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Article

Climate-Related Standards and Multilateral Finance for Development

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Abstract: This article discusses climate-related standards that development finance institutions establish or apply to projects supported by their investments. It focuses particularly on multilateral development banks given their major role in providing finance to developing countries, where the bulk of the world's fastest growing emissions are taking place. It looks at proposed and recently adopted standards, as well as different perspectives developed and developing countries have regarding these standards. It also discusses how these standards might be impacted by the evolution of the United Nations Framework Convention on Climate Change (UNFCCC) negotiations and concludes that there will be continuing challenges to implement these standards unless developed countries fulfill their pledge of expected finance.

Keywords: climate finance; multilateral development banks; climate-related standards; climate standards; climate negotiations; UNFCCC

1. Introduction

This article discusses the climate-related standards that development finance institutions, especially multilateral development banks (MDBs), establish or apply during the process of assessing and managing the climate impacts of their investments. For the purpose of this discussion, the term "standards" means those "operational policies" or "standards" that development institutions require to

be applied in investment project finance [1,2][1]. Broadly, these standards can address mitigation (such as standards related to greenhouse gas emissions reductions), but can also be designed to address a project's potential to enhance climate adaptation or resilience. The article also discusses some of the factors that may influence the development and application of these standards, such as the ongoing United Nations Framework Convention on Climate Change (UNFCCC) negotiations.

The application of climate-related standards to future investments will have a significant effect on greenhouse gas emissions [3,4][2] in the years to come. This effect will be particularly evident in those geographic regions where the fastest economic growth can be expected, and upon those institutions who will commit substantial sums for climate related finance. For example, in Asia alone, it has been estimated that demand to finance infrastructure will continue to soar in the years ahead, with the President of the World Bank recently noting that developing countries are facing an annual gap in funding needed for infrastructure of some $1 to 1.5 trillion per year [5][3].

The degree to which standards impact on the environment will be increasingly important because the energy, urbanization, transportation and industrial infrastructure financed and built today will be operating (and polluting, or not) for decades to come. The standards applied to these investments will determine or influence the type of fuel and technology being used, the size and scope of its operations, as well as how to protect this infrastructure and surrounding communities and environment from the impacts of a changing climate. Stated simply, the standards discussed in this article can determine or at least influence whether this infrastructure helps or harms the climate, including by their impact on associated long-standing mitigation and adaptation related measures and their costs. These standards are therefore an important tool for the efforts of the international regime to stabilize and reduce greenhouse gas emissions.

In addressing this issue, the climate-related standards set by MDBs[4] are important for several reasons. To begin, they are important because of the substantial size of MDB funding. MDBs already provide billions of dollars necessary for the developing world's infrastructure ([6], p. 6; [7]), and there could be

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1 This focus on "standards" does not mean that other non-binding policy measures such as institutional strategies or plans are unimportant. Indeed, in certain instances the financial institution may insist that such measures be applied as a condition of finance. Two prominent examples of this are the World Bank Strategic Framework for Development and Climate Change [1] and the World Bank Energy Sector Directions Paper, which makes extremely limited the possibility of the Bank to finance coal-fired investments. See: [2].

2 Annex A of the Kyoto Protocol to the United Nations Framework Convention on Climate Change originally included six greenhouse gases: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF 6). See: [3]. For the second commitment period of the Kyoto Protocol, Nitrogen Trifluoride (NF_3) was added. See: [4].

3 The President of the World Bank Dr. Jim Yong Kim released a statement on the occasion of the launching of the new Asian Infrastructure Investment Bank referring to the infrastructure financing gap: "The developing world's infrastructure investment needs are too huge for any single institution. The world spends about $1 trillion a year on infrastructure, but the vast majority of that goes to developed countries. Emerging markets and low-income countries face an annual gap of $1 trillion to $1.5 trillion in infrastructure spending". For the full statement, see: [5].

4 For the purposes of this article, the term "MDB" is intended to include the World Bank Group, particularly as it refers to the International Bank for Reconstruction and Development, the International Development Association, the International Finance Corporation, the Asian Development Bank, the African Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, and the Inter-American Development Bank.

considerably more on the way with the projected emergence later this year and next of the new Asian Infrastructure Investment Bank and the New Development Bank. These two banks are both to be headquartered in China and are in the process of developing their own environmental and social standards. Moreover, for over a decade, MDBs have been applying their standards to investments not only using their own funds, but also climate-related funds that they manage on behalf of a wide array of public and private sector donors. For example, the MDBs are partners in the Climate Investment Funds (CIFs) [8][5], which have set aside more than $8 billion for climate related projects. In addition, the World Bank manages more than a dozen carbon funds with total committed capital of close to $3 billion [9][6]. Even more broadly, at least four of the MDBs have or will be accredited entities of the Green Climate Fund (GCF) [10][7][8]. The GCF is envisioned to help direct the flow of over $100 billion per year of climate finance by the year 2020. As a general rule, when the MDBs provide these trust funds, they require the recipients to apply the same environmental and social standards that the MDBs apply to investment finance. This approach thereby extends the reach of the MDB standards beyond their own investment projects.

Second, almost all governments are shareholders in one or more of the MDBs. For example, 188 governments are shareholders in the World Bank and close to 120 developing countries receive MDB finance. Thus, the World Bank's standards and those of other MDBs help determine the type and eligibility of a wide range of project financed development. Indeed, MDB standards are often the benchmark for project finance even if they are not the primary source of finance for an individual project, and in some cases, where the finance is solely derived from commercial banks. For example, at least eighty of the world's largest commercial banks apply similar standards via their adoption of the Equator Principles, largely basing them on the environmental and social performance standards of the World Bank Group's private sector arm, the International Finance Corporation (IFC) [11]. The Green Climate Fund (GCF) of the UNFCCC has also decided that the IFC standards could serve as the GCF's interim environmental and social safeguards that apply to GCF financed projects ([12], p. 5)[9].

Third, the credibility of these standards lends them weight at many levels. This credibility is supported by the fact that MDBs standards have been generally well vetted; often produced after considerable consultation process and linked to or reflective of international, regional and/or national legislation, as well as generally accepted industrial standards. More specifically, the standards have legal standing because they are usually included within project financing agreements as legally binding on the borrower or recipient[10].

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5 For more information about the CIFs see: [8].

6 For more information about the carbon funds see: [9].

7 By decision of the UNFCC COP, the UNFCCC has two financial mechanisms, established under Article 11 of the Convention, the Global Environment Facility (GEF) and the GCF. The GEF was established under the UNFCCC as the first financial mechanism of the Convention, but it appears that it will not provide the same degree of large-scale investment finance that is envisioned under the GCF.

8 The Asian Development Bank is one of the recently accredited MDBs, see: [10].

9 This recommendation is to last until the GCF establishes its own such standards.

10 Thus, while there are frequent references to environmentally-friendly or climate-friendly standards in today's world of investment, one can generally rely on the published "standards" of MDBs to be considered as requirements, and not voluntary. Having said this, to be certain as to the binding environmental standards applicable to a specific project it is

The fourth reason relates to the cumulative impact of these standards due to their potential harmonizing effect among both MDBs and bilateral funding agencies. Governments have encouraged MDBs and other sources of development finance to try to harmonize their standards. Aid harmonization and effectiveness is seen to work best when MDBs collaborate and try to apply similar standards, especially given the common application today of joint or parallel financing among MDBs and other bilateral agencies for the same project [13,14][11]. Without the use of a "common approach" to standard setting, projects can be delayed and borrowers can face the frustration of trying to apply multiple standards to the same project.

Fifth, the application or promulgation of MDB standards can influence the direction of developing country legislation. Thus, developing countries may look to the MDB standard as a stepping stone to modernize their legislation while also allowing their legislation to be harmonious with conditions that the financial community might be setting. Given that most developing countries obtain finance with one or more MDBs, setting their legislation in a way that dovetails with MDB standards can also be an efficient way of avoiding duplication. The emergence of the GCF and its requisite environmental and social standards may provide further incentive toward standards harmonization.

While there are incentives to apply MDB climate related standards and to harmonize them with domestic environmental legislation, some developing countries have enunciated competing views.

First, they urge that these standards not become a form of developed country imposed "conditionality" or that they make the cost of borrowing unaffordable for developing countries. If either is the case, some developing countries may contend that these standards run afoul of the principle of "common but differentiated responsibilities" [15][12]. Based on this principle, they may contend that the MDB standards are asking developing countries to assume a cost or responsibility that does not recognize, or is inconsistent with, their status as countries whose economic growth needs priority.

This point about "differentiation" is illustrated by the higher standard of living developed countries have been able to achieve largely based on extensive fossil-fuel consumption, with current per capita carbon consumption significantly above that projected for even the fastest developing country. If climate standards are perceived to be imposed as "green conditionality", they may deepen the "lack of trust" noted to exist between developed and developing countries. This is particularly so based on a "lack of appreciation for each other's domestic political commitments and constraints", as well as a "history of bad faith in the making and implementation of global commitments on development, climate and institutional reform" ([16], p. 158).

A second and related point is the issue of competitiveness. If the application of MDB standards requires more expensive technology in order to comply with requisite mitigation measures, the project's output and production costs may also be higher, thereby potentially making its goods less competitive in the global market place. Costs might also be higher because, unlike in developed countries, when climate impacts are assessed in developing countries, they may have to assess their projects against two

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always important to study the exact text of the standard at issue and to refer to the MDB specific institution instructions for clarity, as well as the project based legal agreements.

[11] The Paris Declaration on Aid Effectiveness and the Accra Agenda for Action promote harmonization as a tool to achieve development effectiveness. See: [13,14].

[12] UNFCCC Article 3 Paragraph 1. See [15].

sets of standards—that of their own relevant legislation (where it exists), and that of the MDB. To some developing countries, this may appear to be unnecessary redundancy, raises costs, and does not pay adequate deference to principles of development finance moving toward the use of country systems[13].

On the other hand, some of the world's largest developed economies continue to see a key role for MDBs in addressing climate finance. For example, the G-7 recently stated as follows:

> "We recognize the potential of multilateral development banks (MDBs) in delivering climate finance and helping countries transition to low carbon economies. We call on MDBs to use to the fullest extent possible their balance sheets and their capacity to mobilize other partners in support of country-led programmes to meet this goal" ([17], p. 17).

Having touched on these competing interests, one can easily see that standard setting can be a complex and highly scrutinized process. However, it is undeniable that climate standards are gaining prominence in the deployment of development assistance, and that the global community seems to be galvanizing around a strengthened and renewed commitment to address climate change. Therefore, it makes sense to discuss climate standards' content and scope, as well as their place in the changing international climate change regime.

2. MDBs Climate Standards and Environmental Assessment

2.1. Focus on World Bank—The Largest MDB

All MDBs recognize the importance of addressing climate change as part of project finance. Almost all of them have either updated or planned to update their climate related standards. As the oldest and largest MDB, the World Bank [6] provides about fifty percent of the total funding to developing countries by MDBs. The Bank was among the first to set environmental standards, and has long recognized that it is important to consider "global issues" such as "climate change" when it comes to project finance. This recognition is explicitly set forth in the Bank's operational policy on Environmental Assessment. Operational Policy 4.01, issued in 1999 [18][14], requires that projects financed by the Bank be screened at their inception to see if they have the potential to adversely impact the environment. When they have that potential, they must carry out an environmental assessment. Where relevant, OP 4.01 includes "climate change" among "global environmental issues" to be included within the scope of environmental assessment ([18], para. 3). The assessment of climate change related impacts may include consideration of both mitigation and adaptation.

In 2012, the World Bank began a long-awaited process of updating and reviewing its environmental and social "safeguard" policies, including OP 4.01. In doing do, the World Bank identified "climate change" as one of the seven "emerging areas" that it would address during this process, beginning with a first round of consultations. Thus, in April 2013, the Bank convened a meeting of climate experts to

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[13] The Paris Declaration and Accra Agenda for Action also specify grounds under which development finance could move toward the use of borrower countries legal and institutional systems in place of all or some of development agency policies and standards. See: [13,14].

[14] The policy states that "EA takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and trans-boundary and global environmental aspects. EA considers natural and social aspects in an integrated way". See: [18].

come to Mexico City to make recommendations about how the updated safeguard policies might address climate change. Among the many recommendations, several addressed the process of impact assessment and project implementation. The recommendations covered a wide range of topics, including going beyond the safeguards. However, as related to OP 4.01, the recommendations included that it should be strengthened to, *inter alia*, ([19], p. 110):

- Require the use of full life-cycle accounting;
- Prioritize end-use resource efficiency improvements;
- Assess the climate resiliency of supported projects and the impact of projects and programs on the climate change resilience and adaptive capacity of local communities;
- Require clients to manage the risks to the project and its impacts on local communities and ecosystems in a changing climate;
- Ensure coherence between World Bank supported initiatives and national climate strategies;
- Quantify the emissions of long-lived greenhouse gases and short-lived climate pollutants of the project, and account for their costs;
- Refuse to support projects that net-produce hydrofluorocarbons;
- Adopt rigorous efficiency standards for the plant and equipment of the projects it supports,
- Apply the "mitigation hierarchy" to issues of resource efficiency, energy use, and emissions;
- Require the use of Best Available Technology as part of the mitigation hierarchy;
- Establish criteria to shift from fossil-fuel dependent development paths and prioritize support for low and no-carbon initiatives, including off-grid and mini-grid renewable energy, and improved end-use resource efficiency where regulations and/or market distortions incentivize throughput and investments in fossil fuel-based supply expansion.

The first round of consultations ended in July 2014, and a first draft of the proposed Environmental and Social Framework (ESF) was released. In August 2015, a second draft of the ESF was released in August 2015, following another round of consultations, reported to be the most extensive consultations in the history of the World Bank. The second draft takes into account a number of the suggestions from the climate expert group. For example, it proposes to explicitly require that a project's "environmental and social assessment, informed by the scoping of the issues, will take into account all relevant environmental and social risks and impacts of the project, including:…(i) those defined by the World Bank Group's Environmental Health and Safety Guidelines; (ii) related to community safety (including dam safety and safe use of pesticides); (iii) related to climate change and other transboundary or global risks and impacts…" [20][15].

Moreover, the draft proposes that "[t]he environmental and social assessment will consider potential project related transboundary and global risks and impacts, such as impacts from effluents and emissions, increased use or contamination of international waterways, emissions of short- and long-lived climate pollutants, climate change mitigation, adaptation and resilience issues, and impacts on threatened or depleted migratory species and their habitats" [20].

[15] Draft Environmental and Social Standard No. 1 Assessment and Management of Environmental and Social Risks and Impacts, paragraph 26 (a). See: [20].

On mitigation, the draft proposes specified pollution management measures, including a requirement for "resource efficiency measures" and that "the Borrower will consider alternatives and implement technically and financially feasible and cost-effective options to avoid or minimize project-related air emissions during the design and operation of the project" [20][16]. These emissions are to include both short and long-lived climate pollutants, expressly including "black carbon" [21][17].

Similar to recent environmental policy revisions of other MDBs, the proposed new framework also includes reporting requirements for GHGs, though with a slightly different approach by not, at least at this stage, including a specific quantity at which reporting begins[18]. Thus, "[f]or projects that are expected to produce GHG emissions in excess of the threshold established by the Bank of CO_2-equivalent annually, the Borrower will, where technically and financially feasible, estimate (a) direct emissions from the facilities owned or controlled within the physical project boundary; and (b) indirect emissions associated with off-site production of energy used by the project. Estimation of GHG emissions will be conducted by the Borrower annually in accordance with internationally recognized methodologies and good practice" [20]. This means that the Bank would annually establish the threshold beyond which projects should report their emissions rather than fixing a threshold in the ESF.

The proposed "ESF" was presented on 24 June and 1 July 2015 to the World Bank Board's Committee on Development Effectiveness (CODE). The draft was not endorsed at that time and CODE has directed Management to continue to consult on the draft. As part of the public release of the draft, a statement was set forth on the Bank website which listed some fifty-two issues with the ESF that would be addressed during third round of consultations (Phase 3). Three of those issues related specifically to climate, as follows:

1. The relation between provisions on climate change in the ESF and broader climate change commitments, specifically UNFCCC;
2. Proposed approaches to measuring and monitoring greenhouse gas (GHG) emissions in Bank projects and implications thereof, in line with the proposed standard, including determining scope, threshold, duration, frequency and economic and financial feasibility of such estimation and monitoring; and
3. Implications required for the Borrower of estimating and reducing GHG emissions for Bank projects, in line with the proposed standard.

The third phase of consultation is now under way, and is expected to last at least into 2016 at which time a new draft would be prepared and presented to CODE. Meanwhile, the Bank continues to increase its amount of its climate investments, committing over $ 11 billion during the 2014 fiscal year, with the majority of it for "climate-friendly investments in agriculture, transportation and energy" [22]. To these investments, the Bank applies and will continue to apply its current set of safeguard policies. While the updated standards remain in draft, the attention to climate during this process provides a good example on how climate change has gained prominence in the design of development finance standards. The

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[16] Draft Environmental and Social Standard No. 3 Resource Efficiency and Pollution Prevention and Management, paragraph 15. See: [20].

[17] For more information on black carbon, see: [21].

[18] As shown below, some other MDBs use a specific number of tons of carbon dioxide emitted per project as the trigger for when reporting if required.

detail that climate-related standards are achieving within the broader context of MDBs' environmental and social standards is clearly illustrated in the draft ESF.

2.2. Some MDB Approaches to Assessing Climate Impacts

While an authoritative view on the detail and manner of application of other MDB environmental and social standards discussed below is within the sole province of the MDBs themselves, the next two sections of the article refer to the provisions of some standards that may offer insight into how other MDBs require assessment by borrowers of climate impacts during environmental assessment. Thus, for example, according to the IFC, the identification of the risks and impacts for project finance "[…] will consider the emissions of greenhouse gases, the relevant risks associated with a changing climate and the adaptation opportunities, and potential transboundary effects, such as pollution of air, or use or pollution of international waterways" [23][19].

IFC's clients are to design projects to put in place resource efficiency measures and will consider alternatives and implement technically and financially feasible and cost-effective options to reduce project-related GHG emissions during the design and operation of the project. These options may include, but are not limited to, alternative project locations, adoption of renewable or low carbon energy sources, sustainable agricultural, forestry and livestock management practices, the reduction of fugitive emissions and the reduction of gas flaring [23][20]. Moreover, following an update to the IFC Performance Standards in 2011, IFC clients are expected to annually report on emissions of more than 25,000 tons CO_2 per year [23][21].

Similarly to IFC, several MDBs have introduced various degrees of monitoring and reporting of GHGs as a standard requirement, along with requirements to promote the reduction of project-related GHG emissions in a manner appropriate to the nature and scale of project operations and impacts. In drawing comparisons with the current World Bank approach, it may be important to note that the IFC lends only to private sector clients and the other MDBs lend to both the public and private sector, while the World Bank directly lends to governments [24])[22].

The African Development Bank (AfDB) has recently revised its environmental and social standards and issued some of the most recent MDB climate-related standards [25]. The AfDB states that its policy standard will apply specific operational requirements to both the bank and the borrower with respect to assessing greenhouse gas emissions and the impacts of projects on climate change as well as climate

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[19] IFC Performance Standard 1 Assessment and Management of Environmental and Social Risks and Impacts, paragraph 7. See: [23].

[20] IFC Performance Standard 3 Resource Efficiency and Pollution Prevention, paragraph 7. See [23].

[21] IFC's client is expected to quantify direct emissions from the facilities owned or controlled within the physical project boundary, as well as indirect emissions associated with the off-site production of energy used by the project. IFC requires the client to quantify GHG emissions annually in accordance with internationally recognized methodologies and good practice. See: IFC Performance Standard 3 on Resource Efficiency and Pollution Prevention, paragraph 8 [23]. In quantifying the greenhouse gases, the IFC client is expected to consider all major sources of GHGs, including those that are not necessarily energy related, such as methane.

[22] A comprehensive comparison of MDB standards was prepared by Dr. Harvey Himberg under a consultancy for the World Bank and is available on the World Bank Safeguard Consultation website. See: [24].

change on project viability. Thus, it will screen projects both to determine the impact of climate change on the project, as well as the ability of the project to adapt to climate change ([25], p. 25)[23].

The AfDB revision also explicitly acknowledges the potential of the upcoming Paris COP to influence setting of climate standards. Even though the AfDB revised standards are purported to become effective in July 2015, the revision explicitly withholds finalizing a proposed system for GHG tracking until the UNFCCC negotiations are completed. Thus, it states that: "The Bank will develop and pilot a tool to track greenhouse gas (GHG) emissions in accordance with the provisions of the UNFCCC, without prejudging current negotiations under the Convention" ([25], p. 46)[24]. It is also reported that once the GHG tracking tool is completed, AfDB will report on GHG emissions estimated to be produced by the Bank's investments on a project-by-project basis and will report on GHG emissions (both gross and net emissions) in project documentation. The Bank will also report reductions in emissions achieved as a result of the Bank's investments ([25], p. 46).

Other MDBs also indicate that impact assessment should consider climate impacts and design projects to help manage and mitigates the same. These include the Inter-American Development Bank [26][25], the European Bank for Reconstruction and Development [27][26] and the Asian Development Bank [28][27].

Despite broad agreement on the importance of addressing climate change, efforts at creating a globally uniform or even harmonized standard can be complicated by the fact that MDB ownership is not uniform, and MDB roles and funding priorities can vary. For example, some MDBs may be heavily influenced by regional arrangements. The European Investment Bank (whose shareholders are within the European Union) states that: "The EIB supports the fight against climate change, aligning its activities with EU climate change policy" ([29], p. 22). The EIB has also pointed out that its lending policies in a number of different sectors, such as energy, water and transport are meant to be "consistent with EU climate policy and to reflect emerging climate change considerations" ([29], p. 22). Moreover, perhaps influenced by the European Union's carbon market engagement, in addition to the assessment of climate

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[23] AfDB, Operational Safeguard 1—Environmental and Social Assessment. See: [25].

[24] AfDB, Operational Safeguard 4—Pollution Prevention and Control, Hazardous Materials and Resource Efficiency. See: ([25], p. 46).

[25] For example, the IDB states, that "As part of agreed mitigation measures, the Bank may require that the borrower, where feasible and cost effective, adopt cleaner production processes, energy-efficiency or renewable energy". See: ([26], p. 12).

[26] The EBRD Performance Requirement 6 on Biodiversity states, as follows: "The assessment process will characterize the baseline conditions to a degree that is proportional and specific to the anticipated risk and significance of impacts. The baseline assessment will consider, but will not be limited to, loss of habitat, degradation and fragmentation, invasive alien species, overexploitation, migratory corridors, hydrological changes, nutrient loading, and pollution, as well as impacts relevant to climate change and adaptation". EBRD Performance Requirement 1 on Environmental and Social Assessment and Management also notes that "It may be appropriate for the client to complement its environmental and social assessment with further studies focusing on specific risks and impacts, such as climate change, human rights and gender". See: [27].

[27] The Asian Development Bank, like the other MDBs, requires in its Safeguard Requirements 1: Environment, as follows: that a project impact assessment identifies "[…] potential transboundary effects, such as air pollution, increased use or contamination of international waterways, as well as global impacts, such as emission of greenhouse gases and impacts on endangered species and habitats". See: [28].

impacts and reporting on annual carbon dioxide emissions, the EIB provides for an annual economic cost of carbon calculation [30][28], based on the amount of carbon savings possible due to project design.

2.3. Some MDB Approaches to Managing Climate Impacts

In addition to taking climate change into account as part of environmental assessment, MDBs have established measures that they expect borrowers to carry out in order to manage and mitigate the impact of emissions during project implementation. When carrying out environmental assessment, borrowers are directed to refer to the World Bank Group's Environmental, Health and Safety Guidelines [31][29]. The EHS Guidelines describe pollution prevention and abatement measures and emission levels that are normally acceptable to the Bank, such as the specific recommended emission level for Thermal Power Projects ([32], p. 8)[30]. At the same time, the World Bank and IFC allow, in certain circumstances, that "taking into account borrower country legislation and local conditions, the EA may recommend alternative emission levels and approaches to pollution prevention and abatement for the project" [18][31].

For the most part, the Guidelines lay out types of processes that can be used to address pollution control. As it pertains to climate, the Guidelines provide measures that can help reduce both direct and indirect greenhouse gas emissions. For example, the Guidelines recommend considering the following recommendations to reduce and control greenhouse gases: carbon financing, enhancement of energy efficient, protection and enhance of sinks and reservoirs of greenhouse gases, promotion of sustainable forms of agriculture and forestry; promotion, development and increased use of renewable forms of energy; carbon capture and storage technologies; and limitation and/or reduction of methane emissions through recovery and use in waste management, as well as in the production, transport and distribution of energy (coal, oil, and gas) ([31], p. 10).

In addition to pollution control measures, some MDBs have recently included provisions on reporting of GHGs. For example, the EBRD requires that "[f]or projects that currently produce, or are expected to produce post-investment, more than 25,000 tonnes of CO_2 -equivalent annually, the client will quantify these emissions in accordance with EBRD Methodology for Assessment of Greenhouse Gas Emissions. The scope of GHG assessment shall include all direct emissions from the facilities, activities and operations that are part of the project or system, as well as indirect emissions associated with the production of energy used by the project. Quantification of GHG emissions will be conducted by the client annually and reported to EBRD" [27][32].

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[28] According to the EIB, this "economic cost" takes into account the long term costs of meeting carbon emission targets, and is distinct from a "financial cost of carbon, such as the spot price [of carbon] on traded markets, which may be used in the [project's] financial analysis" [30].

[29] World Bank Group Environment, Health and Safety Guidelines (EHSGs) have replaced the 1998 Pollution Prevention and Abatement Handbook (PPAH). These Guidelines identify acceptable pollution prevention and abatement measures and emission levels in a Bank financed project.

[30] For specific recommendations for CO_2 emissions from thermal power plants, see "Table 4—Typical CO_2 emissions from thermal power plants". See: ([32], p. 8).

[31] World Bank's Operational Policy 4.01 on Environmental Assessment, paragraph 6. See: [18].

[32] The EBRD Performance Requirement 3 Resource Efficiency and Pollution Prevention and Control, paragraph 15. See: [27].

Similarly, the EIB requires GHG quantification for a range of projects, while also requiring projects be assessed for their carbon footprint, their climate vulnerability, and their carbon credit potential ([30], p. 45)[33]. The Asian Development Bank (ADB) appears to use a similar approach, requiring promotion of GHG emission reduction as appropriate, as well as quantification and monitoring of both direct and indirect GHG emissions. ADB also expects its clients to look for "cost-effective options" at offsetting emissions at the project level. However, unlike the EBRD, ADB uses 100,000 tons as a benchmark ([28], p. 38)[34].

3. Setting Mitigation Standards Post-Paris

As the foregoing demonstrated, the design, adoption and implementation of climate-related standards has been evolving. To this point, the evolution has generally operated without having to directly reference in the standards detailed provisions of the UNFCCC. While MDBs generally expect the assessment of projects to take into account the international treaty obligations in the country in which the investment is taking place, the climate treaty regime has not included explicit obligations geared to operate at a project level, especially for developing countries. However, this year marks an important juncture for the UNFCCC and the future of the international climate change regime in general, as the process of deciding the framework of the Post-Kyoto agenda should come to conclusion at COP 21 in Paris. This process formally started at COP 17 in Durban during which the Parties to the UNFCCC decided, *inter alia*, the following:

> "...to launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties, through a subsidiary body under the Convention hereby established and to be known as the Ad Hoc Working Group on the Durban Platform for Enhanced Action;[…]

and

> ....that the Ad Hoc Working Group on the Durban Platform for Enhanced Action shall complete its work as early as possible but no later than 2015 in order to adopt this protocol, another legal instrument or an agreed outcome with legal force at the twenty first session of the Conference of the Parties and for it to come into effect and be implemented from 2020" [33].

Related to these decisions, the Parties then decided at COP 19 in Warsaw that both developed and developing countries should lay out their binding commitments to contribute to achieving the objectives of the Convention, particularly the ultimate objective under UNFCCC Article 2 to stabilize GHG emissions "at a level that would prevent dangerous anthropogenic interference with the climate system".

In support on those commitments, it was decided to issue an invitation for the submission of "intended nationally determined contributions", referred to as "INDCs". The decision stated that the COP invited:

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[33] EIB Environmental and Social Handbook, Climate-Related Standards. See: ([30], p. 45).

[34] Thus, according to the ADB, the "significance threshold to be considered for these requirements is generally 100,000 tons of carbon dioxide equivalent per year for the aggregate emissions of direct sources and indirect sources associated with electricity purchased for own consumption". ADB Safeguard Requirements 1: Environment. See: ([28], p 38).

> "[…] all Parties to initiate or intensify domestic preparations for their intended nationally determined contributions, without prejudice to the legal nature of the contributions, in the context of adopting a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties towards achieving the objective of the Convention as set out in its Article 2 and to communicate them well in advance of the twenty-first session of the Conference of the Parties […]" [34].

Put succinctly by the World Resources Institute, "INDCs are the primary means for governments to communicate internationally the steps they will take to address climate change in their own countries. INDCs will reflect each country's ambition for reducing emissions, taking into account its domestic circumstances and capabilities. Some countries may also address how they will adapt to climate change impacts, and what support they need from, or will provide to, other countries to adopt low-carbon pathways and to build climate resilience" [35]. INDCs also represent steps toward a binding commitment that can build upon the voluntary nature of nationally appropriate mitigation actions (NAMAs) that developing countries agreed to launch starting in 2007 [36][35]. The steps set out in INDCs are likely to include measures for policies, programs or projects within their national boundaries. At the time of this writing, 28 countries and the European Union have submitted their INDCs [37].

In light of the potential relationship of the INDCs with country programming, one of the issues raised during discussion of the proposed ESF at the World Bank was how the ESF's climate-related standards would relate with the Paris Agreement. For example, following the release of the draft ESF, one Executive Director issued a statement that included the following: "The standards on monitoring the emission of greenhouse gasses should not impose commitments on borrowers which go beyond the agreements reached by parties at the UNFCCC" [38][36].

It is too early to know the relevance of INDCs to the setting of climate standards. To some degree, their relevance may depend on how they are integrated into national law. Moreover, as noted above, the INDCs are overarching national instruments and, to this stage, have not seemed to include project specific requirements. However, even now, we can glean from some of the submissions the potential for important and productive synergies between MDB project standard requirements and the INDCs. For example, China intends to include in its actions by 2030 that it would "lower carbon dioxide emissions per unit of GDP by 60% to 65% from the 2005 level" and "increase the share of non-fossil fuels in primary energy consumption to around 20% ([39], pp. 3–4)[37]. Furthermore, when it comes to eventually setting climate related standards, China's INDC also states that one of its measures will be "[t]o research and formulate greenhouse gas emission standards for key industries" ([39], p. 6).

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[35] A discussion during a UNCCC COP side event in July 2014 concerning the relationship between INDC and NAMAs summarized key issues as follows: (1) NAMAs prove to be a successful mechanism to support mitigation as well as meeting of development goals in developing countries; (2) It is important to build on the success achieved so far and to maintain enthusiasm. Providing finance at scale is crucially important here; and (3) NAMAs are useful to inform the INDC process and the negotiations, but progress could be slowed if they became part of the political discussion. See: [36].

[36] Statement made by Mr. Subhash Chandra Garg, Executive Director for Bangladesh, Bhutan, India and Sri Lanka, at the Committee on Development Effectiveness on 24 June and 1 July 2015 on ESF. See: [38].

[37] See English version [39].

As another example of how an INDC will spur action via national law, Kenya's INDC notes that along with its submission to the UNFCCC, it was also developing a Climate Change Bill, which, if adopted by Parliament, would, as national law, enable a Climate Change Council to, among other things, in collaboration with relevant government and non-governmental agencies, and after the conduct of relevant research and studies, (i) set targets and coordinate actions for the reduction of greenhouse gas; (ii) identify and coordinate the implementation of low carbon and green growth strategies; and (iii) set targets relating to and promote the development of carbon markets [40][38].

Thus, the developments at Paris and the evolving approach of MDBs should help support progress toward more climate friendly investments. However, developing countries have made clear that achieving this goal, as well as the goals associated with the INDCs, requires fulfillment of pledges by developed countries of finance and technology. Although it may be premature to know the interaction between the INDCs and MDB climate-related standards, it is clear that reliable climate finance will be a key element of the equation.

4. Conclusions

MDB standards have increasingly sought to address the challenge of climate change. While MDB requirements vary, they range from screening projects for possible climate risks and impacts, assessing projects' potential to generate climate mitigation and adaptation, to more specific commitments on greenhouse gas emissions reporting. This "evolution" in MDB standards is especially important because of their role in supporting the development and infrastructure needs of developing countries.

MDBs have developed climate-related standards within the broader context of the environmental and social standards applicable their operations at the same time that climate change negotiations follow their course. Consensus on a course of action within the UNFCCC is not an easy task, as climate change involves conflicting views on issues of science, policy, justice, economy and finance. However, at COP 21, countries are expected to show enough "climate ambition" to be translated into the Paris Agreement.

A major aspect of that ambition, INDCs can play an important part in the post-2015 agenda. However, they must be suitably enshrined within the Agreement and supported by the ensuing finance. Developing countries have been very clear and vocal in their need for assistance to implement their climate policies, including as stated in their INDCs. MDBs have been responsive during this discourse, and are expected to lead as an important source for climate finance. MDB finance should also serve as catalyzer to attract other financial sources. It is paramount, however, that the reliability and consistency of financial flows to developing countries will be an important element in the foreseeable interaction between INDCs and MDB climate-related standards.

If finance is available to support climate friendly infrastructure, it is important to note that the MDBs with standards in place today will not be the only major source of project finance for development. MDBs have taken note of new institutions, such as the Asia Infrastructure Investment Bank, expected to begin operation in November 2015 with reports of pledged capital already at about one half that of the World Bank. As with all the MDBs, many will be watching to see how the AIIB's commitment to infrastructure finance aligns with its commitment to environmentally and social sound finance.

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[38] Kenya's Climate Change Bill 2014, at section, 5 (k) (i). See: [40].

Finally, it is important to stress that the setting and application of climate-related standards is only the first challenge in assessing and managing the impact of infrastructure on the environment and the climate. Perhaps the greater challenge is to provide the skills, sustained funding, and political commitment by all parties to ensure their successful implementation.

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Conflicts of Interest

The views presented in this article are those of the author alone, and do not represent the views of the World Bank Group, or any part of the World Bank Group, its directors, officers, or staff.

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