Bank, 2013. Available at: <https://www.adb.org/sites/default/files/institutional-document/33869/environment-operational-directions-2013-2020.pdf> [Accessed 8 Oct. 2017].
- ⁷³ Tomás Serebrisky, *Sustainable infrastructure for competitiveness and inclusive growth*. Washington D.C: Inter-American Development Bank, 2014. Available at: <http://www20.iadb.org/intal/catalogo/PE/2014/14088en.pdf> [Accessed 8 Oct. 2017].
- ⁷⁴ Asian Infrastructure Investment Bank, *Environment and Social Framework*, Asian Infrastructure Investment Bank, 2016. Available at: https://www.aiib.org/en/policies-strategies/_download/environment-framework/20160226043633542.pdf [Accessed 8 Oct. 2017].
- ⁷⁵ Asian Infrastructure Investment Bank, "Delivering on the 2030 Agenda," *Asian Infrastructure Investment Bank*, October 17, 2016. Available at: https://www.aiib.org/en/news-events/news/2016/20161017_001.html [Accessed 8 Oct. 2017].
- ⁷⁶ Samuel Fankhauser and Nicholas Stern, "Climate Change, Development, Poverty and Economics," *Grantham Research Institute on Climate Change and the Environment*. Available at: <http://pubdocs.worldbank.org/en/728181464700790149/Nick-Stern-PAPER.pdf> [Accessed 8 Oct. 2017].
- ⁷⁷ Asian Development Bank, *Climate Change Operational Framework 2017-2030. Enhanced Actions for Low Green Gas Emissions and Climate-Resilient Development*, Philippines: Asian Development Bank, 2017. Available at: <https://www.adb.org/sites/default/files/institutional-document/358881/ccof-2017-2030.pdf> [Accessed 8 Oct. 2017].
- ⁷⁸ AIIB partners on new investments to improve energy connectivity and facilitate private equity investments Available at: https://www.aiib.org/en/news-events/news/2017/20170928_001.html [Accessed 8 Oct. 2017].
- ⁷⁹ Asian Development Bank, *Investing in Sustainable Infrastructure. Improving Lives in Asian and the Pacific*, Philippines: Asian Development Bank, 2009. Available at: <http://prdrse4all.spc.int/sites/default/files/21-investing-sustainable-infrastructure.pdf> [Accessed 8 Oct. 2017].
- ⁸⁰ International Finance Corporation, *IFC Sustainability Framework. Policy and Performance standards on Environmental and Social Sustainability. Access to Information Policy*, Washington, DC: International Finance Corporation, 2012. Available at: https://www.ifc.org/wps/wcm/connect/b9dadb004a73e7a8a273fff998895a12/IFC_Sustainability_+Framework.pdf?MOD=AJPERES [Accessed 8 Oct. 2017].
- ⁸¹ Tomás Serebrisky, *Sustainable infrastructure for competitiveness and inclusive growth*, 2014.
- ⁸² Multilateral Investment Guarantee Agency Policy on Environmental and Social Sustainability (2013) Available at: https://www.miga.org/documents/Policy_Environmental_Social_Sustainability.pdf [Accessed 8 Oct. 2017].

- ⁸³ International Financial Corporation, *Performance Standards on Environmental and Social Sustainability*, International Finance Corporation, 2012. Available at: http://www.ifc.org/wps/wcm/connect/115482804a0255db96fbffd1a5d13d27/PS_English_2012_Full-Documents.pdf?MOD=AJPERES [Accessed 8 Oct. 2017].
- ⁸⁴ Asian Development Bank, *Strategy 2020. The long-term strategic framework of the Asian Development Bank 2008-2020*, Philippines: Asian Development Bank, 2008. Available at: <https://www.adb.org/sites/default/files/institutional-document/32121/strategy2020-print.pdf> [Accessed 8 Oct. 2017].
- ⁸⁵ Asian Development Bank, *Asian Development Bank Safeguard Policy Statement 2009*. Available at: <https://www.adb.org/documents/environment-policy-asian-development-bank> [Accessed 8 Oct. 2017].
- ⁸⁶ Leonardo Amorim, Biviany Rojas Garzón, Brent Millikan, and Sílvia Zanatta, “A Política de Responsabilidade Socioambiental do BNDES: situação atual e necessidade de revisão,” in *Política Socioambiental do BNDES: Presente e Futuro*, Instituto de Estudos Socioeconômicos (2015): 121-140.
- ⁸⁷ See BNDES mission [www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/The BNDES/mission.html](http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/The%20BNDES/mission.html)
- ⁸⁸ See Yes Bank Bond Listing. <http://www.bseindia.com/downloads/ipo/201051014485Yes%20Bank.pdf>.
- ⁸⁹ Ibid.
- ⁹⁰ Development Bank of South Africa, *Make Change Happen. 2016 Integrated Annual Report*, Gauteng: Development Bank of South Africa, 2016. Available at: <https://www.dbsa.org/EN/About-Us/Publications/Annual%20Reports/DBSA%20Integrated%20Annual%20Report%202015-16.pdf> [Accessed 8 Oct. 2017].
- ⁹¹ BNDES, *Social and Environment Responsibility Policy*. Available at: https://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Social_and_Environmental_Responsibility/social_environmental_responsibility_policy.html [Accessed 8 Oct. 2017].
- ⁹² The People's Bank of China, *Guidelines for Establishing the Green Financial System*, August 31, 2016. Available at: <http://www.pbc.gov.cn/english/130721/3133045/index.html> [Accessed 8 Oct. 2017].
- ⁹³ Ibid.
- ⁹⁴ Paulina Garzón and Leila Salazar-López, “China's Other Big Export: Pollution,” *The New York Times*, July 21, 2017. Available at: <https://www.nytimes.com/2017/07/21/opinion/china-climate-pollution-global-warming.html> [Accessed 8 Oct. 2017].
- ⁹⁵ Development Bank of South Africa, *Environment Appraisal Framework. Executive Summary*, Gauteng: Development Bank of South Africa, Available at: <https://www.dbsa.org/EN/InvestorRelations/Environmental%20Appraisal%20Documents/DBSA%20Environmental%20Appraisal%20Framework%20Summary.pdf> [Accessed 8 Oct. 2017].
- ⁹⁶ BNDES, *2016 Annual Report*. BNDES, 2017. Available at: http://www.bndes.gov.br/SiteBNDES/bndes/bndes_pt/Hotsites/Relatorio_Anual_2016/assets/bndes_ra2016_web_00_completo.pdf [Accessed 8 Oct. 2017].
- ⁹⁷ Yes Bank, “YES BANK included in the FTSE4Good Emerging Index,” *Yes Bank Press Release*, 2017. Available at: <https://www.yesbank.in/media/press-releases/yes-bank-included-in-the-ftse4> [Accessed 8 Oct. 2017].
- ⁹⁸ BNDES, *Social and Environment Responsibility Policy*. Available at: https://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Social_and_Environmental_Responsibility/social_environmental_responsibility_policy.html [Accessed 8 Oct. 2017].
- ⁹⁹ Nathalie Beghin, Alessandra Cardoso, and Iara Pietricovsky, “Política socioambiental do BNDES: da saída pela tangente à busca de soluções compartilhadas,” in *Política Socioambiental do BNDES: Presente e Futuro*, Instituto de Estudos Socioeconômicos (2015): 141-155.
- ¹⁰⁰ See BNDES, *Social and Environment Responsibility Policy*.
- ¹⁰¹ BNDES, *2016 Annual Report*. BNDES, 2017.
- ¹⁰² Development Bank of South Africa, *Environment Appraisal Framework. Executive Summary*.
- ¹⁰³ Climate Bonds Initiative “The Water Criteria of the Climate Bonds Standard” Available at: https://www.climatebonds.net/files/files/Water_Criteria_of_the_ClimateBondsStandard_October2016.pdf [Accessed 8 Oct. 2017].
- ¹⁰⁴ Ibid.
- ¹⁰⁵ Global Reporting Initiative, *GRI 101: Foundation 2016*, GRI, Netherlands, 2016. Available at: <https://www.globalreporting.org/standards/media/1036/gri-101-foundation-2016.pdf> [Accessed 8 Oct. 2017].
- ¹⁰⁶ Ibid.
- ¹⁰⁷ Climate Bonds Initiative, *Climate Bonds Standard. Version 2.1*, Climate Bonds Initiative, 2017. Available at: https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_1%20-%20January_2017.pdf [Accessed 8 Oct. 2017].

- 108 Global Reporting Initiative, *Sustainability Reporting Guidelines and Oil & Gas Supplement*. Available at: <https://www.globalreporting.org/resourcelibrary/G3-1-English-Oil-and-Gas-Sector-Supplement.pdf> [Accessed 8 Oct. 2017].
- 109 Institute for Sustainable Infrastructure and Zofnass Program, *Envision. Rating System for Sustainable Infrastructure*, Washington, DC: Institute for Sustainable Infrastructure, 2015.
- 110 Ibid.
- 111 FGV EAESP, *Grandes Obras Na Amazônia: Aprendizados e Diretrizes*, FGV EAESP Centro De Estudos Em Sustentabilidade, 2016. Available at: <http://consulta-grandesobras.gvces.com.br/> [Accessed 8 Oct. 2017].
- 112 Institute for Sustainable Infrastructure and Zofnass Program, *Envision. Rating System for Sustainable Infrastructure*, 2015.
- 113 FGV EAESP, *Grandes Obras Na Amazônia: Aprendizados e Diretrizes*, FGV EAESP Centro De Estudos Em Sustentabilidade, 2016. Available at: <http://consulta-grandesobras.gvces.com.br/> [Accessed 8 Oct. 2017].
- 114 Ibid.
- 115 Institute for Sustainable Infrastructure and Zofnass Program, *Envision. Rating System for Sustainable Infrastructure*, 2015.
- 116 Ibid.
- 117 Ibid.
- 118 Global Reporting Initiative, *GRI STANDARDS*, Global Reporting Initiative. Available at: <https://www.globalreporting.org/standards/gri-standards-download-center/?g=a039c365-4a72-4198-a5a4-c407a1447bf2> [Accessed 8 Oct. 2017].
- 119 Institute for Sustainable Infrastructure and Zofnass Program, *Envision. Rating System for Sustainable Infrastructure*, 2015.
- 120 Global Reporting Initiative, *Sustainability Reporting Guidelines. Version 3.1*, Global Reporting Initiative, 2011. Available at: <https://www.globalreporting.org/resourcelibrary/G3.1-Guidelines-Incl-Technical-Protocol.pdf> [Accessed 8 Oct. 2017].
- 121 Ibid.
- 122 Institute for Sustainable Infrastructure and Zofnass Program, *Envision. Rating System for Sustainable Infrastructure*, 2015.
- 123 Ibid.
- 124 Climate Bonds Initiative, *Climate Bonds Standard. Version 2.0*, Climate Bonds Initiative, 2015. Available at: [https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_0%20-%202Dec2015%20\(1\).pdf](https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_0%20-%202Dec2015%20(1).pdf) [Accessed 8 Oct. 2017].
- 125 New Development Bank, *NDB's General Strategy: 2017–2021*, Shanghai: New Development Bank, 2017.
- 126 Ibid.
- 127 Graham Watkins, Sven-Uwe Mueller, Maria Cecilia Ramirez, Hendrik Meller, Ioannis Blatsos, Julia Carvalho Fernandes de Oliveira, Cristina Contreras Casado, Andreas Georgoulis, Nikos Georgoulis, and Judith Rodriguez. *Lessons from Four Decades of Infrastructure Project-Related Conflicts in Latin America and the Caribbean*. Interamerican Development Bank, 2017. Available at: <https://publications.iadb.org/handle/11319/8502> [Accessed 8 Oct. 2017].
- 128 Stephen Nielson and Mario Sergio Lima, "Protests over Brazil Hydro Drives Delay and Boosts Costs," *Bloomberg*, June 6, 2013.
- 129 Graham Watkins, Sven-Uwe Mueller, Maria Cecilia Ramirez, Hendrik Meller, Ioannis Blatsos, Julia Carvalho Fernandes de Oliveira, Cristina Contreras Casado, Andreas Georgoulis, Nikos Georgoulis, and Judith Rodriguez, *Lessons from Four Decades of Infrastructure Project-Related Conflicts in Latin America and the Caribbean*, Interamerican Development Bank, 2017. Available at: <https://publications.iadb.org/handle/11319/8502> [Accessed 8 Oct. 2017].
- 130 Fei Yuan and Kevin P. Gallagher, "Greening Development Finance in the Americas," *Global Economic Governance Initiative* (Boston: Boston University, 2015).
- 131 According to Richard Humphrey, environmental and social standards make it "...extremely difficult for borrowers and even staff to fully understand. Requirements often include time consuming, lengthy studies to be undertaken by third-party experts (usually at the government's cost), lengthy consultations with affected parties (sometimes including unelected non-governmental organizations), extensive mitigation measures, and lengthy mandatory prior public disclosure and comment periods during which time the project cannot move ahead. These requirements supersede whatever national laws may be in place in the borrowing country—a particularly troubling point of principle for many borrowing countries, beyond the practical impacts of safeguards." Christopher Humphrey, "Infrastructure Finance in the Developing World: Challenges and Opportunities for Multilateral Development Bank in 21st Century Infrastructure Finance," *The Global Green Growth Institute (GGGI) and the Intergovernmental Group of Twenty-Four on Monetary Affairs and Development (G-24)*, Working Paper Series, Washington (2015).

- ¹³² Karin Vazquez, Supriya Roychoudhury, and Caio Borges, “New Development Bank is BRICS’ best card,” *Financial Times*, September 5, 2017. Available at: <https://www.ft.com/content/cc7c7ee6-918b-11e7-a9e6-11d2f0ebb7f0?mhq5j=e7> [Accessed 8 Oct. 2017].
- ¹³³ Supriya Roychoudhury and Karin Costa Vazquez, “What is new about the BRICS-led New Development Bank?,” 2016.
- ¹³⁴ According to Richard Humphrey, environmental and social standards make it “...extremely difficult for borrowers and even staff to fully understand. Requirements often include time consuming, lengthy studies to be undertaken by third-party experts (usually at the government’s cost), lengthy consultations with affected parties (sometimes including unelected non-governmental organizations), extensive mitigation measures, and lengthy mandatory prior public disclosure and comment periods during which time the project cannot move ahead. These requirements supersede whatever national laws may be in place in the borrowing country—a particularly troubling point of principle for many borrowing countries, beyond the practical impacts of safeguards.” Christopher Humphrey, “Infrastructure Finance in the Developing World: Challenges and Opportunities for Multilateral Development Bank in 21st Century Infrastructure Finance,” *The Global Green Growth Institute (GGGI) and the Intergovernmental Group of Twenty-Four on Monetary Affairs and Development (G-24)*, Working Paper Series, Washington (2015).
- ¹³⁵ Hans-Peter Egler and Raul Frazao, *Sustainable Infrastructure and Finance*, Working Paper Series 16/09, UNEP Inquiry and Global Infrastructure Basel (GIB), 2016: 22. Available at: http://unepinquiry.org/wp-content/uploads/2016/06/Sustainable_Infrastructure_and_Finance.pdf
- ¹³⁶ Fei Yuan and Kevin P. Gallagher, “Greening Development Finance in the Americas,” 2015.
- ¹³⁷ Amar Bhattacharya, Jeremy Oppenheim, and Nicholas Stern, “Driving sustainable development through better infrastructure: key elements of a transformational program.” *Brookings Global Working Paper Series* 91 (2015).
- ¹³⁸ Refer to the benchmarking exercise in Chapter 3 of this report.
- ¹³⁹ Interview conducted between June-August 2017.
- ¹⁴⁰ Interview conducted between June-August 2017.
- ¹⁴¹ Online consultation conducted in September 2017.
- ¹⁴² Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- ¹⁴³ Amar Bhattacharya, Jeremy Oppenheim, and Nicholas Stern, “Driving sustainable development through better infrastructure: key elements of a transformational program,” 2015.
- ¹⁴⁴ African Union, *Agenda 2063: The Africa We Want*, African Union Commission (2015). Available at: http://www.agenda2063.au.int/en/sites/default/files/agenda2063_popular_version_05092014_EN.pdf.
- ¹⁴⁵ Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- ¹⁴⁶ Government of India, Planning Commission, *Eleventh Five Year Plan (2007-2012) Inclusive Growth*, 2011 Volume I, New Delhi: Sage Publications. Available at: http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v1/11th_vol1.pdf
- ¹⁴⁷ Government of India, Planning Commission, *Twelfth Five Year Plan (2012-2016) Faster, more inclusive and sustainable growth*, 2012 Volume I, New Delhi: Sage Publications. Available at: http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v1/11th_vol1.pdf
- ¹⁴⁸ Government of India, Planning Commission, *Eleventh Five Year Plan (2007-2012) Inclusive Growth*, 2011 Volume I, New Delhi: Sage Publications. Available at: http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v1/11th_vol1.pdf
- ¹⁴⁹ Ibid.
- ¹⁵⁰ James McGregor, “The 13th Five-Year Plan: Xi Jinping Reiterates his Vision for China,” *APCO Forum*, November 13, 2015. Available at: <http://www.apcoworldwide.com/blog/detail/apcoforum/2015/11/13/the-13th-five-year-plan-xi-jinping-reiterates-his-vision-for-china> [Accessed 8 Oct. 2017].
- ¹⁵¹ Ibid.
- ¹⁵² Hector Gomez Ang and Mario Monzoni, *Large-scale projects in the Amazon: lessons learned and guidelines* (São Paulo: FGV EAESP, 2017)
- ¹⁵³ Tomas Serebrisky, *Sustainable infrastructure for competitiveness and inclusive growth* (Washington DC: Interamerican Development Bank, 2014).
- ¹⁵⁴ Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- ¹⁵⁵ The People’s Bank of China, *Guidelines for Establishing the Green Financial System*, August 31, 2016. Available at: <http://www.pbc.gov.cn/english/130721/3133045/index.html>.

- 156 Graham Watkins, Sven-Uwe Mueller, Maria Cecilia Ramirez, Hendrik Meller, Ioannis Blatsos, Julia Carvalho Fernandes de Oliveira, Cristina Contreras Casado, Andreas Georgoulas, Nikos Georgoulas, and Judith Rodriguez. *Lessons from Four Decades of Infrastructure Project-Related Conflicts in Latin America and the Caribbean*. Interamerican Development Bank, 2017. Available at: <https://publications.iadb.org/handle/11319/8502> [Accessed 8 Oct. 2017].
- 157 Ibid.
- 158 Ibid.
- 159 Sara Dewachter and Nadia Molenares, "Who takes a seat at the pro-poor table?," *Latin American Research Review* 46, no. 3 (2011): 112-132.
- 160 Ibid.
- 161 Rebecca Neaera Abers, "Conflitos, mobilizações e participação institucionalizada: a relação entre a sociedade civil e a construção de grandes obras de infraestrutura," *Instituto de Pesquisa Econômica*, Rio de Janeiro (2016): 16-17.
- 162 Abers, "Conflitos, mobilizações e participação institucionalizada: a relação entre a sociedade civil e a construção de grandes obras de infraestrutura." 16-17.
- 163 *A civil society perspective for truly sustainable infrastructure and transformative development cooperation, Recommendations for the BRICS New Development Bank Strategy*. Available at: [http://www.conectas.org/arquivos/editor/files/Folheto%20The%20BRICS%20Sustainable\(2\).pdf](http://www.conectas.org/arquivos/editor/files/Folheto%20The%20BRICS%20Sustainable(2).pdf)
- 164 Key messages from the project workshop "What future for development cooperation: building innovative and inclusive South-South institutions" held on August 22-23, 2017 in New Delhi, India.
- 165 Workshop "Asian Approaches to Development Cooperation: Focus on Women and Girls' Empowerment" (13-14 September, 2017, Ulaambaatar).
- 166 Anna Robinson-Pant, *Promoting Health and Literacy for Women's Empowerment*, UNESCO, Germany: UNESCO Institute for Lifelong Learning, 2016. Available at: <http://unesdoc.unesco.org/images/0024/002456/245698e.pdf>.
- 167 New Development Bank, *Diversity Policy*, 2017.
- 168 Interviews conducted between June-August 2017. In addition to the President and four Vice-Presidents, NDB career structure comprises the following positions: Director-General, Chief, Principal Specialist, Senior Specialist, Professional, Young Professional, Junior Professional and Analyst.
- 169 New Development Bank, *NDB's General Strategy: 2017–2021*, 16
- 170 OECD, *Paris Declaration on Development Aid Effectiveness*, Organization for Economic Cooperation and Development, 2005; See also: Asian Development Bank, *Promoting the Use of Country Systems in ADB's Operations: A Systematic Approach*, Institutional Document, Asian Development Bank, 2015.
- 171 Instituto Socioambiental, "Nova legislação do licenciamento ambiental vai instaurar guerra fiscal", diz advogado do ISA," *Instituto Socioambiental*, December 16, 2016. Available at: <https://www.socioambiental.org/pt-br/noticias-socioambientais/novo-legislacao-do-licenciamento-ambiental-vai-instaurar-guerra-fiscal-diz-advogado-do-isa>.
- 172 Lean Alfred Santos, "Civil Society calls for safeguards as BRICS Bank approves first loans," *Devex*, April 18, 2016. Available at: <https://www.devex.com/news/civil-society-calls-for-safeguards-as-brics-bank-approves-first-loans88038> [Accessed 8 Oct. 2017]. Also see Laura Waisbich and Caio Borges. *The BRICS' New Development Bank at the Crossroads: Challenges for Building Development Cooperation in the 21st Century*, Unpublished manuscript, 2017.
- 173 Garzón and Salazar-López, "China's Other Big Export: Pollution," July 21, 2017.
- 174 Basic Principles and Guidelines on Development-based Evictions and Displacement. Annex 1 of the report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living A/HRC/4/18. Available at: http://www.ohchr.org/Documents/Issues/Housing/Guidelines_en.pdf.
- 175 European Commission, *The multifunctionality of Green Infrastructure*, 2012, In-depth Reports, Science for Environment Policy. Available at: http://ec.europa.eu/environment/nature/ecosystems/docs/Green_Infrastructure.pdf
- 176 European Environment Agency, *Green Infrastructure and territorial cohesion. The concept of green infrastructure and its integration into policies using monitoring systems*. 2011, EEA Technical Report No. 18/2011. Luxembourg: Publication Office of the European Union. In Paulina Schiappacasse and Bernhard Muller, "Planning Green Infrastructure as a Source of Urban and Regional Resilience – Towards Institutional Challenges," *Urbani izziv* 26 (2015): S13-S24.
- 177 Paulina Schiappacasse and Bernhard Muller, "Planning Green Infrastructure as a Source of Urban and Regional Resilience – Towards Institutional Challenges," *Urbani izziv* 26 (2015): S13-S24.
- 178 Rieke Hansen and Stephan Pauleit, "From multifunctionality to Multiple Ecosystem Services? A Conceptual Framework for Multifunctionality in Green Infrastructure Planning for Urban areas," *Ambio* 43, no.4 (2014): 516–529.

- ¹⁷⁹ Schiappacasse and Muller, “Planning Green Infrastructure as a Source of Urban and Regional Resilience – Towards Institutional Challenges,” S16
- ¹⁸⁰ European Commission, *The multifunctionality of Green Infrastructure*, 2012, In-depth Reports, Science for Environment Policy. Available at: http://ec.europa.eu/environment/nature/ecosystems/docs/Green_Infrastructure.pdf. In Paulina Schiappacasse and Bernhard Muller, “Planning Green Infrastructure as a Source of Urban and Regional Resilience – Towards Institutional Challenges,” *Urbani izziv* 26 (2015): S13-S24.
- ¹⁸¹ Hans-Peter Egler and Raul Frazao, *Sustainable Infrastructure and Finance*, Working Paper Series 16/09, UNEP Inquiry and Global Infrastructure Basel (GIB), 2016: 23.
- ¹⁸² United Nations Human Rights Office of the High Commissioner, *The corporate responsibility to respect human rights: An interpretive guide*, HR/PUB/12/02, New York: United Nations, 2012. Available at: http://www.ohchr.org/Documents/Publications/HR.PUB.12.2_En.pdf.
- ¹⁸³ Response to research questions, of August 8th, 2017.
- ¹⁸⁴ United Nations Human Rights Office of the High Commissioner, *Guiding Principles on Business and Human Rights – Implementing the United Nations “Protect, Respect and Remedy” Framework*, HR/PUB/11/04, New York: United Nations, 2011. Available at: http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf.
- ¹⁸⁵ With no universally agreed definition of civil society, interpretations of what it means tend to vary across different contexts. According to CIVICUS, the World Alliance for Citizen Participation, civil society includes ‘the arena, outside of the family, the state, and the market, which is created by individual and collective actions, organizations and institutions to advance shared interests.’ It builds on a historical understanding of civil society as an entity that is autonomous from the state and the market. Such a definition naturally lends itself to the inclusion of a diverse range of actors including NGOs, civil society networks, trade unions, faith-based networks, professional associations, academic organizations, think tanks and philanthropic foundations.
- ¹⁸⁶ New Development Bank, *NDB’s General Strategy: 2017 – 2021*
- ¹⁸⁷ Ibid.
- ¹⁸⁸ Ibid.
- ¹⁸⁹ Ibid.
- ¹⁹⁰ Ibid.
- ¹⁹¹ The research team collected views from discussions, interviews and online consultation with groups formed by social movements and grassroots, philanthropic foundations, academic organizations and think-tanks actively following discussions related to the NDB.
- ¹⁹² These are not rigid categories, and there will of course be a degree of overlap and complementarity across all of these. We provide this typology by way of demonstrating the broad spectrum across which civil society can situate itself with regards to its engagement with the NDB. Also, the space that each organization occupies in the spectrum has something of a “subjective” character. A group may see itself as independent and “critical” even if it has formal ties with a development finance institution, such as through the development of pilot projects, participation in councils etc.
- ¹⁹³ New Development Bank, *NDB’s General Strategy: 2017 – 2021*
- ¹⁹⁴ Some of these roles were described in the background paper prepared by the research team for the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India: (i) ensuring NDB project goals are delivered, including through consultations, project review mechanisms; (ii) ensuring NDB projects are inclusive of the society, including through the identification of project beneficiaries by gender and ethnicity; creation of project steering committee with interested stakeholders, and securing grassroots access to the Bank; (iii) developing NDB staff, subnational authorities, local civil society and other relevant actors’ capacity on specific issues; (iv) creating and disseminating knowledge, including through specialized research (shadow reporting, benchmarking) and communities of practice; (v) keeping the NDB informed of any relevant meetings that civil society groups are engaging and/or organizing; (vi) disseminating information shared by the NDB across the civil society.
- ¹⁹⁵ Some of these arrangements were described in the background paper prepared by the research team for the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India. Options range from more formal structures like an institute, advisory committees and reference groups to less formal structures like issue-specific task forces, bilateral partnerships and broad consultations.
- ¹⁹⁶ Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- ¹⁹⁷ Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.

- 198 See next session.
- 199 Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- 200 Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- 201 Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- 202 Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- 203 Sidney Verba, Kay L. Schlozman, and Henry E. Brady, *Voice and Equality: Civic Voluntarism in American Politics* (Cambridge: Harvard University Press, 1995).
- 204 New Development Bank, *NDB's General Strategy: 2017–2021*
- 205 Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- 206 Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- 207 Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- 208 Interview conducted between June–August 2017
- 209 According to Richard Humphrey, environmental and social standards make it “...extremely difficult for borrowers and even staff to fully understand. Requirements often include time consuming, lengthy studies to be undertaken by third-party experts (usually at the government's cost), lengthy consultations with affected parties (sometimes including unelected non-governmental organizations), extensive mitigation measures, and lengthy mandatory prior public disclosure and comment periods during which time the project cannot move ahead. These requirements supersede whatever national laws may be in place in the borrowing country—a particularly troubling point of principle for many borrowing countries, beyond the practical impacts of safeguards.” Christopher Humphrey, “Infrastructure Finance in the Developing World: Challenges and Opportunities for Multilateral Development Bank in 21st Century Infrastructure Finance,” *The Global Green Growth Institute (GGGI) and the Intergovernmental Group of Twenty-Four on Monetary Affairs and Development (G-24)*, Working Paper Series, Washington (2015).
- 210 New Development Bank, *Environmental and Social Framework*, New Development Bank, 2017.
- 211 Key messages from the project workshop “What future for development cooperation: building innovative and inclusive South-South institutions” held on August 22-23, 2017 in New Delhi, India.
- 212 New Development Bank, *Environmental and Social Framework*, New Development Bank, 2017.

References

- “About Us.” *Global Environment Facility*. <https://www.thegef.org/about-us>
- “Create Business Value – through sustainability investments.” *International Finance Corporation*. <https://www.fvtool.com/>
- “Energy. Sustainable, Reliable and Diversified Energy for Latin American and The Caribbean – Sector Framework.” *Interamerican Development Bank*. <http://www.iadb.org/en/sector/energy/sector-framework,18390.html>
- “Focus on sustainability sectors.” *Yes Bank*. <https://www.yesbank.in/banking-initiatives/responsible-banking/sustainable-finance/focus-on-sustainability-sectors>
- “GRI Standards.” *Global Reporting Initiative*. <https://www.globalreporting.org/standards/gri-standards-download-center/?g=a039c365-4a72-4198-a5a4-c407a1447bf2>
- “Hydro advisory.” *International Finance Corporation*. http://www.ifc.org/wps/wcm/connect/Industry_EXT_Content/IFC_External_Corporate_Site/Hydro+Advisory
- “IFC’s priorities in infrastructure - Transportation.” *International Finance Corporation*. http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/infrastructure/priorities/transportation
- “IFC’s priorities in infrastructure – Cities.” *International Finance Corporation*. http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/infrastructure/priorities/cities
- “IFC’s priorities in infrastructure – Water.” *International Finance Corporation*. http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/infrastructure/priorities/water+and+municipal+infrastructure
- “IFC’s priorities in infrastructure.” *International Finance Corporation*. http://www.ifc.org/wps/wcm/connect/Industry_EXT_Content/IFC_External_Corporate_Site/Infrastructure/Priorities/
- “India: Amaravati Sustainable Capital City Development Project.” *Asian Infrastructure Investment Bank*. <https://www.aiib.org/en/projects/proposed/2017/india-amaravati.html>
- “Mission and Vision.” *2030 Water Resources Group - International Finance Corporation*. <http://www.2030wrg.org/who-we-are/mission-vision/>
- “Opening Address, Meeting of the AIIB Board of Governors President Jin Lique.” *Asian Infrastructure Investment Bank*, June 16, 2017. https://www.aiib.org/en/news-events/news/2017/20170616_002.html
- “Project Process.” *Asian Infrastructure Investment Bank*. <https://www.aiib.org/en/projects/process/index.html>
- “Sector framework – Transport.” *Interamerican Development Bank*. <http://www.iadb.org/en/sector/transport/sector-framework,18406.html>
- “Strategies-AIIB Strategic Programming.” *Asian Infrastructure Investment Bank*. <https://www.aiib.org/en/policies-strategies/strategies/>
- “Supporting sustainability.” *International Finance Corporation*. http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/agribusiness/priorities/supporting+sustainability/agri_priorities_sustainability
- “Sustainable development goals.” *United Nations Development Programme*. <http://www.undp.org/content/undp/en/home/sustainable-development-goals.html>
- “Sustainable infrastructure.” *International Finance Corporation*. http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Company-Resources/Sustainable-Infra/
- *A civil society perspective for truly sustainable infrastructure and transformative development cooperation. Recommendations for the BRICS New Development Bank Strategy.* [http://www.conectas.org/arquivos/editor/files/Folheto%20The%20BRICS%20Sustainable\(2\).pdf](http://www.conectas.org/arquivos/editor/files/Folheto%20The%20BRICS%20Sustainable(2).pdf)

- Abers, Rebecca Neaera. “Conflitos, mobilizações e participação institucionalizada: a relação entre a sociedade civil e a construção de grandes obras de infraestrutura.” *Instituto de Pesquisa Econômica*, Rio de Janeiro (2016): 16-17.
- African Union. *Agenda 2063: The Africa We Want*. African Union Commission, April 2015. http://www.agenda2063.au.int/en/sites/default/files/agenda2063_popular_version_05092014_EN.pdf.
- Amorim, Leonardo, Biviany Rojas Garzón, Brent Millikan, Sílvia Zanatta. “A Política de Responsabilidade Socioambiental do BNDES: situação atual e necessidade de revisão.” *In Política Socioambiental do BNDES: Presente e Futuro*. Instituto de Estudos Socioeconômicos (2015): 121-140.
- Ang, Hector Gomez, and Mario Monzoni. *Large-scale projects in the Amazon: lessons learned and guidelines*. São Paulo: FGV EAESP, 2017.
- Armijo, Leslie Elliot, and Cynthia Roberts. “The Emerging Powers and Global Governance: why the BRICS matter.” *Handbook of emerging economies* (2014): 503-520. <http://www.leslieelliottarmijo.org/wp-content/uploads/2011/02/ArmRobts-13-July-20-BRICS.pdf>.
- Asian Development Bank. *Asian Development Bank Safeguard Policy Statement*. Asian Development Bank, 2009. <https://www.adb.org/documents/environment-policy-asian-development-bank>
- Asian Development Bank. *Climate Change Operational Framework 2017-2030. Enhanced Actions for Low Green Gas Emissions and Climate-Resilient Development*. Philippines: Asian Development Bank, 2017. <https://www.adb.org/sites/default/files/institutional-document/358881/ccof-2017-2030.pdf>.
- Asian Development Bank. *Environment operational directions, 2013–2020: Promoting transitions to green growth in Asia and the Pacific*. Asian Development Bank, 2013. <https://www.adb.org/sites/default/files/institutional-document/33869/environment-operational-directions-2013-2020.pdf>
- Asian Development Bank. *Investing in Sustainable Infrastructure. Improving Lives in Asian and the Pacific*. Philippines: Asian Development Bank, 2009. <http://prdrse4all.spc.int/sites/default/files/21-investing-sustainable-infrastructure.pdf>.
- Asian Development Bank. *Promoting the Use of Country Systems in ADB's Operations: A Systematic Approach*. Institutional Document, Asian Development Bank, 2015.
- Asian Development Bank. *Road to 2030 Consultation Paper: Considerations for ADB's New Strategy*. Asian Development Bank, 2017. https://www.adb.org/sites/default/files/page/181506/Roadto2030_ConsultationPaper_FINAL.pdf
- Asian Development Bank. *Strategy 2020. The long-term strategic framework of the Asian Development Bank 2008-2020*. Philippines: Asian Development Bank, 2008. <https://www.adb.org/sites/default/files/institutional-document/32121/strategy2020-print.pdf>
- Asian Infrastructure Investment Bank. “Delivering on the 2030 Agenda.” *Asian Infrastructure Investment Bank*, October 17, 2016. https://www.aiib.org/en/news-events/news/2016/20161017_001.html
- Asian Infrastructure Investment Bank. *2017 Business Plan and Budget Summary*. Asian Infrastructure Investment Bank, 2016. <https://www.aiib.org/en/policies-strategies/download/business-plan-2017/aiib-2017-business-plan-and-budget.pdf>
- Asian Infrastructure Investment Bank. *AIIB Energy Sector Strategy: Sustainable Energy for Asia Discussion Draft for Consultation*. Asian Infrastructure Investment Bank, 2017. <https://www.aiib.org/en/policies-strategies/strategies/sustainable-energy-asia/content/index/download/Energy-Strategy-Discussion-Draft.pdf>
- Asian Infrastructure Investment Bank. *Annual meeting of the board of Governors-Summary Proceedings*. Beijing: Asian Infrastructure Investment Bank, 2016. <https://www.aiib.org/en/about-aiib/governance/board-governors/content/index/download/20160913083104365.pdf>
- Asian Infrastructure Investment Bank. *Annual meeting of the board of Governors-Summary Proceedings. Maldives's address*. Beijing: Asian Infrastructure Investment Bank, 2016. <https://www.aiib.org/en/about-aiib/governance/board-governors/content/index/download/20160913083104365.pdf>
- Asian Infrastructure Investment Bank. *Complaints Handling Mechanism*. Asian Infrastructure Investment Bank, 2017. https://www.aiib.org/en/policies-strategies/download/consultation/consultation_aiib.pdf

- Asian Infrastructure Investment Bank. *Connecting Asia for the future*. Annual Report and Accounts 2016. Asian Infrastructure Investment Bank, 2016. https://www.aiib.org/en/news-events/news/2016/annual-report/.content/download/Annual_Report_2016.pdf
- Asian Infrastructure Investment Bank. *Energy Sector Strategy: Sustainable Energy for Asia*. Asian Infrastructure Investment Bank, 2017. <https://www.aiib.org/en/policies-strategies/strategies/sustainable-energy-asia/.content/index/download/aiib-energy-sector-Strategy-2017.pdf>
- Asian Infrastructure Investment Bank. *Environment and Social Framework*. Asian Infrastructure Investment Bank, 2016. https://www.aiib.org/en/policies-strategies/_download/environment-framework/20160226043633542.pdf.
- Asian Infrastructure Investment Bank. *General Conditions for Sovereign-backed Loans*. Asian Infrastructure Investment Bank, 2016. https://www.aiib.org/en/policies-strategies/download/general-conditions/policy_general_conditions_sovereign_backed_loans.pdf
- Asian Infrastructure Investment Bank. *Governors' Seminar I: Sustainable Infrastructure*. Korea: Asian Infrastructure Investment Bank, 2017. [https://www.aiib2017.org/file/eng/\(1\)/Governors%20Seminar%20I.pdf](https://www.aiib2017.org/file/eng/(1)/Governors%20Seminar%20I.pdf)
- Asian Infrastructure Investment Bank. *Institutional Goals*. Asian Infrastructure Investment Bank. <https://www.aiib.org/en/policies-strategies/strategies/index.html#goals>
- Asian Infrastructure Investment Bank. January. *AIIB Energy Sector Strategy: Sustainable Energy for Asia Discussion Draft for Consultation*. Asian Infrastructure Investment Bank. 2017. <https://www.aiib.org/en/policies-strategies/strategies/sustainable-energy-asia/.content/index/download/Energy-Strategy-Discussion-Draft.pdf>
- Asian Infrastructure Investment Bank. June 16-17 *Seminar Web Summaries*. Korea: Asian Infrastructure Investment Bank, 2017. https://www.aiib.org/en/news-events/events/2017-annual-meeting/.content/download/Summary_web_summaries.pdf
- Asian Infrastructure Investment Bank. *Operational Policy on Financing*. Asian Infrastructure Investment Bank, 2016 (updated 2017). https://www.aiib.org/en/policies-strategies/download/operation-policy/policy_operational_financing_new.pdf
- Asian Infrastructure Investment Bank. *Procurement policy*. Asian Infrastructure Investment Bank. January, 2016. https://www.aiib.org/en/policies-strategies/download/procurement-policy/policy_procurement.pdf
- Beghin, Nathalie, Alessandra Cardoso, and Lara Pietricovsky. "Política socioambiental do BNDES: da saída pela tangente à busca de soluções compartilhadas." In *Política Socioambiental do BNDES: Presente e Futuro*, Instituto de Estudos Socioeconômicos (2015): 141-155.
- Berteklsmann-Scott, Talitha, Cyril Prinsloo, Elizabeth Sidiropoulos, Lesley Wentworth, and Christopher Wood. *The new development bank: moving the BRICS from an acronym to an institution*. Occasional Paper 233, South African Institute of International Affairs (SAIIA), 2016. <https://goo.gl/OdpB5G>.
- Bhattacharya, Amar, Jeremy Oppenheim, and Nicholas Stern. "Driving sustainable development through better infrastructure: key elements of a transformational program." *Brookings Global Working Paper Series* 91 (2015). <https://www.brookings.edu/wp-content/uploads/2016/07/07-sustainable-development-infrastructure-v2.pdf>.
- Bielenberg, Aaron, Mike Kerlin, Jeremy Oppenheim, and Melissa Roberts. *Financing change: How to mobilize private-sector financing for sustainable infrastructure*. McKinsey Center for Business and Environment, 2016. http://www.indiaenvironmentportal.org.in/files/file/Financing_change_How_to_mobilize_private-sector_financing_for_sustainable_infrastructure.pdf
- BNDES. *2015 Annual Report*. Brazilian Development Bank, 2016. <https://web.bndes.gov.br/bib/ispui/handle/1408/8574>
- BNDES. *2016 Annual Report*. Brazilian Development Bank, 2017. http://www.bndes.gov.br/SiteBNDES/bndes/bndes_pt/Hotsites/Relatorio_Anual_2016/assets/bndes_ra2016_web_00_completo.pdf
- BNDES. *Social and Environment Responsibility Policy*. Brazilian Development Bank. https://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Social_and_Environmental_Responsibility/social_environmental_responsibility_policy.html

- Bond, Patrick, and Ana Garcia, eds. *BRICS: An Anti-capitalist Critique*. Johannesburg: Jacana Press, 2015.
- Borges, Caio. *Development for the People? The BNDES Financing and Human Rights*. Conectas Series #2, Brazil: Conectas Human Rights, 2014.
- Borges, Caio. *Optimism, Skepticism, and Pragmatism: The Clashing Narratives on the Rise of New Actors in International Development Finance*. Proceedings of the 110th ASIL Annual Meeting, 2017.
- Brundtland, Gro Harlem. *Report of the World Commission on Environment and Development: "Our Common Future"*. United Nations, 1987. <http://www.un-documents.net/our-common-future.pdf>.
- Chavkin, Sasha, and Michael Hudson. "New Investigation Reveals 3.4M displaced by World Bank." *The International Consortium of Investigative Journalists (ICIJ)*, April 16, 2015. <https://www.icij.org/blog/2015/04/new-investigation-reveals-34m-displaced-world-bank>.
- Climate Bond Initiative. *Geothermal Energy and the Climate Bond Standard. Version 1.0*. Climate Bond Initiative. [https://www.climatebonds.net/files/files/Geothermal%20Energy%20and%20the%20Climate%20Bond%20Standard%20online%20final\(1\).pdf](https://www.climatebonds.net/files/files/Geothermal%20Energy%20and%20the%20Climate%20Bond%20Standard%20online%20final(1).pdf)
- Climate Bond Initiative. *Low Carbon Buildings Criteria*. Climate Bond Initiative. <https://www.climatebonds.net/low-carbon-buildings-criteria>
- Climate Bond Initiative. *Low Carbon Land Transport and the Climate Bonds Standard. Version 1.0*. Climate Bond Initiative. [https://www.climatebonds.net/files/files/Low%20Carbon%20Transport%20Background%20Paper%20Redraft%20Final%20Feb%202017%20\(2\).pdf](https://www.climatebonds.net/files/files/Low%20Carbon%20Transport%20Background%20Paper%20Redraft%20Final%20Feb%202017%20(2).pdf)
- Climate Bond Initiative. *The Water Criteria of the Climate Bonds Standards* Climate Bond Initiative. [https://www.climatebonds.net/files/files/Water_Criteria_of_the_ClimateBondsStandard_October2016\(1\).pdf](https://www.climatebonds.net/files/files/Water_Criteria_of_the_ClimateBondsStandard_October2016(1).pdf)
- Climate Bond Initiative. *Wind Sector Eligibility Criteria of the Climate Bonds Standard*. Climate Bond Initiative, 2017. [https://www.climatebonds.net/files/files/Sector%20Criteria%20-%20Wind%20v1_0\(1\).pdf](https://www.climatebonds.net/files/files/Sector%20Criteria%20-%20Wind%20v1_0(1).pdf)
- Climate Bonds Initiative. *Climate Bonds Standard. Version 2.0*, Climate Bonds Initiative, 2015. [https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_0%20-%202015%20\(1\).pdf](https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_0%20-%202015%20(1).pdf)
- Climate Bonds Initiative. *Climate Bonds Standard. Version 2.1*, Climate Bonds Initiative, 2017. https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_1%20-%20January_2017.pdf.
- Development Bank of South Africa. "DBSA plays key role in SA's wind energy industry." *Development Bank of South Africa* in News, October 22, 2016. <https://www.dbsa.org/EN/DBSA-in-the-News/NEWS/Pages/DBSA-APPROVES-R-9.6-BILLION.aspx>
- Development Bank of South Africa. *Environment Appraisal Framework. Executive Summary*. Gauteng: Development Bank of South Africa. <https://www.dbsa.org/EN/InvestorRelations/Environmental%20Appraisal%20Documents/DBSA%20Environmental%20Appraisal%20Framework%20Summary.pdf>
- Development Bank of South Africa. *Environmental and Social Safeguard Standards*. Development Bank of South Africa, 2015. <http://www.dbsa.org/EN/InvestorRelations/Environmental%20Appraisal%20Documents/Environmental%20and%20Social%20Safeguard%20Standards.pdf>
- Development Bank of South Africa. *Make Change Happen. 2016 Integrated Annual Report*. Gauteng: Development Bank of South Africa, 2016. <https://www.dbsa.org/EN/About-Us/Publications/Annual%20Reports/DBSA%20Integrated%20Annual%20Report%202015-16.pdf>
- Dewachter, Sara, and Nadia Molenares. "Who takes a seat at the pro-poor table?." *Latin American Research Review* 46, no. 3 (2011): 112-132.
- Egler, Hans-Peter, and Raul Frazao. *Sustainable Infrastructure and Finance*. Working Paper Series 16/09, UNEP Inquiry and Global Infrastructure Basel (GIB), 2016. http://unepinquiry.org/wp-content/uploads/2016/06/Sustainable_Infrastructure_and_Finance.pdf

- European Commission. *The multifunctionality of Green Infrastructure*. 2012, In-depth Reports, Science for Environment Policy. http://ec.europa.eu/environment/nature/ecosystems/docs/Green_Infrastructure.pdf
- Extractive Industries Transparency Initiative. *The EITI Principles- PART I*. Extractive Industries Transparency Initiative. <https://eiti.org/sites/default/files/documents/eiti-standard-principles.pdf>
- Fankhauser, Samuel and Nicholas Stern. "Climate Change, Development, Poverty and Economics." *Grantham Research Institute on Climate Change and the Environment*. <http://pubdocs.worldbank.org/en/728181464700790149/Nick-Stern-PAPER.pdf>
- FGV EAESP. *Grandes Obras Na Amazônia: Aprendizados E Diretrizes*. FGV EAESP Centro De Estudos Em Sustentabilidade, 2016. <http://consulta-grandesobras.gvces.com.br/>
- Flyvbjerg, Bent. "Introduction: The Iron Law of Megaproject Management." In *The Oxford Handbook of Megaproject Management*, edited by Bent Flyvbjerg, 1-18. Oxford: Oxford University Press, 2017.
- G20. *High Level Panel on Infrastructure Recommendations to G20 – Final Report*. Submission to the G20, 2011. https://us.boell.org/sites/default/files/downloads/HPL_Report_on_Infrastructure_10-26-2011.pdf
- Garzón, Paulina, and Leila Salazar-López. "China's Other Big Export: Pollution." *The New York Times*, July 21, 2017. <https://www.nytimes.com/2017/07/21/opinion/china-climate-pollution-global-warming.html>.
- Global Infrastructure Hub. *Report to G20 Deputy Finance Ministers and Deputy Central Bank Governors on MDB Internal Incentives for Crowding-in Private Investment in Infrastructure*. ISBN 978-0-9946284-7-3. Australia: Global Infrastructure Hub, 2016. <http://www.g20.utoronto.ca/2017/2017-Germany-GIH-report-to-G20.pdf>
- Global Reporting Initiative. *GRI 101: Foundation 2016*. Netherlands : GRI, 2016. <https://www.globalreporting.org/standards/media/1036/gri-101-foundation-2016.pdf>
- Global Reporting Initiative. *Sustainability Reporting Guidelines and Oil & Gas Supplement*. <https://www.globalreporting.org/resourcelibrary/G3-1-English-Oil-and-Gas-Sector-Supplement.pdf>
- Global Reporting Initiative. *Sustainability Reporting Guidelines. Version 3.1*. Netherlands: GRI, 2011. <https://www.globalreporting.org/resourcelibrary/G3.1-Guidelines-Incl-Technical-Protocol.pdf>.
- Government of Brazil. *6th BRICS Summit – Fortaleza Declaration*. Brasilia: Ministry of External Relations, 2014. <http://brics.itamaraty.gov.br/media2/press-releases/214-sixth-brics-summit-fortaleza-declaration>.
- Government of India, Planning Commission. *Eleventh Five Year Plan (2007-2012) Inclusive Growth*. 2011 Volume I. New Delhi: Sage Publications. http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v1/11th_vol1.pdf
- Government of India, Planning Commission. *Twelfth Five Year Plan (2012-2016) Faster, more inclusive and sustainable growth*. 2012 Volume I. New Delhi: Sage Publications. http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v1/11th_vol1.pdf
- Government of India. *4th BRICS Summit - Delhi Declaration*. New Delhi: Ministry of External Affairs, 2012. <http://mea.gov.in/bilateral-documents.htm?dtl/19158/Fourth+BRICS+Summit++Delhi+Declaration>
- Government of South Africa. *5th BRICS Summit Declaration. BRICS and Africa: Partnership for Development, Integration and Industrialization*. DIRCO, 2013. <http://brics2016.gov.in/upload/files/document/5763be1c4da6e5th1.pdf>.
- Hansen, Rieke, and Stephan Pauleit. "From multifunctionality to Multiple Ecosystem Services? A Conceptual Framework for Multifunctionality in Green Infrastructure Planning for Urban areas." *Ambio* 43, no.4 (2014): 516–529.
- Hochstetler, Kathryn. *Infrastructure and Sustainable Development Goals in the BRICS-Led New Development Bank*. Policy Brief No. 46. Centre for International Governance Innovation, 2014. <https://www.cigionline.org/publications/infrastructure-and-sustainable-development-goals-brics-led-new-development-bank>.
- Humphrey, Christopher. "Infrastructure Finance in the Developing World: Challenges and Opportunities for Multilateral Development Bank in 21st Century Infrastructure Finance." *The Global Green Growth Institute (GGGI) and the Intergovernmental Group of Twenty-Four on Monetary Affairs and Development (G-24) Working Paper Series*, Washington, 2015.

- Ikenberry, John. "The rise of China and the future of the West: can the liberal system survive?." *Foreign Affairs* (2008): 23-37. <https://www.foreignaffairs.com/articles/asia/2008-01-01/rise-china-and-future-west>.
- Institute for Sustainable Infrastructure and Zofnass Program. *Envision. Rating System for Sustainable Infrastructure*. Washington, DC: Institute for Sustainable Infrastructure, 2015. http://research.gsd.harvard.edu/zofnass/files/2015/06/Envision-Manual_2015_red.pdf
- Instituto Socioambiental. "Nova legislação do licenciamento ambiental vai instaurar guerra fiscal", diz advogado do ISA." *Instituto Socioambiental*, December 16, 2016. Available at: <https://www.socioambiental.org/pt-br/noticias-socioambientais/novo-legislacao-do-licenciamento-ambiental-vai-instaurar-guerra-fiscal-diz-advogado-do-isa>.
- Interamerican Development Bank. *Integration and Trade Sector Framework Document*. Interamerican development bank, 2016. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=40394209>
- Interamerican Development Bank. *Sustainable infrastructure for competitiveness and inclusive growth*. Interamerican Development Bank, 2014. <https://publications.iadb.org/handle/11319/6398>
- Interamerican Development Bank. *Water and sanitation sector framework document*. Interamerican Development Bank, 2014. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=39236823>
- International Finance Corporation. *Annual Report 2015*. International Finance Corporation, 2015. http://www.ifc.org/wps/wcm/connect/2be36b8049cfbc00b937bbe54d141794/IFC_AR15_Section_1_AboutIFC.pdf?MOD=AJPERES
- International Finance Corporation. *Environmental and social review procedures manual*. International Finance Corporation, 2016. <http://www.ifc.org/wps/wcm/connect/190d25804886582fb47ef66a6515bb18/ESRP%2BManual.pdf?MOD=AJPERES>
- International Finance Corporation. *Environmental, social and governance accountability*. International Finance Corporation. http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/accountability
- International Finance Corporation. *Experience matters. IFC Annual Report 2016*. International Finance Corporation, 2016. http://www.ifc.org/wps/wcm/connect/bf1bfb0b-216b-4cde-941b-dd55febe9d3a/IFC_AR16_Full_Volume_1.pdf?MOD=AJPERES
- International Finance Corporation. *IFC Sustainability Framework. Policy and Performance standards on Environmental and Social Sustainability. Access to Information Policy*. Washington, DC: International Finance Corporation, 2012. https://www.ifc.org/wps/wcm/connect/b9dacb004a73e7a8a273fff998895a12/IFC_Sustainability_Framework_k.pdf?MOD=AJPERES
- International Finance Corporation. *IFC sustainability framework*. International Finance Corporation. http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/sustainability+framework
- International Finance Corporation. *IFC sustainability webinar series*. International Finance Corporation. http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/ifc_sustainability_webinars
- International Finance Corporation. *International Finance Corporation's Policy on Environmental and Social Sustainability*. International Finance Corporation, 2012. http://www.ifc.org/wps/wcm/connect/7540778049a792dcb87efaa8c6a8312a/SP_English_2012.pdf?MOD=AJPERES
- International Finance Corporation. *The Business Case for Sustainability*. International Finance Corporation. <http://www.ifc.org/wps/wcm/connect/9519a5004c1bc60eb534bd79803d5464/Business%2BCase%2Bfor%2BSustainability.pdf?MOD=AJPERES>
- International Financial Corporation. *Performance Standards on Environmental and Social Sustainability*. International Finance Corporation, 2012. http://www.ifc.org/wps/wcm/connect/115482804a0255db96fbffd1a5d13d27/PS_English_2012_Full-Documents.pdf?MOD=AJPERES.

- Ivins, Courtney. "Inequality matters: BRICS inequalities fact sheet." *Oxfam Policy and Practice: Climate Change and Resilience* 9, no. 1 (2013): 39-50. <http://www.eldis.org/document/A67121>
- Kahler, Miles. "Rising powers and global governance: negotiating change in a resilient status quo." *International Affairs*, 89, no. 3 (2013): 711–729. doi:10.1111/1468-2346.12041.
- Kapur, Devesh. "Escape from the World Bank." *Project Syndicate*, October 16, 2015. <https://www.project-syndicate.org/commentary/emerging-economies-development-banks-by-devesh-kapur-2015-10?barrier=accessreg>.
- Khadka, Sangita, Amy Collins and Stevan Jackson. "Mapping the oil and gas industry to the Sustainable Development Goals: An Atlas." *United Nations Development Programme* (2017). <http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/mapping-the-oil-and-gas-industry-to-the-sdgs--an-atlas.html>
- Larsen, Gaia, and Athena Ballesteros. *Striking the Balance: Ownership and Accountability in Social and Environmental Safeguards*. ISBN 978-1-56973-825-2, World Resource Institute (WRI), 2014. http://www.wri.org/sites/default/files/wri_striking_the_balance_report.pdf.
- Leal, Milton. "Does anyone know anything about the new BRICS bank?" *China Dialogue*, January 28, 2016. <https://www.chinadialogue.net/article/show/single/en/8568-Does-anyone-know-anything-about-the-new-%20BRICS-bank>
- Mallapur, Chaitanya. "India largest recipient of World Bank loans over 70 years." *Business Standard*, January 13, 2016. http://www.business-standard.com/article/specials/india-largest-recipient-of-world-bank-loans-over-70-years-116011300637_1.html.
- McGregor, James. "The 13th Five-Year Plan: Xi Jinping Reiterates his Vision for China." *APCO Forum*, November 13, 2015. <http://www.apcoworldwide.com/blog/detail/apcoforum/2015/11/13/the-13th-five-year-plan-xi-jinping-reiterates-his-vision-for-china>.
- Mishra, Asit R. "India needs Rs43 trillion of investment in infrastructure over next 5 years: Jaitley." *Livemint*, April 1, 2017. <http://www.livemint.com/Politics/gPlr87Sm2mtmYHZ3WrdxvL/India-to-grow-at-77-in-2018-emerging-markets-face-newer-c.html>.
- Money Control. "YES Bank & SIDBI join for financing energy efficiency projects." *Sustainability Outlook*, July 12, 2016. <http://www.sustainabilityoutlook.in/news/yes-bank-sidbi-join-financing-energy-efficiency-projects-756910>
- MSCI. *ESG Ratings Methodology- Executive Summary*" MSC ESG Research, 2015. https://www.msci.com/eqb/methodology/meth_docs/Executive_Summary_MSCI_ESG_Ratings_Methodology.pdf
- Multilateral Investment Guarantee Agency. *Policy on Environmental and Social Sustainability*. Multilateral Investment Guarantee Agency, 2013. https://www.miga.org/documents/Policy_Environmental_Social_Sustainability.pdf
- New Development Bank. *Diversity Policy*. Shanghai: New Development Bank, 2017.
- New Development Bank. *Environmental and Social Framework*. New Development Bank, 2017.
- New Development Bank. *Environmental and Social Framework*. New Development Bank, 2017.
- New Development Bank. *NDB's General Strategy: 2017 – 2021*. Shanghai: New Development Bank, 2017.
- New Development Bank. *Note on Sustainable Infrastructure*. Unpublished Manuscript, 2017.
- Nielson, Stephen, and Mario Sergio Lima. "Protests over Brazil Hydro Drives Delay and Boosts Costs." *Bloomber*, June 6, 2013.
- Observer Research Foundation. *4th BRICS Academic Forum: Security Stability and Growth*. Observer Research Foundation, 2012. https://samirsaran.files.wordpress.com/2012/03/4th-brics-academic-forum_03-03-12.pdf
- Observer Research Foundation. *Recommendations of the 4th BRICS Academic Forum*. New Delhi: Observer Research Foundation, 2012. <http://www.brics.utoronto.ca/docs/120306-academic-forum.html>.
- OECD. *Paris Declaration on Development Aid Effectiveness*. Organization for Economic Cooperation and Development, 2005.

- Park, Susan, and Jonathan R. Strand, eds. *Global Economic Governance and the Development Practices of the Multilateral Development Banks*. New York: Routledge, 2015.
- Rana, Namrata and Utkarsh Majmudar. "Banking responsibly at Yes Bank." *The Economic Times*, January 5, 2016. <http://blogs.economicstimes.indiatimes.com/ResponsibleFuture/banking-responsibly-at-yes-bank/>
- Robinson-Pant, Anna. *Promoting Health and Literacy for Women's Empowerment*. UNESCO, Germany: UNESCO Institute for Lifelong Learning, 2016. <http://unesdoc.unesco.org/images/0024/002456/245698e.pdf>
- Rodrik, Dani. "What the World Needs from the BRICS." *Project Syndicate*, April 10, 2013. <https://www.project-syndicate.org/commentary/the-brics-and-global-economic-leadership-by-dani-rodrik?barrier=accessreg>.
- Roychoudhury, Supriya, and Karin Costa Vazquez. "What is new about the BRICS-led New Development Bank?" *Devex*, May 09, 2016. <https://www.devex.com/news/what-is-new-about-the-brics-led-new-development-bank-88126>.
- Sachs, Jeffrey D. *The age of sustainable development*. New York: Columbia University press, 2015.
- Santos, Lean Alfred. "Civil Society calls for safeguards as BRICS Bank approves first loans." *Devex*, April 18, 2016. <https://www.devex.com/news/civil-society-calls-for-safeguards-as-brics-bank-approves-first-loans88038>.
- Schiappacasse, Paulina, and Bernhard Muller. "Planning Green Infrastructure as a Source of Urban and Regional Resilience – Towards Institutional Challenges." *Urbani izziv* 26 (2015): S13-S24.
- Serebrisky, Tomás. *Sustainable infrastructure for competitiveness and inclusive growth*. Washington DC: Inter-American Development Bank, 2014. <http://www20.iadb.org/intal/catalogo/PE/2014/14088en.pdf>
- Shaker, Richard Ross. "The spatial distribution of development in Europe and its underlying sustainability correlations". *Applied Geography* 63 (2015): 304-314. doi.org/10.1016/j.apgeog.2015.07.009 p. 305.
- Singh, Suresh P., and Memory Dube. *BRICS and the world order: A beginner's guide*. CUTS Centre for International Trade, Economics & Environment and South African Institute of International Affairs (SAIIA), 2014. http://cuts-international.org/BRICS-TERN/pdf/BRICS_and_the_World_Order-A_Beginners_Guide.pdf
- Stern, Nicholas, Joseph Stiglitz, Amar Bhattacharya and Mattia Romani. "Why the World Needs a BRICS Bank." *Project Syndicate*, May 2, 2013. <http://www.economywatch.com/economy-business-and-finance-news/why-the-world-needs-a-brics-bank-nicholas-stern-joseph-stiglitz.02-05.html>
- Studart, Rogério and Luma Ramos. *The new development banks and the financing of transformation in Latin America and the Caribbean*, Manuscript submitted for publication, 2017.
- Suryanarayana, M. H. "Inclusive Growth: A Sustainable Perspective." *Indira Gandhi Institute of Development Research*, Mumbai 400 (2013): 065, United Nations Development Programme. <http://www.undp.org/content/dam/india/docs/human-development/inclusive-growth--a-sustainable-perspective.pdf>
- The Asia Foundation, KDI School, and Australian Government (Workshop). *Asian Approaches to Development Cooperation: Focus on Women and Girls' Empowerment*. 13-14 September. Ulaanbaatar: The Asia Foundation, KDI School, and Australian Government, 2017. https://asiafoundation.org/wp-content/uploads/2017/10/AADC_MG-Focus-on-Women-and-Girls-Empowerment.pdf
- The Eurasia Center and Eurasian Business Coalition. *The 3rd Annual "Doing Business with BRICS" Conference*. 2015, The Embassy of South Africa and The Embassy of the Russian Federation, Washington, D.C. <https://eurasiacenter.org/publications/3rd%20Annual%20BRICS%20Conference%208-5-2015.pdf>
- The Global Commission on the Economy and Climate. *Better growth better climate: the new climate economy report*. Washington DC: New Climate Economy, 2014. http://static.newclimateeconomyreport/wp-content/uploads/2014/08/BetterGrowth-BetterClimate_NCE_Synthesis-Report_web.pdf
- The People's Bank of China. *Guidelines for Establishing the Green Financial System*. August 31, 2016. <http://www.pbc.gov.cn/english/130721/3133045/index.html>.
- United Nations General Assembly. *Resolution adopted by the General Assembly on 25 September 2015*. Seventieth session. Agenda items 15 and 116. October 21, 2015.

- United Nations Human Rights, Office of the High Commissioner. *Guiding Principles on Business and Human Rights – Implementing the United Nations “Protect, Respect and Remedy” Framework*. HR/PUB/11/04, New York: United Nations, 2011. http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf
- United Nations Human Rights, Office of the High Commissioner. *The corporate responsibility to respect human rights: An interpretive guide*. HR/PUB/12/02, New York: United Nations, 2012. http://www.ohchr.org/Documents/Publications/HR.PUB.12.2_En.pdf
- Vazquez, Karin, and Lucey, Amanda. *Advancing South-South cooperation in education and skills development: lessons from the field*. United Nations Development Programme, 2016. [http://www.undp.org/content/dam/undp/library/development-impact/SS_Research_Publications/11872_-_Advancing_South-South_Cooperation_in_Education_08_Web_Version\(1\).pdf](http://www.undp.org/content/dam/undp/library/development-impact/SS_Research_Publications/11872_-_Advancing_South-South_Cooperation_in_Education_08_Web_Version(1).pdf)
- Vazquez, Karin, Supriya Roychoudhury, and Caio Borges. “New Development Bank is BRICS' best card.” *Financial Times*, September 5, 2017. <https://www.ft.com/content/cc7c7ee6-918b-11e7-a9e6-11d2f0ebb7f0?mhq5j=e7>
- Verba, Sidney, Kay L. Schlozman, and Henry E. Brady. *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge: Harvard University Press, 1995.
- Waisbich, Laura and Caio Borges. *The BRICS' New Development Bank at the Crossroads: Challenges for Building Development Cooperation in the 21st Century*. Unpublished manuscript, 2017.
- Watkins, Graham, Sven-Uwe Mueller, Maria Cecilia Ramirez, Hendrik Meller, Ioannis Blatsos, Julia Carvalho Fernandes de Oliveira, Cristina Contreras Casado, Andreas Georgoulis, Nikos Georgoulis, and Judith Rodriguez. *Lessons from Four Decades of Infrastructure Project-Related Conflicts in Latin America and the Caribbean*. Interamerican Development Bank, 2017. <https://publications.iadb.org/handle/11319/8502>
- World Bank. “Shortage of Long-term Finance Blunts Progress in Developing Countries.” *The World Bank Press Release*, September 14, 2015. <http://www.worldbank.org/en/news/press-release/2015/09/14/long-term-finance-shortage-post-2008-crisis-blunts-progress-in-developing-countries>
- World Bank. *Global financial development report 2015-2016: long-term finance*. Washington, DC: World Bank Group, 2015. <http://documents.worldbank.org/curated/en/955811467986333727/Global-financial-development-report-2015-2016-long-term-finance>
- Yes Bank “*Glocalizing Responsible Banking in India. Sustainability report 2014-15*.” Yes Bank, 2015. https://www.unglobalcompact.org/system/attachments/cop_2016/229491/original/YES_Bank_SR_2014-15_Glocalizing_Responsible_Banking_in_India.pdf?1454502987
- Yes Bank *Bond Listing*. India: Bombay Stock Exchange. <http://www.bseindia.com/downloads/ipo/201051014485Yes%20Bank.pdf>
- Yes Bank. “YES BANK included in the FTSE4Good Emerging Index.” *Yes Bank Press Release*, 2017. <https://www.yesbank.in/media/press-releases/yes-bank-included-in-the-ftse4>
- Yes Bank. *Catalyzing a Shared Sustainable Future. Sustainability Report 2012-13*. Yes Bank, 2013. https://www.yesbank.in/pdf/catalyzing_a_shared_sustainable_future_2012_13.pdf
- Yes Bank. *Globalizing Responsible Banking - Mindshare & Outcomes in India. Sustainability report 2015-2016*. Yes Bank, 2016. https://www.yesbank.in/pdf/glocalizing_responsible_banking_mind_share_outcomes_in_india.pdf
- Yuan, Fei, and Kevin P. Gallagher. “Greening Development Finance in the Americas.” *Global Economic Governance Initiative*, Boston: Boston University, 2015.
- Zhang, Yue. “NDB planning loans for sustainable infrastructure.” *China Daily USA*, July 26, 2017. http://www.chinadaily.com.cn/bizchina/2017-07/26/content_30249360.htm

Annex I – Projects approved by the NDB as of September 2017

| | LOAN AMOUNT | SOV. /NON-SOV | BORROWER | GUARANTOR | END-USER/ ON-LENDEE | LENDING MODALITY | TARGET SECTOR | DEVELOPMENT IMPACT |
|---|----------------------|----------------------|----------------------------------|---------------------|--|--|--|---|
| Canara (India) | USD 250 m | Sovereign guaranteed | Canara Bank | Government of India | Sub-projects | Sovereign guaranteed: 3 tranches | Renewable energy (wind, solar etc) | - 500 MW renewable energy - Avoided 815,000 t CO2/year |
| Lingang (China) | RMB 525 m (USD 81 m) | Sovereign | PRC Government | - | Shanghai Lingang Hongbo New Energy Development Co. Ltd. | Sovereign project loan | Renewable energy (solar rooftop PV) | - 100 MW Solar - Avoided 73,000 t CO2/year |
| BNDES (Brazil) | USD 300 m | Non-sovereign | BNDES | - | Sub-projects | National financial intermediary (NFI): two step loan | Renewable energy (wind, solar etc) | - 600 MW renewable energy - Avoided 1,000,000 t CO2/year |
| ESKOM (South Africa) | USD 180 m | Sovereign guaranteed | ESKOM | Government of RSA | ESKOM | Sovereign guaranteed project loan | Renewable energy (transmission) | - 670 MW renewable energy evacuated (transmitted) - Avoided 1,300,000 t CO2/year |
| EDB/TIB (Russia) | USD 100 m | Non-sovereign | EDB/TIB | - | Nord Hydro-Bely Porog + other subproject(s) | National financial intermediary (NFI): two step loan | Renewable energy (hydro-power) + green energy | - 49.8 MW renewable energy - Avoided 48,000 t CO2/year |
| Madhya Pradesh (India) | USD 350 m | Sovereign | Government of India | - | Government of Madhya Pradesh | Sovereign project finance facility | Upgrading major district roads | - About 1,500 km of MDRs will be upgraded |
| Pinghai (China) | RMB 2 bn (USD 298 m) | Sovereign | PRC Government | - | Fujian Investment and Development Group | Project loan | Renewable energy (wind power) | - 250 MW Wind - Avoided 869,900 t CO2/year |
| Hunan (China) | RMB 2 bn (USD 300 m) | Sovereign | PRC Government | - | Sub-project PIUs in Changsha, Zhuzhou and Xiangtan | Sovereign Project finance facility | Water, sanitation and flood control, environment | - Improved water quality and flood control in the main streams and tributaries of Xiang River |
| Jiangxi (China) | USD 200 m | Sovereign | PRC Government | - | Government of Jiangxi Province | Sovereign Project finance facility | Energy conservation | - Savings of 95,118 tons of coal equivalent - Annual CO2 emissions reduction is 263,476 tonnes |
| MP Water (India) | USD 470 m | Sovereign | Government of India | - | Government of Madhya Pradesh | Sovereign project loan | Water supply and sanitation, rural development | - Project covers more than 3,400 villages and will benefit over 3 million rural population |
| Judicial Support (Russia) | USD 460 m | Sovereign | Government of Russian Federation | - | Beneficiaries – Supreme Court, Moscow City Court and District Courts, Federal Bailiffs Service | Sovereign project loan | Social infrastructure | - Increased judicial transparency and efficiency, and enhanced protection of judicial rights of citizens of the country |

Annex II – Research questions

Questions for the benchmarking:

- How does the organization define sustainable development?
- What type of infrastructure does the organization finance/focus on? (e.g. sustainable/traditional, sectors, specific type of infrastructure)
- How does the organization define sustainable/traditional infrastructure? If no formal definition exists, what is the logic behind portfolio allocation?
- What does sustainable infrastructure mean for different sectors? If no formal definition exists, what is the logic behind each sector?
- In the case of traditional infrastructure, is there any reconciling element or mechanism to offset/mitigate socio-environmental impacts?
- Does the organization have indexes/tools to measure sustainable infrastructure? What are they?

Questions for the analysis:

- What is being repeated across the organizations in this group? What is missing?
- What are the main lessons for the NDB?
- What are some of the recommendations? (i.e. what the definition of sustainable infrastructure should contain? What could be possible core indicators? How could the core indicators be mainstreamed into Bank's operations?)



O.P. Jindal Global University
A Private University Promoting Public Service
NAAC Accreditation - 'A' Grade



Jindal School of International Affairs
India's First Global Policy School

CALACS!
Center for African, Latin American and Caribbean Studies
at O.P. Jindal Global University

CONECTAS
HUMAN RIGHTS

