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REPORT OCTOBER 2019

BANKING ON ASIA

ALIGNMENT WITH THE PARIS AGREEMENT AT SIX DEVELOPMENT FINANCE INSTITUTIONS IN ASIA

SONIA DUNLOP, JAMES HAWKINS, KATE LEVICK, DILEIMY OROZCO, ISKANDER ERZINI VERNOIT AND HELENA WRIGHT

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E3G is an independent climate change think tank accelerating the transition to a climate safe world. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere. In 2018 E3G was ranked the fifth most globally influential environmental think tank for the third year running.
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Shift South East Asia (Shift SEA)
This briefing is part of the Shift Southeast Asia (Shift SEA) project which encourages the shift of financial flows away from fossil fuels into low carbon energy in Vietnam, the Philippines and Indonesia by engaging with the relevant stakeholders to support the adjustment of national policymaking, investment frameworks and international financial institutions' strategies in favour of sustainable energy solutions. More information is available **on the E3G website**.

Acknowledgements

E3G would like to acknowledge the following people who kindly took the time to review all or part of this paper:

Ian Cochran, i4CE; Jon Sward, Bretton Woods Project; Sebastian Wienges, GIZ; Ichiro Sato, WRI; Henry Thorp; Florence Mazzone, SEforAll; Doddy Sukadri, YMH; Devendra Rana, CAN International; Ma Xinyue, Boston University; Alex Doukas, OCI, Yuki Tanabe, JACSES and staff at E3G including Taylor Dimsdale, Lisa Fischer, Shane Tomlinson and Claire Healy.

E3G would like to particularly thank staff at ADB, AIIB, JICA and the World Bank Group for their extensive comments and the considerable amount of time they devoted to reviewing the content of this paper. CDB and KDB were contacted on a number of occasions in multiple languages but did not provide feedback on the report.

This project is part of the International Climate Initiative (IKI) programme. The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag. More information at **www.bmu.de/en.**

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Supported by:

Federal Ministry for the
Environment, Nature Conservation,
and Nuclear Safety

based on a decision of the German Bundestag

Thanks also to the **KR Foundation** for their support for this research.

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FOREWORD

By Christiana Figueres, former Executive Secretary of the UN Framework Convention on Climate Change (2010 to 2016), and Convenor, Mission 2020.

The world is banking on Asia.

The Asia-Pacific region is at the centre of megatrends that are reshaping the global economy. Heightened perceptions of geopolitical risk, intensifying competition for scarce natural resources, rapid advances in technology and increasing environmental stresses are all drivers of unprecedented change.

In these uncertain times, the countries of the Asia Pacific are facing critical choices about how to plan for their next phase of development. Urgent and massively scaled-up investments are required to meet the demands of young and rapidly urbanizing populations, and to address the growing scourge of air pollution and climate change impacts through a commitment to pursue a new development paradigm that leapfrogs the carbon intensity of the Industrial Revolution, and pivots towards clean, affordable, reliable and sustainable infrastructure and energy for the 21st Century.

Multilateral and bilateral development banks have an important role to play in helping Asian economies and societies prepare to be "fit for the future". They are key change agents in the transition to a climate-safe global economy for the region and worldwide.

In some cases, these development banks can act as market makers in the global financial system, using their position as knowledge holders to establish norms, set precedents and support lighthouse projects that help to reshape perceptions of what sound and sustainable development should look like. They can both catalyse investment in green economic activity and use de-risking measures to promote an orderly transition to a safe climate future. They can work with governments to build "future proof" infrastructure, and help to redirect large-scale investment to climate-friendly projects and initiatives. And most importantly, they are well-placed to help governments and investors to think and plan for the long-term, making them ideal facilitators of real climate leadership.

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Last year, the six banks analysed in this report – the Asian Development Bank, Asian Infrastructure Investment Bank, China Development Bank, Japan International Cooperation Agency, Korea Development Bank and the World Bank Group – together disbursed over USD 1.7 trillion in loans[1]. Among these major lenders and investors, the China Development Bank dwarfs its peers in terms of scale and wields significant power capable of being leveraged to shift financial flows towards sustainable infrastructure[2].

Multilateral and bilateral development banks also have unique power and influence to catalyse other public and private financial flows in all regions of the world, and none more so than in the rapidly emerging economies of the Asia region[3]. Where they lead, the private sector is more likely to follow, in terms of geographies, technologies and business models.

Asia has huge untapped low- and zero-carbon energy and emissions reduction potential, and its efforts will shape the world's climate change mitigation response. At the same time, the region is at risk of suffering some of the most severe climate impacts and risks. Investing now in carbon lock-in[4] infrastructure and energy would put in serious jeopardy the goals of the Paris Agreement, particularly in light of recent advice from the IPCC that global emissions need to be halved over the coming decade to keep the door open to the safer limit of stabilizing the world's climate at 1.5°C above pre-industrial levels. Fatih Birol, the Executive Director of the International Energy Agency, has said that the projected growth of coal-fired power in Asia is concerning because new generation capacity would "lock in the emissions trajectory of the world, full stop." He added that, "how we are going to deal with this problem is for me the nerve centre of the climate change debate today" [5].

As institutions responsible for directing billions of dollars of public taxpayer capital, development banks must use their money for the public good, both nationally and internationally. Indeed, they have a responsibility to constantly re-evaluate the impact of their lending activities to ensure they are using this

[1] F20 Foundations Platform (2019) **Aligning G20 Infrastructure Investment with Climate Goals & the 2030 Agenda**

[2] Investment in China's Belt and Road Initiative is estimated to total USD 651.8 billion by 2030 in the 17 key recipient countries – 2% of all annual Gross Capital Formation in these countries. Source: Vivid Economics (2019) **Decarbonising the Belt and Road**

[3] I U Delikanli et al (2018) **Multilateral development banks: governance and finance**.

[4] Univeristy of Oxford Smith School (2018) **Carbon Lock-in Curves and Southeast Asia: Implications for the Paris Agreement**

[5] Financial Times (2018) **New Asian coal plants knock climate goals off course**

money consistent with public expectations and interests, including growing calls for a more ambitious response to the climate crisis.

At a time when few institutions were lending during the global financial crisis, the MDBs provided USD 222 billion in financing, which was critical to global stabilisation efforts[6]. The climate crisis demands an equivalent or even bolder response. Thankfully, all of the major multilateral and bilateral development banks, including those working in Asia, have committed to align their operations with the Paris Agreement, including its temperature goals. Rapid translation of this global objective into new bank policies, consistent with the joint MDB framework for alignment with the Paris Agreement and International Development Finance Club, is the best next step for ensuring the necessary step-change towards climate-responsible banking. And it would also complement actions being taken in other parts of the financial system to ensure its overall stability in the face of climate challenges and risks, including by the IMF[7], central banks and financial regulators[8]. At the pointy end of the spectrum is that publicly-financed development banks have a special responsibility not to finance national assets and investments at risk of becoming financially 'stranded' as a result of the rapidly accelerating climate transition.

Sound banking for the future requires that the Asian multilateral and bilateral development banks become 'climate banks' as quickly as possible. The process of operationalising a complex international agreement like the Paris Agreement into the day-to-day operations of an even more complex bank is neither simple, nor easy. But it must be done, and done quickly. This report illustrates clearly that while there are some signs of progress, none of the development banks active in Asia – including the World Bank and the Asian Development Bank – is yet fully aligned with the Paris Agreement.

Even since the adoption of the Paris Agreement in late 2015, the six institutions covered in this report are estimated to have invested a total of USD 65 billion over 2016 and 2017 in 'brown' energy[9]. It is essential that these banks share best practice and harmonise their standards to continually drive up the quality of

[6] US Department of Treasury (2019) **Multilateral Development Banks**

[7] **IMF (2019) Fiscal policies for the Paris Agreement**

[8] **Banque de France (2019) Network for Greening the Financial System**

[9] From Chapter 4 – Green-brown energy finance, figure 54: Annual fossil fuel financing pre and post-Paris Agreement. Based on E3G analysis of OCI Fossil Finance data. The figure shows the average annual investment of each bank across 2016 & 2017. This totals USD 32.5 billion. When you consider both years (2016 & 2017), the number doubles to 65 billion.

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their investments. While regarded in some quarters as unnecessary "red tape", standards and safeguards offer an avenue for ensuring that banks are operating on sound principles, and responding to the latest understanding of regional investment needs and risks, including those posed by climate change.

Multilateral and bilateral development banks have a unique opportunity to drive and accelerate the global climate transition. While early alignment of their operations with the Paris Agreement is a necessary first step, the bigger sign of progress would be proactive support for countries developing and then pursuing their own low-carbon development pathways towards a prosperous, resilient and net-zero carbon economy.

Economic growth and prosperity will only be possible and sustainable if climate change causes and impacts are properly managed, and if sound climate management is recognised as essential to sound banking. If all development banks around the world act in accordance with this principle, we will be one big step closer to achieving a socially and historically just and climate-safe planet for generations to come.

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EXECUTIVE SUMMARY

Development finance institutions across Asia are beginning to implement their commitment to aligning their financial flows with the goals of the Paris Agreement on climate change. Some have made more progress, whereas others appear to have only just begun.

This report assesses the level of Paris Agreement alignment within the Asian Development Bank, Asian Infrastructure Investment Bank, China Development Bank, Japan International Cooperation Agency, Korea Development Bank and the World Bank. It uses 10 indicators or metrics to assess progress on the various facets of climate action, including mitigation and adaptation, climate risk, greenhouse gas accounting and others.

We hope this study will therefore provide a framework for the banks, their shareholders and stakeholders to think about what Paris Agreement alignment means in practice for these institutions, and provide some pointers on areas which need to be prioritised in order to deliver the commitment to Paris goals. It is useful to also note that the Paris Agreement represents the combined will of its Parties, providing a legal framework under which additional actions or even new goals may be agreed in the future. The process of Paris alignment should therefore be sufficiently flexible to cope with these moving goalposts.

The metrics or criteria we used have been categorised using the six 'building blocks' of Paris alignment as set out by the multilateral development banks in late 2018[10], as part of efforts to find a common terminology of Paris alignment: mitigation, adaptation, climate finance, policy support, reporting and internal activities. The conclusion of the analysis is presented in the colour-coded table below. The table shows that the banks covered in this report are making relatively good progress in promoting green finance and incorporating climate risk, whereas fossil fuel policies, green-brown energy ratios and energy efficiency standards are proving more challenging.

In order to help development finance institutions consider all options when considering how to operationalise the Paris Agreement, the 'Tools for Paris

[10] World Bank et al (2018) **The MDBs' alignment approach to the objectives of the Paris Agreement: working together to catalyse low-emissions and climate-resilient development**

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alignment' section lists a selection of policies and measures that development finance institutions from around the world are considering, implementing or could implement as part of their alignment with Article 2.1.c. It is for each bank to consider which tool works best for them, and how to adapt them to their own circumstances. Ideas include technical assistance focused on ensuring a socially just transition, a "do no harm" to the Paris goals and working with financial intermediaries to put in place decarbonisation plans.

The analysis of the six Asian banks shows a mixed picture, with no one bank fully Paris aligned across all ten indicators. All banks have areas where they need to accelerate progress. This report provides both bank-by-bank summaries of performance on the various metrics, as well as topic-by-topic chapters that contain detailed analysis on the various indicators.

For each bank we have produced three recommendations for the priority next steps for Paris alignment at that institution.

The Asian Development Bank should use its forthcoming energy policy review to put in place a goal for 100% zero-carbon lending; increase its finance for climate adaptation; and set an ambitious energy efficiency target.

The Asian Infrastructure Investment Bank should boost its climate risk management processes across its portfolio; establish an overarching climate change strategy; and consider setting up climate-related technical assistance programmes.

The China Development Bank should take measures to re-balance its green-brown energy lending ratio which appears[11] to be heavily skewed towards fossil fuel projects; include climate risk considerations in its regular country risk reports; and implement a fossil fuel exclusion policy.

The Japan International Cooperation Agency should phase out its proactive support for coal-fired power stations; insist on its own energy efficiency standards rather than giving way to national standards; and properly align its technical assistance with a Paris-compliant pathway.

[11] According to the available data sources used in this report. See more information in the Chapter on Green-brown ratios.

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The Korea Development Bank needs to put in place a climate strategy; add fossil fuels to its exclusion lists; and fully implement the environmental and social risk management framework that it has signed up to under the Equator Principles.

The World Bank needs to strive for more transparency in, and establish targets on, its greenhouse gas emissions; adopt more stringent energy efficiency standards; and take steps to address its poor green-brown energy lending ratio.

A draft of this report was shared with all the banks and their comments incorporated where appropriate.

There is a clear need going forwards for more transparency on the various policies and measures in place at all development finance institutions but particularly at the bilateral development banks. China Development Bank and Korea Development Bank in particular have made very little information publicly available on many of the metrics covered in this report. There is also a need for more transparency and standardisation as regards the quantitative data that development finance institutions publish on climate finance and their wider operations.

Finally the report ends with some reflections on the long-term role of development finance institutions in the global financial system. There is a role for these banks in planning for the next financial crisis – which could be triggered by a climate change driver - and what the global, climate-smart response to it could be. More research and thinking is needed in this field, and E3G looks forward to engaging with key stakeholders on this topic in the future.

Figure 1: A summary of the assessment of the banks' Paris Agreement alignment

MDB Paris Alignment blocks	E3G criteria	Banks					
		ADB	AIIB	CDB	JICA	KDB	WBG
Mitigation	Greenhouse gas accounting						
	Fossil fuel exclusions						
Adaptation and resilience	Climate Risk						
Climate finance	Green-Brown energy ratio and climate finance						
	Energy efficiency						
	Promotion of green finance						
Engagement and policy development support	Technical assistance						
Reporting	Transparency of climate data						
Internal activities	Overarching climate strategy						
	Integration of climate mitigation and resilience in sectoral strategies						

Key	Not Available	Not aligned	Some Progress	Paris aligned	Trans-formational

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INTRODUCTION

This report assesses progress at six development banks active in Asia towards making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

All six development finance institutions analysed in this report – the Asian Development Bank, the Asian Infrastructure Investment Bank, the China Development Bank, the Japan International Cooperation Agency, the Korea Development Bank and the World Bank – have committed to aligning their operations with the Paris Agreement on climate change. This report provides an assessment of their progress towards meeting this commitment, and makes recommendations on how the goals of the Paris Agreement can be operationalised within these institutions.

Key findings

> Development banks in Asia are not making enough progress[12] on their pledge to align with the Paris Agreement on climate change. They should all invest more resources and political capital into internal climate-related reform. Areas where more work is needed include overarching climate strategies, fossil fuel exclusion policies and energy efficiency standards.

> The World Bank, the Asian Development Bank and the Japan International Cooperation Agency have begun their process of Paris alignment, and can be judged to have aligned in some but by no means all measures of climate action. The Asian Infrastructure Investment Bank, as a new institution, is still in the process of setting up its policies and strategies but needs to accelerate this work.

> China Development Bank and Korea Development Bank appear to have only just begun their process of Paris Agreement alignment, despite having made this commitment in December 2017, almost two years ago. There is a clear lack of publicly available information on these two institutions which hampers research and analysis.

[12] Various levels of Paris Agreement alignment are defined in section Annexe 1: "Definitions of levels of Paris alignment". See the Bank Dashboard Summaries for a summary of where each bank has not made sufficient progress. Furthermore, other studies such as I4CE (2019) Framing the alignment of financial institutions strategies with the Paris Agreement define alignment as having three elements: do no harm, maximise contribution to climate goals and support transformational change.

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RECOMMENDATIONS FOR ALL ASIAN DEVELOPMENT BANKS

The analysis and information gathered in this report was used to develop a series of priority recommendations for the banks, listed in the bank dashboards below, considering the information across all categories[13]. This includes recommendations on how banks that are already leading the way on a particular area can continue to drive forward progress.

We recommend that the banks begin to self-assess and self-report their existing level of alignment with the Paris Agreement in order to ensure a robust implementation of their commitments in this area. We have suggested a series of indicators that can be used as metrics to assess Paris Agreement alignment, and this list can be added to and refined as thinking progresses.

All the banks should also, as a first step and as part of their minimum standards, sign up to the Equator Principles on responsible investment and its minimum environmental and social standards and risk management framework[14][15], as Korea Development Bank has done. Note that the Equator Principles do not represent full alignment with the Paris Agreement, but should serve as a minimum starting point. Furthermore the Equator Principles are being revised to bring them in line with the Paris Agreement. The revised draft Equator Principles published for consultation earlier this year[16] states that "we recognise that [financial institutions] have a role to play with respect to the 2015 Paris Agreement as well as efforts to improve the availability of climate-related information, such as the Task Force on Climate-Related Financial Disclosures (TCFD) Recommendations".

Across the banks, there is very little transparency in terms of publicly reported project-level data. Data on fossil fuel finance spending was therefore drawn from

[13] We engaged with MDB representatives in finalisation of these recommendations in order to ensure the recommendations had not already, or were planned to be, carried out by the MDBs.

[14] Equator Principles (2013) **The Equator Principles III**

[15] The Equator Principles are based on the IFC's Performance Standards, as stated at IFC **Equator Principles Financial Institutions** (although it would appear that the World Bank has not formally signed up to the Equator Principles itself, as shown here Equator Principles Association **Members and reporting**. The World Bank does apply the IFC's Performance Standards to IDA/IBRD projects that are operated by the private sector[15]). More than 90 banks and financial institutions have voluntarily adopted the **Equator Principles**, which are based on **IFC's Performance Standards**.

[16] Equator Principles (2019) **Draft for consultation – published in June 2019**

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secondary databases. To improve transparency on climate-related disclosures it would be helpful if the banks' annual reports and joint reports could include such information in the future. Furthermore, in line with the Task Force on Climate-Related Financial Disclosures (TCFD)[17], banks should assess and report their exposure to high-carbon assets. The banks should also disclose disaggregated data on the climate finance instruments used and extent of private finance mobilised (something the ADB has already done).

Another related point is a need for the definition of climate finance to be further standardised. Chapter 4 on Green-brown energy ratios shows how some institutions such as JICA have included finance to coal power plants as part of climate finance, something which can be viewed as misleading.

Since country pledges under the Paris Agreements are insufficient to limit global temperature rise to 2°C, we recommend that development banks should go beyond offering support for Paris goals, and offer technical assistance on Nationally Determined Contributions and long-term pathways that are Paris-compliant and aligned with the goal of achieving net zero greenhouse gas emissions. The World Bank has already begun doing this in some of its programmes.

On green finance, all the banks should seek to provide relevant technical assistance on greening the financial system and financing greener projects, for regulators including finance ministries, central banks and national financial institutions. This should include putting in place robust policies and incentives to build the capacity of other institutions to carry out environmental screening and 'green' their investments. In addition, DFIs should seek to create investment vehicles and financial structures that maximise private sector leverage, as well as working to help decarbonise local banks and financial institutions.

In each chapter we have made a series of topic-specific recommendations for the various banks for that metric. The top recommendations for each bank are reproduced in the bank dashboards. Of course, it is for each bank to decide which Paris Agreement alignment tools best fit their institution and operations, and they may have good reasons for having chosen to go down one route rather than another. It is for each bank to show that it has implemented its commitment to align with the Paris Agreement and that it is not doing any harm to the goals of the agreement.

[17] Task Force on Climate-related Financial Disclosures. For more information see website: **www.fsb-tcfd.org**

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HOW TO USE THIS REPORT

This report contains;

> A section with a selection of tools for operationalising the Paris Agreement in a financial institution of any kind

> 'Dashboards' for each bank under consideration summarising the findings bank by bank

> A chapter on each criteria or metric analysing in detail the work of the banks, topic by topic e.g. climate strategy, energy efficiency, technical assistance etc.

Note that this report contains all updates and announcements up until 20/09/2019. This report is to a large extent based on the structure and methodology of E3G's "Banking on Reform" report, an analysis of Paris Agreement alignment at six major Multilateral Development Banks published in 2018[18].

We welcome further comments, feedback and insight from readers in order to further develop our working going forwards. Please send these to **info@e3g.org** or one of the report authors.

[18] E3G (2018) **Banking on Reform: aligning development banks with the Paris climate agreement**

TOOLS FOR PARIS ALIGNMENT

Tear out toolkit

This section brings together some of the most common and impactful approaches[19] for development banks to boost their climate change impact and align their operations with the Paris Agreement[20]. It is intended as a 'basket of tools' from which each development bank can choose the tool that is right for them and represents the best fit with their mandate and *modus operandi*.

Figure 2: Approaches for alignment with the Paris Agreement

MDB Paris Alignment blocks	E3G criteria	Measures and tools
		Approaches for alignment with the Paris Agreement (Institutions that have implemented these approaches are in brackets[21])
Alignment with mitigation goals	Greenhouse gas accounting at project and portfolio level	• Introduce a science-based GHG emissions reduction target. (IFC) • Set a date for portfolio GHG emissions to peak by. (ADB) • Set a 1.5°C compliant pathway for absolute portfolio emissions. (FMO)[22] • Inclusion of Scope 3 GHG emissions in reporting.
	Policies to restrict finance to fossil fuels including exploration	• Establish an exclusion of all or some fossil fuel technologies (coal, oil or gas) and related infrastructure. • Set a technology-neutral Emissions Performance Standard of a certain amount of grams of CO_2/kWh, possibly with a ratcheting down mechanism. (EIB)
Adaptation and climate-resilient operations	Climate Risk	• Create processes to look at systemic or structural climate resilience across an economy and a portfolio.

[19] Big Shift Coalition (2019) **Small steps are not enough** and Germanwatch (2018) **Aligning the AIIB with the Paris Agreement**

[20] Note that as stated above the Paris Agreement is a living document and its stated goals may be updated or adapted in the future.

[21] The institutions named in brackets are a non-exhaustive list. Where many institutions implement this policy or a version of it then this is left blank to preserve the readability of the table.

[22] FMO (2018) **Deriving a 1.5C pathway for a financial institution**

MDB Paris Alignment blocks[4]	E3G criteria	Measures and tools
		Approaches for alignment with the Paris Agreement (Institutions that have implemented these approaches are in brackets)
Accelerated contribution to the transition through climate finance	Green-Brown energy ratio and scaling up climate investment in all sectors	• Report on an annual basis on the green/brown energy lending ratio within the bank to measure Paris Agreement alignment. • Set targets to phase out all 'brown' lending within a bank. • Set targets to achieve a specified percentage of lending to be classed as 'climate finance', with an ultimate target of 100% climate finance or 100% Paris compatible.
	Energy efficiency strategy, standards and investment	• Adopt an overarching 'Energy Efficiency First' principle to investments. • Ensure all investments through financial intermediaries are subject to the same energy efficiency standards as direct investments. • Incorporate efficient cooling considerations into project appraisal.
	Promotion of green finance	• Use technical assistance to engage with private investors, banks and insurers as well as public institutions and regulators to promote systemic change and green finance in recipient country.
Engagement and policy development support	Technical assistance for implementing Paris goals and national transitions	• Provide technical assistance specifically focused on ensuring a just transition in client countries. • Technical assistance to support increased NDC ambition. • Technical assistance to support long-term deep decarbonisation strategies and transitions towards net zero carbon economies.
Reporting	Level of transparency of climate related information	• Publish project-level and portfolio-level climate-related information (ADB). This should include direct and indirectly financed projects, and absolute GHG emissions.
Align internal activities	Standalone climate strategy and integration of climate in overarching strategy	• Establish a portfolio-wide criteria of "do no harm" to goals of Paris Agreement • Establish a climate finance target measured as a percentage of total lending.
	Integration of climate mitigation and resilience in key sectoral strategies	• Make climate change a core priority within sectoral strategies for energy, transport, water and urban development.
	Financial intermediaries	• Ensure all policies apply also to financial intermediaries. (EIB) • Ask all intermediaries to disclose fossil fuel exposure and apply significant restrictions on intermediaries with high exposure. • Insist that all intermediaries have decarbonisation plans.

PARIS ALIGNMENT AT DEVELOPMENT BANKS: WHAT DOES SUCCESS LOOK LIKE?

Tear out toolkit

At COP25 in Chile in December 2019 the Multilateral Development Banks are set to publish their common framework of principles for how to align with the Paris Agreement[23]. It is hoped that the International Development Finance Club (IDFC) will then build on this and adopt a similar methodology. This section sets out some ideas for what success would look like in this methodology, using Paris-aligned and transformational categories. The content of each box is identical to the last two columns of Definitions of Paris Agreement alignment table in Annex 1.

The joint process of alignment with the Paris Agreement should also lead to some collective MDB commitments, such as common approaches to fossil fuel exclusion, science-based and Paris-compliant commitments to peaking and reducing greenhouse gas emissions, and a framework on climate risk and adaptation.

In addition to the various banks meeting the various levels of the criteria, there is also a need for harmonisation and standardisation of environmental and climate safeguards and standards if the MDBs are going to have maximum impact as 'knowledge banks' in shifting financial flows. Joint commitments should be made therefore to put activities that do harm to Paris goals on a joint "non-aligned" list, and to peak and reduce MDB total portfolio GHG emissions. A common principle could also be adopted that the DFI standards, and not national environmental standards, are always used in lending, unless national standards are more stringent.

[23] EBRD et al (2019) **High level MDB statement for publication at the UNSG Climate Action Summit 22 September 2019**.

Figure 3: Benchmarks for Paris alignment

MDB Paris Alignment Blocks	E3G Criteria	Benchmarks	
		Paris-aligned	**Transformational**
Alignment with mitigation goals	**Greenhouse gas accounting at project and portfolio level**	Ambitious target to peak and reduce portfolio GHG emissions	Science-based target to reduce portfolio emissions (or better), covering both direct and indirect lending and Scopes 1, 2 and 3.
	Policies to restrict finance to fossil fuels including exploration	Commitment to ending all fossil fuel finance by 2020; already implemented exclusions on coal and upstream oil and gas	Total exclusion of fossil fuels and related infrastructure with official policy and full implementation, direct and indirect lending
Adaptation and climate-resilient operations	**Climate Risk**	Comprehensive project-level climate risk management, enhancing client resilience, and scaling adaptation finance.	Promoting project-level climate risk management, leading identification of structural needs, and catalysing broader adaptation finance flows.
Accelerated contribution to the transition through climate finance	**Green-brown energy ratio and scaling up climate investment in all sectors**	Scaling up climate investment in the energy sector and 'brown' lending at zero.	Scaling up climate investment in all sectors. 'Brown' lending at zero.
	Energy efficiency strategy, standards and investment	Energy efficiency standards across all sectors promote best available technology and identify investment needs; no carbon lock-in effects.	Energy efficiency first principle in energy, buildings and transport, including emission performance standards
	Promotion of green finance	Emerging promotion of green finance in banks, local and national institutions, insurers and regulators.	Driving systemic change across all financial actors including banks, local and national institutions, insurers, central banks and regulators
Engagement and policy development support	**Technical assistance for implementing Paris goals and national transitions**	Evidence of technical assistance programmes to implement existing NDCs, not necessarily consistent with 1.5°C	Programme to help implement Paris Agreement goals and raise ambition of NDCs, consistent with 1.5C. Supporting countries with ambitious regulatory and market reforms

MDB Paris Alignment Blocks[1]	E3G Criteria	Benchmarks	
		Paris-aligned	Transformational
Reporting	**Level of transparency of climate related information**	Full project level information available including detailed descriptions. Sub-projects of financial intermediaries are disclosed	Institutions to report to a joint MDB-IDFC project level database using the same reporting format as OECD
Align internal activities	**Standalone climate strategy & integration of climate in overarching strategy**	Comprehensive climate strategy, integration of mitigation *and* resilience in overarching bank strategy	Integration of both deep decarbonisation and resilience in strategy, roadmap for alignment with 1.5°C and strong evidence of implementation. Principle of "do no harm" to Paris goals.
	Integration of climate mitigation and resilience in key sectoral strategies	Strong evidence of integration of both mitigation and resilience in key sectors (transport, energy, water and cities)	Integration of deep decarbonisation and systemic resilience in key sector strategies

METHODOLOGY

All major MDBs and the members of the International Development Finance Club (IDFC) have made a commitment to align their financial flows with the Paris Agreement and its goals[24].

This report assesses the progress of six development banks active in Asia in aligning their financial flows with the UN's Paris Agreement on climate change. We chose these banks because they represent a large portion of the financial flows to both sustainable and unsustainable infrastructure in South East Asia, the topic of the wider project.

The Paris Agreement on Climate Change was a landmark agreement which set out a commitment to limit the global temperature rise to well below 2°C, and strive for a 1.5°C limit. It also called on parties to increase efforts on adaptation and make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development[25].

The report focuses on six major players in development finance based or active in Asia: the Asian Development Bank (ADB), the Asian Infrastructure Investment Bank (AIIB), the World Bank Group (WBG), China Development Bank (CDB), Korea Development Bank (KDB) and Japan International Cooperation Agency (JICA).

Each of the main WBG institutions were included; the International Development Association (IDA); International Bank for Reconstruction and Development (IBRD); and International Finance Corporation (IFC); though in some cases the World Bank Group is assessed as a whole due to a lack of disaggregated information.

After a multi-stakeholder process involving consultation with more than 25 experts[26], the criteria in Figure 4 below were identified[27] and were then aligned to the six building blocks of the MDB Paris alignment process. These are

[24] IDFC-MDB Statement (2017) **Together Major Development Finance Institutions Align Financial Flows with Paris Agreement**

[25] UNFCCC (2015) Paris Agreement

[26] Experts were consulted from among development institutions, civil society, government and academia.

[27] The authors used a reduced number of criteria for this report compared to E3G's previous report, Banking on Reform, due to resource constraints in undertaking this study.

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considered to be robust metrics or ways of measuring Paris Agreement alignment. We have also considered other emerging definitions of Paris alignment, including that which sees Paris alignment as having three parts: do no harm, maximise contribution to climate goals and support transformational change[28]. More information on the methodology that E3G uses to assess MDB Paris alignment is available on the E3G website[29].

Note also that our previous report, Banking on Reform, used the sixteen indicators detailed in the flow diagram in Figure 4 below. Due to time and resource constraints, this report uses only ten of these indicators. It would therefore be beneficial for future research also to cover the remaining indicators for the six Asian banks covered in this report: forests and land use; energy access and poverty; innovative instruments and mobilisation of private finance; institutional leadership and information sharing; internal carbon pricing; integration of climate change into country work. It should also be noted that we have interpreted Building Block 6 on "Align internal activities" not just as a bank's facilities and travel policy but also as its overarching climate strategy and integration of climate into sectoral strategies. Further debate is welcome on this point.

These sub-categories of indicators were informed by the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD)[30].

The next chapters take each of these criteria in turn and maps the progress of the banks against each one. The assessments are based on a combination of desk research using available literature, analysis of available datasets[31], and stakeholder consultations. According to this methodology, we have incorporated new announcements by the banks into the ranking where evidence has been provided and there was a degree of certainty about the details, while noting that forthcoming updates may raise the level of progress in several places[32]. As this

[28] I4CE (2019) *Framing the alignment of financial institutions strategies with the Paris Agreement* defines alignment as having three elements: do no harm, maximise contribution to climate goals and support transformational change.

[29] E3G (2018) Methodology and Indicators Report 1.0: Paris Agreement on climate change

[30] TCFD (2019) **Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures**

[31] Data sources included the **project-level data on climate-related development finance** self-reported by the MDBs to the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC), as well as data on projects identified as support for fossil fuels in the **Oil Change International 'Shift the Subsidies' database**. Please refer to the **E3G Briefing on Greening Financial Flows** for more information, as well as Chapter 12, for more information on data sources.

[32] For some forthcoming updates there was insufficient detail in the public domain to increase the score against the relevant metric at this stage, but we have noted where this is the case.

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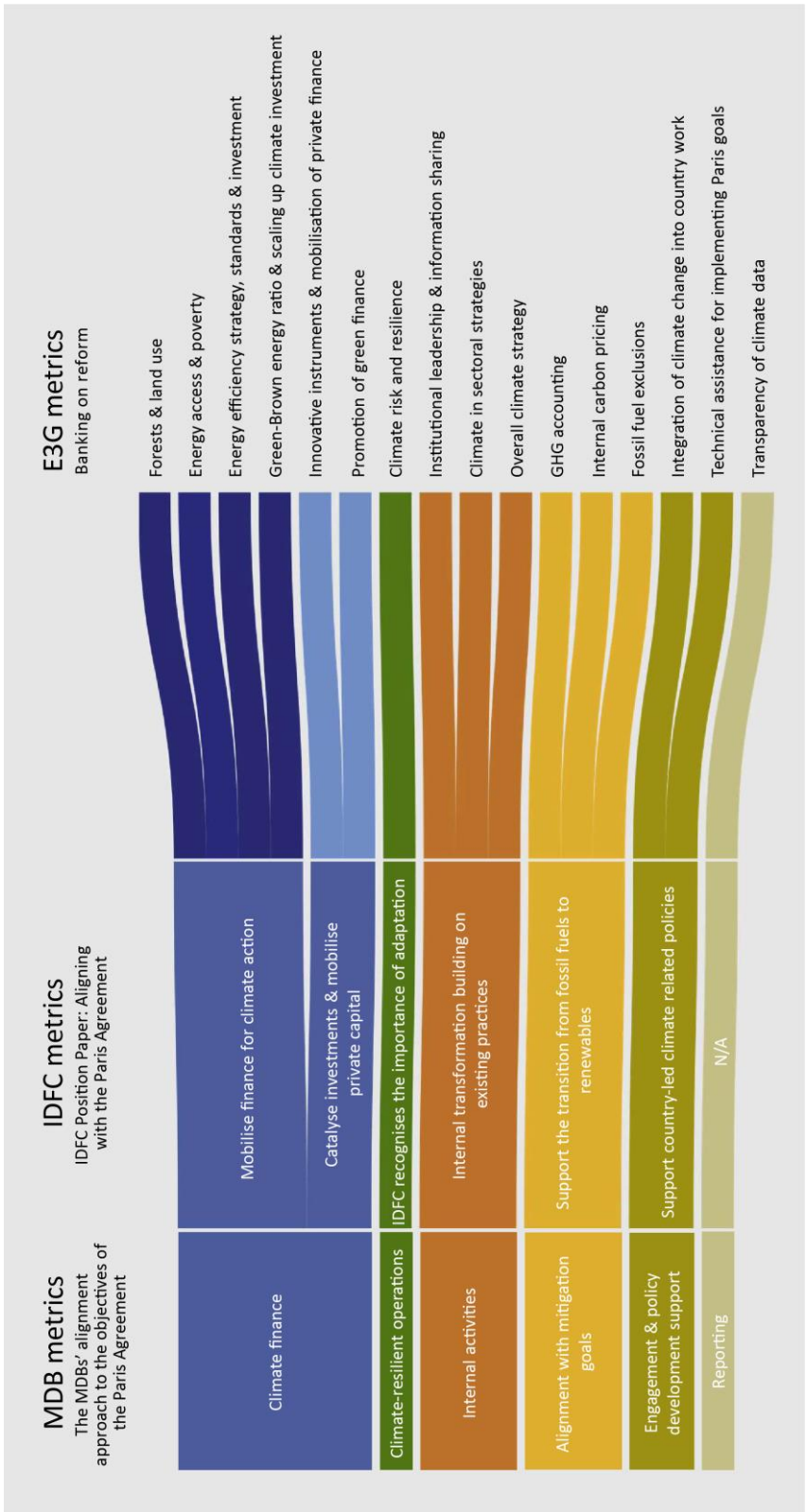
assessment has been focused on positive change, where sufficient detail was provided, we have given credit for announcements in advance of their implementation while noting that further research is needed over time and that scoring could decrease if a policy is not implemented in practice. This research has been evolving over the past 11 months, during which time several announcements have been made. As such, we have included all data where possible, and where it was robust and conclusive, but we also understand that this process would benefit from further research.[33]

[33] The authors have sought to deal with language barriers as much as possible given the resources available to us, occasionally translating documents to ensure the full information was available. However we recognise that further information may be available in the respective languages of the different institutions, and suggest that further research is necessary in this regard.

Figure 4: Flow diagram detailing the six MDB metrics, seven IDFC metrics and 16 E3G metrics of Paris Agreement alignment



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ASIAN DEVELOPMENT BANK

Founded: 1966

Mission: A prosperous, inclusive, resilient, and sustainable Asia and the Pacific.

Total commitments: USD 21.58 billion in loans and grants[34].

Headquarters: Manila, Philippines

Top shareholders: Japan (15.6%), United States (15.6%), China (6.4%), India (6.3%), Australia (5.8%)

Key moments and decisions coming up:
– Annual meetings and Board of Governors meeting (2–5 May 2020, Incheon, South Korea)
– Review of ADB energy policy (due to be concluded in September 2020).
– Internal Evaluation Department report on ADB environmental and other safeguards policy (due early 2020).
– President Takehiko Nakao's stepping down in January 2020

Summary of Paris alignment assessment: The Asian Development Bank has already made significant progress on alignment with the Paris Agreement and integration of climate change in all its operations. The overall commitment and direction have been set, the challenge is now to operationalise these in every aspect and level of the Bank's work. The Bank now needs to focus on improving its green-brown energy ratio which is currently 0.932 clean finance to 1 brown finance, fossil fuel exclusion policies, energy efficiency standards and inclusion of climate in its transport, water, cities and energy strategies.

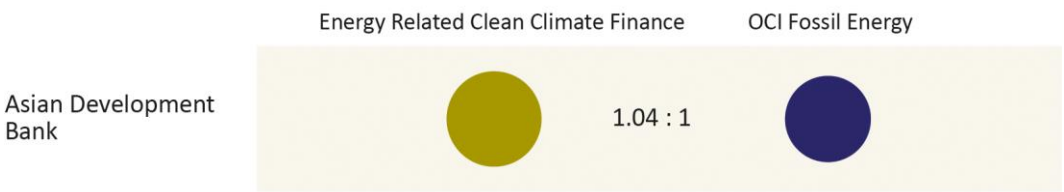
[34] ADB (2019) **Annual Report 2018**, page 2.

Figure 5: A summary of the assessment of ADB's Paris Agreement alignment

Indicator	Summary
Overarching climate strategy	Paris aligned – The climate strategy emphasises the need for moving away from the traditional demand-led model. ADB has climate finance commitments until 2030.
Integration of climate mitigation and resilience in key sectoral strategies	Some progress – All strategies consider aspects of mitigation resilience, no official coal exclusion in energy strategy.
Transparency of climate finance data	Some progress – ADB performs well on disclosure of climate finance data but demonstrates a lack of transparency on FI sub-projects.
Energy efficiency strategy, standards and investment	Some progress - Increased investment in energy efficiency priority; relatively weak standards in power generation and for financial intermediaries
Fossil fuel exclusion policies	Some progress – Oil and gas exploration is excluded; there is no official coal exclusion, however, no direct coal investment since 2013 or pipeline.
Greenhouse gas accounting and reduction	Paris aligned – ADB undertakes GHG accounting for the whole portfolio and has a target for GHG emissions to peak by 2030 at the latest.
Climate risk, resilience, and adaptation	Paris-aligned – Dedicated strategy for climate risk at project level. Climate strategy takes beyond-project approach to client resilience
Green/brown energy finance and scaling up climate investment	Some progress – scaled up climate financing but low green-brown ratio close to 1:1
Technical assistance for implementing Paris goals	Some progress – ADB is working to support implementation of Paris goals through the Nationally Determined Contributions (NDC) Advance Platform. However, it is also providing technical assistance in support of fossil fuels.
Promotion of green finance	Some progress – ADB is helping to drive green bond markets through its own issuance and its support of other issuers.

Bank green-brown energy ratio:

Figure 6: ADB's energy-related clean finance versus fossil finance (2016–17 average)



***Source**: E3G analysis of climate-related finance data from OECD-DAC and fossil finance data from OCI*

Paris-aligned project case study: The Sarulla Geothermal Power Generation Project, North Sumatra, Indonesia where three geothermal power generation units produce a total output of about 320 MW[35].

Misaligned project case study: A USD 305 million loan for what will be Indonesia's largest combined cycle gas turbine power plant producing 1.76 GW, at Cilamaya, Karawang, West Java.[36]

Recommendations:

> The Asian Development Bank should use the forthcoming energy policy review to set a target date for 100% of its energy lending to be to zero carbon energy projects, phasing out lending to unabated fossil-related projects.

> ADB needs to make energy efficiency an infrastructure priority and should consider setting a specific energy efficiency lending target, which excludes energy efficiency improvements of fossil fuel infrastructure.

> ADB should ramp up its technical assistance to financial regulators in Asia to promote green national financing strategies for mitigation and adaptation.

Leadership area: ADB was the first MDB to set a target date to peak portfolio GHG emissions which is "2030 at the latest". The Bank recognises that earlier peaking would be the "optimal course of action". Other development banks, including the World Bank Group, should follow ADB's lead on this.

[ADB] (2019) **Sarulla Geothermal Power Generation Project**

[36] **Natural Gas World (2019) ASDB finances Indonesia's largest CCGT. As set out in the Fossil fuel exclusions chapter, E3G believes that the available evidence and science shows that investments in new gas infrastructure are not aligned with the goals of the Paris Agreement.**

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ASIAN INFRASTRUCTURE INVESTMENT BANK

Founded: Created in 2016, began operations in January 2016. Note that as AIIB is still a very new institution it has not yet established its full suite of policies, safeguards and best practice which may negatively impact the assessment of its Paris Agreement alignment below. This assessment should be updated with new policy announcement during years to come.

Mission: To be lean, clean and green. To improve social and economic outcomes in Asia. To invest in sustainable infrastructure and other productive sectors in Asia and beyond, to better connect people, services and markets that over time will impact the lives of billions and build a better future.

Total assets: USD 22.372 billion

Headquarters: Beijing, China

Top shareholders: China (30.9%), India (8.7%), Russia (6.8%) and Germany (4.7%)

Key moments and decisions coming up:
- AIIB annual meeting, 2–3 July 2020, China
- AIIB corporate strategy to be drafted during 2020, which may incorporate elements of a climate change strategy
- Review of Environment and Social Framework
- Drafting of Water and Digital Infrastructure Strategies

Summary of Paris alignment assessment: The Asian Infrastructure Investment Bank is a post-Paris bank, as it was created after the Paris Agreement and therefore has an opportunity to fully integrate the commitment to the Paris goals in all its policies and structures. It does however have room for improvement across all criteria included in this study. It has been classified as having made 'some progress' on most indicators which is fitting given the fact it is a new institution and still in the process of putting policies in place. Areas to prioritise include the creation of a climate strategy, project-level reporting of GHG emissions (it is understood that some projects that will do this are in pipeline) and the implementation of a climate risk framework.

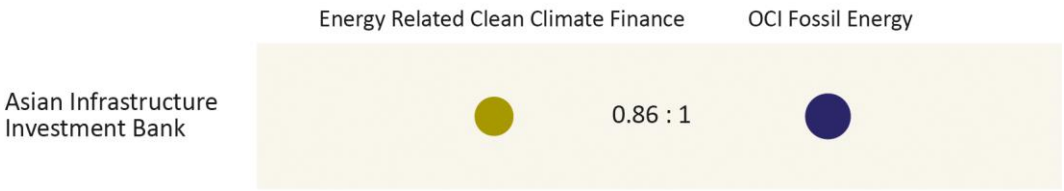
Figure 7: A summary of the assessment of AIIB's Paris Agreement alignment

E3G criteria	AIIB Assessment
Standalone climate strategy and integration of climate in overarching strategy	Not aligned – AIIB doesn't have a standalone climate strategy.
Integration of climate mitigation and resilience in key sectoral strategies	Some progress – The AIIB energy strategy doesn't exclude coal, whilst the transport strategy is unclear as to whether green technologies are going to be promoted in less developed countries. Water strategy being developed.
Transparency of climate finance data	Some progress - Reasonable disclosure of climate finance data is made but there is a lack of transparency on FI sub-projects.
Energy efficiency strategy, standards and investment	Some progress - Increased investment in energy efficiency priority; relatively weak standards in power generation and for financial intermediaries
Fossil fuel exclusion policies	Some progress – No coal exclusion policy, although AIIB has said no coal is in pipeline. Oil and gas extraction projects "unlikely".
Greenhouse gas accounting and reduction	Some progress – Portfolio-level monitoring of GHG emissions for energy sector only. No project-level reporting yet (although some projects in pipeline) and no targets.
Climate risk, resilience, and adaptation	Some progress – No comprehensive climate risk management process at project level.
Green/brown energy finance and scaling up climate investment	Some progress - Scaled up climate financing but low green-brown ratio of 0.86:1[37].
Technical assistance for implementing Paris goals	N/A – AIIB does not provide technical assistance, but recognition of role in energy sector.
Promotion of green finance	Some progress – AIIB has emerging promotion of green finance among market participants and institutions.

[37] See relevant chapter on green-brown ratios for a detailed definition of this ratio.

Bank green-brown energy ratio:

Figure 8: AIIB's energy-related clean finance versus fossil finance (2016–17 average)



***Source**: E3G analysis of climate-related finance data from OECD-DAC and fossil finance data from OCI*

Paris-aligned project case study: Manila Flood Management project in the Philippines[38]

Misaligned project case study: Bhola gas plant in Bangladesh[39]

Recommendations:

> AIIB should put in place an overarching climate change strategy, as well as incorporating this into their corporate strategy.

> AIIB should look to implement further climate risk management systems across its portfolio and establish a project-level climate risk process.

> AIIB should consider setting up technical assistance programmes, including climate-related technical assistance to address upstream barriers in client countries.

Leadership area: The AIIB leadership has gone to great lengths to make clear that it has no coal in its pipeline and has no intention to finance any coal projects. This shows leadership within Asian financial institutions, and other development banks should follow suit. The President of the AIIB, Jin Liqun, has stated that "there are no coal projects in our pipeline, and we will not consider any proposals if we are concerned about their environmental and reputational impact"[40]. AIIB Vice-Presidents Joachim von Amsberg and Thierry de Longuemar

[38] AIIB (2017) **Philippines: Metro Manila Flood Management Project**

[39] AIIB (2016) **Bangladesh Bhola IPP.** As set out in the Fossil Fuel Exclusions chapter, investment in new fossil gas infrastructure cannot be considered to be aligned with the goals of the Paris Agreement.

[40] AIIB (2017) **Opening address Jin Liqun AIIB Board of Governors meeting 2017**

have both also stated that the Bank will not fund coal[41]. AIIB has also shown leadership on climate bonds and on raising awareness of environmental, social and governance issues in the Asia region.

[41] The Times (2017) **We will not invest in coal says China's would-be World Bank** and Foreign Policy (2017) **Even China-backed development bank won't touch coal projects**

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CHINA DEVELOPMENT BANK

国家开发银行
China Development Bank

Founded: 1994

Mission: Enhancing national competitiveness and improving people's livelihood

Total assets: USD 2.3 trillion

Headquarters: Beijing, China

Top shareholders: Ministry of Finance of the People's Republic of China; Central Huijin Investment Ltd; Buttonwood Investment Holding Co (100% owned by the China State Administration of Foreign Exchange); National Council for Social Security Fund

Key moments and decisions coming up:
- CDB Annual Working Conference, January 2020[42]
- CDB International Advisory Council, approximately July 2020[43]
- Belt and Road Forum for International Cooperation (next one expected for 2021[44])
- Planning for China's 14th five-year plan (2021–2025)

Summary of Paris-alignment assessment: China Development Bank has a significant amount of work to do to implement its commitment of aligning to the Paris Agreement on climate change. Based on the available evidence it would appear that this work has only just begun. The Bank could prioritise putting in place and publishing a climate change strategy, disclosing more information with regards to its projects and internal policies and introducing fossil fuel exclusion policies in line with a 1.5°C / 2°C Paris goals scenario.

[42] CDB (2019) **CDB to Leverage Counter-cyclical Adjustments and Enhance Support for the Real Economy**. This page states that "On January 22, CDB convened its 2019 Annual Working Conference in Beijing to review its work in 2018, analyze the current situation, and organize its work in 2019 under the guidance of Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era." As this is an annual conference, it is expected that the next one will take place in January 2020. Note that it is understood that this conference is not as open as other DFI annual meetings.

[43] Evidence suggests that this body meets in July of every year. CDB (2019) **International Advisory Board**.

[44] The Second Belt and Road Forum for International Cooperation was held in Beijing in April 2019, see **website here**. It is expected the next Forum will therefore be held in 2021, as this event takes place every two years.

Figure 9: A summary of the assessment of CDB's Paris Agreement alignment

Indicator	Summary
Overarching climate strategy	N/A – "Green growth" is one of five core values but there is no evidence of a standalone climate strategy. CDB has however signed up to some other initiatives related to green finance.
Integration of climate mitigation and resilience in key sectoral strategies	N/A – There is no evidence of sector strategies. CDB implements the policies of the Chinese government.
Transparency of climate finance data	Not Paris-aligned – No project level information is available, and no disclosures are made of FI sub-projects.
Energy efficiency strategy, standards and investment	N/A – only subsidiary CDBC has draft standards in power and buildings that have never been finalised
Fossil fuel exclusion policies	Not Paris-aligned – There are no fossil fuel exclusions.
Greenhouse gas accounting and reduction	N/A – There is no evidence of GHG accounting (except for projects financed by green bonds).
Climate risk, resilience, and adaptation	N/A – No evidence of climate risk, resilience or adaptation policies
Green/brown energy finance and scaling up climate investment	Not Paris-aligned – Fossil fuel investment outweighs climate-related energy investment. CDB has the largest level of fossil fuel financing of all institutions in this report.
Technical assistance for implementing Paris goals	N/A – Almost no information could be located on CDB technical assistance.
Promotion of green finance	Some progress – CDB has a robust green bond framework and an elaborate vision for a green finance system but there is a lack of public information.

Paris-aligned project case study: A USD 1.6 billion loan for SkySolar, a Chinese solar PV company, to develop their project development capacity[45]
Misaligned project case study: Port Qasim and Hub coal plants in Bangladesh and the Medupi[46]

Recommendations:

> A fossil fuel exclusion policy needs to be implemented to ensure that CDB investments do not go to projects that are not compatible with the Paris

[45] Renewable Energy World (2012) **China Development Bank Gives Sky Solar USD 1.6 billion Loan for Downstream Development**

[46] See Fossil Fuel chapter.

Agreement's goals and scenarios consistent with 1.5°C and 2°C global temperature goals.

> CDB should extend the GHG accounting currently applied to green bonds projects to all projects and report portfolio-level absolute GHG emissions in annual reports.

> CDB should scale up climate-related and energy-related clean investments in order to ensure that green finance at least outweighs brown finance, with the aim of reducing 'brown' energy finance to zero.

> CDB should include climate risk in its regular CDB country risk analysis reports.

Leadership area: CDB did USD 137.2 billion of climate finance in 2017 alone[47], more than five times as much as all the other banks assessed in this report put together. It is not clear what definition of climate finance is being used in these figures, however E3G understands that this uses a relatively conservative definition of climate finance in some areas, which is encouraging[48]. This shows the immense role that CDB is having in shifting financial flows towards sustainable infrastructure in Asia and beyond. Furthermore, another leadership area is CDB's financing of renewable energy industries. China Development Bank's investments in the Chinese solar PV industry in the early 2000s[49] were crucial to the major reductions in PV costs worldwide in the period 2008–2018. This in turn has played a major role in accelerating the global energy transition.

[47] Self-reported mitigation and adaptation financing in 2017 by institution. E3G analysis of climate-related development finance from OECD-DAC data for MDBs and IDFC data for DFIs. See Chapter 4 on Green-brown finance ratios for more detail.

[48] Information shared with E3G by other DFIs.

[49] Yu Zhou, William Lazonick, Yifei Sun (2016) **China As an Innovation Nation**, Chapter: 12, The Rise of the Chinese Solar Photovoltaic Industry: Firms, Governments, and Global Competition, pp.306-332.

JAPAN INTERNATIONAL COOPERATION AGENCY

Founded: The "new" JICA, which integrated (1) the technical cooperation of JICA, (2) the Japanese Overseas Development Assistance (ODA) loans of former JBIC, and (3) some grants provided by Japan's Ministry of Foreign Affairs, was launched in 2008. JICA was originally founded in 1974 and was reformed in 2003 and then again in 2008.

Mission: Human security and quality growth

Total assets: USD 112 billion

Headquarters: Tokyo, Japan

Top shareholders: 100% Japanese government-owned incorporated administrative agency

Key moments and decisions coming up:

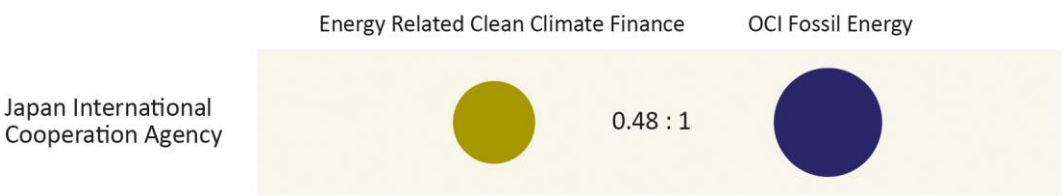
- Integration of the Japan long-term emissions strategy in Japanese government policy and therefore JICA operations.
- Japan is revising its national energy strategy with deliberations set to begin next year. This process is to be completed by 2021.

Summary of Paris alignment assessment: The Japan International Cooperation Agency presents a very mixed picture in terms of Paris Agreement alignment – the most mixed of all the institutions studied. JICA is a leader in terms of climate risk and its overall climate strategy, which should in principle be a good foundation for further Paris alignment across the institution. However, this does not filter down to its sectoral strategies, energy efficiency policies and technical cooperation. And there are aspects of JICA's operations which run directly counter to Paris goals.

Figure 10: A summary of the assessment of JICA's Paris Agreement alignment

E3G criteria	JICA Assessment
Overarching climate strategy	Paris aligned – The strategy integrates both mitigation and resilience.
Integration of climate mitigation and resilience in key sectoral strategies	Not Paris aligned – The strategies are in contradiction to or make no mention of climate. Energy strategy highlights need for coal.
Transparency of climate finance data	Some progress – There is reasonable disclosure of climate finance data but lack of transparency on FI sub-projects.
Energy efficiency strategy, standards and investment	Some progress – Focus on formulating energy conservation master plans for countries within its Technical Assistance, but gives way to national standards.
Fossil fuel exclusion policies	Not Paris aligned – No fossil fuel exclusions other than OECD guidelines on efficient coal. Explicit support for coal.
Greenhouse gas accounting and reduction	Some progress – Project-level reporting in energy, transport, forests and other sectors but no target.
Climate risk, resilience, and adaptation	Paris-aligned – JICA evaluates projects on vulnerability and climate-proofing, assesses clients' structural climate risk, relatively high spending on adaptation.
Green/brown energy finance and scaling up climate investment	Not Paris aligned – Large investment in coal over the 2016–17 period.
Technical assistance for implementing Paris goals	Some progress – JICA does both climate-related technical cooperation and technical assistance for power-sector development plans which lock in fossil fuel technologies.
Promotion of green finance	Some progress – JICA has issued SDG-aligned bonds and is engaged in initiatives around TCFD adoption as well as developing emerging bond markets.

Figure 11: JICA's energy-related clean finance versus fossil finance (2016–17 average)



***Source**: E3G analysis of climate-related finance data from OECD-DAC and fossil finance data from OCI*

Paris-aligned project case study: A 2006 study on energy conservation and energy efficiency and the Energy Service Company (ESCO) model[50].

Misaligned project case study: The 1GW Indramayu Coal Fired Power Plant Project in West Java, Indonesia[51].

Recommendations:

> JICA should implement robust energy efficiency standards in project financing and not give way to national energy efficiency standards when these are lower than JICA's standards.

> JICA should put in place an exclusion policy for coal, and then extend that to oil and gas projects in a second phase.

> Increase support for green financing in client countries through JICA's Technical Cooperation and cease encouraging carbon lock-in with its power generation sector technical assistance.

Leadership area: JICA's climate risk management. JICA promotes physical climate risk assessments and countermeasures at the feasibility study stage of project appraisal. Projects are assessed for climate vulnerability and required adaptation measures are identified. JICA also works on climate risk and adaptation at systemic level. One of its four climate change cooperation priorities is enhancing climate risk assessment and countermeasures. Other development banks should follow suit in this regard.

[50] JICA (2006) **Project study on energy conservation by utilising ESCO**

[51] JICA **Indramayu Coal Fired Power Plant Project**

KOREA DEVELOPMENT BANK

Founded: 1954

Mission: To contribute to the development of Korea's financial industry and economy[52].

Total assets: KRW 263,076 billion / USD 220 billion[53]

Headquarters: Seoul, South Korea

Top shareholders: Government of the Republic of Korea (100%). The Ministry of Economy and Finance owns the lion's share (91.71%). The Ministry of Land, Infrastructure and Transport (7.60%) and Ministry of Oceans and Fisheries (0.69%) have minor stakes. Note that KDB reports to the Financial Services Commission, rather than the Ministry of Economy and Finance.

Key moments and decisions coming up:
- Ministry of Trade, Industry and Energy to set the 9th Electricity supply plan in December 2019.
- Ministry of Environment's obligation to update Korea's NDC and agree a long-term emissions reduction strategy in 2020.

Summary of Paris-alignment assessment: The Korea Development Bank has a significant amount of work to do to implement its commitment of aligning to the Paris Agreement on climate change. It would appear that this work has only just begun. It should prioritise the creation of an overarching climate strategy (and dedicated climate change team within the institution), full GHG accounting and targets and implementing fossil fuel exclusion policies.

[52] KDB (2017) **Annual Report 2017**, page 12.

[53] KDB (2018) **Annual Report 2018**, page 3, converted with rates as at 16/09/2019.

Figure 12: A summary of the assessment of KDB's Paris Agreement alignment

Indicator	Summary
Overarching climate strategy	Not Paris-aligned – KDB does not have a standalone climate strategy, but recognises climate change as a "challenge" in its overarching strategy.
Integration of climate mitigation and resilience in key sectoral strategies	N/A – There is no information or evidence of sector-specific strategies. There are plans to finance projects related to hydrogen/electric charging stations, electric vehicles and public transport.
Transparency of climate finance data	Not Paris-aligned – No project level information is available and there is no disclosure of financial intermediary sub-projects.
Energy efficiency strategy, standards and investment	Not Paris-aligned – KDB has no separate energy efficiency guidelines, but adheres to OECD efficiency guidelines on coal-fired power generation.
Fossil fuel exclusion policies	Not Paris-aligned – KBD has no coal, oil or gas exclusions and there are examples of KDB loans for coal, oil extraction and gas projects. However there appears to be no financing of new coal power stations in Korea due to government policy.
Greenhouse gas accounting and reduction	Not Paris-aligned – There is no GHG accounting at project or portfolio level (with the exception of renewables projects financed by green bonds). This is despite being a signatory of the Equator Principles and accredited to the Green Climate Fund.
Climate risk, resilience, and adaptation	Not Paris aligned – No processes to screen or manage climate risks at project level, no disclosure of adaptation finance
Green/brown energy finance and scaling up climate investment	Not aligned – Low level of climate financing reported and high fossil fuel investments
Technical assistance for implementing Paris goals	N/A – Almost no information could be located on KDB technical assistance.
Promotion of green finance	Some progress – It is unclear how the support on green finance is carried out, and there is only limited information on green bonds.

Paris-aligned project case study: Phase 3 of the Mohammed bin Rashid Al Maktoum[54] 800MW Solar PV power plant in United Arab Emirates which will receive a USD 100 million loan funded by KDB Green Bond proceeds[55].

[54] EDF Renewables (2017) **800MW third phase of Mohammed bin Rashid Al Maktoum Solar Park reaches financial close**

[55] Sustainalytics (2017) **KDB green bond: framework overview and second opinion**, page 9.

Misaligned project case study: Two new coal power plants that are to be added to the Suralaya power complex near Jakarta, Indonesia. The plants will have a combined capacity of 2,000MW and cost USD 1.67 billion[56].

Recommendations:

> KDB should put in place a standalone climate strategy, in addition to its implementation of Korea government policy in this area.

> KDB should put in place a fossil fuel exclusion for coal, and then extend that to oil and gas projects. It is noted however that as the Korean government has no current plans for coal-fired power stations, KDB in turn has no plans to finance any coal power stations in Korea.

> KDB should start providing project-level and portfolio data, including GHG emissions, to increase its transparency. Publishing GHG data would bring it into line with the Equator Principles to which it has committed.

> KDB (or the Korean government, as appropriate) should consider creating a new "Korean green bank" institution that would have as its explicit mandate the financing of green sustainable infrastructure within and outside of Korea.

Leadership area: The KDB is the only bank assessed in this report to have signed up to the Equator Principles, which are based on the IFC's environmental, social and human rights performance standards, and represents a minimum starting point for financial institutions. It was also accredited to the Green Climate Fund in 2016, which is a significant achievement, and it is understood that it may shortly submit some projects to the GCF.

[56] Asia Times (2018) **Korean Banks urged to halt funds for Indonesian coal fired plants**

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WORLD BANK GROUP

Founded: 1944

Mission: To end extreme poverty and to promote shared prosperity

Total assets: USD 490 billion

Headquarters: Washington, DC, USA

Top shareholders: USA, Japan, Germany, France, UK and China

Key moments and decisions coming up:
– IDA replenishment meeting, December 2019[57]
– World Bank Spring Meetings, 17–19 April 2019, Washington, DC
– Replenishment of the Green Climate Fund (GCF)
– World Bank Annual Meetings, 16–18 October 2020, Washington DC

Summary of Paris alignment assessment: The World Bank Group is making slow but steady progress towards aligning the various aspects of its operations to the Paris Agreement on climate change. As a norm setter for other MDBs, it needs to go further and faster as many development banks copy its standards. Areas it should prioritise include energy efficiency standards within IDA/IBRD which are a glaring omission and setting a GHG reduction target. The World Bank Group also has the potential to lead the way in terms of transparency in financial intermediary sub-projects.

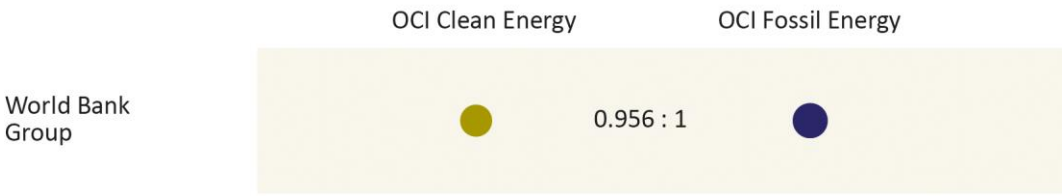
[57] Website for **IDA19 replenishment**.

Figure 13: A summary of the assessment of WBG's Paris Agreement alignment

Indicator	Summary	
Overarching climate strategy	Paris-aligned – The strategy includes both mitigation and adaptation, and also acknowledges that climate is a threat to poverty reduction. Focus now needed on implementation in all parts of the Bank's activities, including technical assistance.	
Integration of climate mitigation and resilience in key sectoral strategies	Paris-aligned – Adaptation and mitigation are included in a balanced way across sectoral strategies.	
Transparency of climate finance data	Some progress – There is reasonable disclosure of climate finance data but lack of transparency on FI sub-projects.	
Energy efficiency strategy, standards and investment	**IDA/IBRD** N/A – only transport sector has energy efficiency principles	**IFC** Paris-aligned – Energy efficiency standards across all sectors promote best available technology and identify investment needs.
Fossil fuel exclusion policies	Some progress – There is near complete exclusion of coal and upstream oil and gas.	
Greenhouse gas accounting and reduction	Some progress – Portfolio-level GHG tracking is in the process of being implemented but no target for peaking or reducing GHGs has been set.	
Climate risk, resilience, and adaptation	**IDA/IBRD** Paris-aligned – Good project-level climate risk management system being piloted with wide coverage, and dedicated efforts for enhancing client resilience. Full implementation will follow.	**IFC** Some progress – Developing project-level climate risk management processes; intention to grow adaptation finance.
Green/brown energy finance and scaling up climate investment	Some progress – Progress has been made in certain sectors but only limited progress in others. Climate finance versus fossil finance is positive but more progress is required to phase out fossil finance.	
Technical assistance for implementing Paris goals	Some progress – WBG manages NDC Support Facility Trust Fund, which also supports the NDC Partnership. However it also uses technical assistance to support fossil fuel sectors.	
Promotion of green finance	Paris-aligned – WBG is promoting green finance in banks, local and national institutions, insurers and regulators with a number of potentially transformational initiatives.	

Bank green-brown energy ratio:

Figure 14: WBG's energy-related clean finance versus fossil finance (2016–17 average)



***Source**: E3G analysis of data from OCI*

Paris-aligned project case study: The World Bank's Energy Sector Management Assistance Program (ESMAP), in partnership with the International Finance Corporation, has created a specific USD 5 million programme to help low- and middle-income countries explore offshore wind potential and create a pipeline of projects for the World Bank Group to finance[58].

Misaligned project case study: Two USD 400 million loans for Turkey and Azerbaijan for the Trans Anatolian Natural Gas Pipeline (TANAP), which will transport natural gas from the Shah Deniz 2 gas field amongst others in Azerbaijan to Turkey and South Eastern Europe[59].

Recommendations:

> WBG should disclose more detailed information on sub-projects financed by financial intermediaries (particularly at IFC) and introduce due diligence to ensure that intermediaries are not investing in areas the World Bank has excluded e.g. coal and upstream oil and gas. WBG should also work with intermediaries on decarbonisation plans.

> WBG should extend fossil fuel exclusion policies to cover all coal, oil and gas at all stages of the value chain.

> World Bank Group should look to the experience of the other MDBs and how they incorporate the Avoid-Shift-Improve framework into their transport lending. IBRD and IDA are well placed to adopt the standards used by the IFC in other sectors.

[58] Offshore Wind Biz (2019) **GWEC and World Bank Group Target Emerging Offshore Wind Markets**

[59] World Bank (2016) **World Bank Group Supports Diversification of Azerbaijan's Gas Export Markets and Security of Energy Supply for Turkey and Europe**

Leadership area: The World Bank's technical assistance to implement NDCs. The NDC Support Facility Trust supports the NDC Partnership, an international initiative to support action on the NDCs which is backed by various MDBs, including ADB, and many country participants. This is an example of real global leadership from the World Bank on this issue. Furthermore, the Climate Action Enhancement Package, a new offering of the NDC Partnership, has a goal of enhancing NDC ambition as well as implementation.

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CHAPTER 1
GREENHOUSE GAS ACCOUNTING AND REDUCTION

Figure 15: An assessment of the banks' greenhouse gas accounting and reduction measures

Bank	Greenhouse gas accounting and reduction
AIIB	Some progress – Portfolio-level monitoring of GHG emissions for energy sector only. No project-level reporting yet (although some projects in pipeline) and no targets.
ADB	Paris aligned – ADB undertakes GHG accounting for the whole portfolio and has a target for GHG emissions to peak by 2030 at the latest.
CDB	N/A – no evidence of GHG accounting (except for green bonds projects)
JICA	Some progress – Project-level reporting in energy, transport, forests and other sectors but no target
KDB	Not Paris-aligned – There is no GHG accounting at project or portfolio level (with the exception of renewables projects financed by green bonds). This is despite being a signatory of the Equator Principles and accredited to the Green Climate Fund.
WBG	Some progress – Portfolio-level GHG tracking is in the process of being implemented but no target for peaking or reducing GHGs has been set.

***Source**: E3G Assessment*

Figure 16: Metrics for greenhouse gas accounting and reduction

	Not aligned	Some progress	Paris-aligned	Transformational
Greenhouse gas accounting at project and portfolio level	No GHG accounting at project or portfolio level	Tracking emissions only in certain sectors; or tracking but no target to reduce emissions	Ambitious target to reduce and peak portfolio emissions	Science-based target to reduce portfolio emissions (or better), covering both direct and indirect lending and Scopes 1, 2 and 3

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Summary

The development banks studied in this report vary in the extent to which they track greenhouse gas (GHG) emissions at project and portfolio level, across sectors (energy, transport, industry, forests etc.) and whether they have set targets for reductions or peaking in emissions. It is important to distinguish between absolute and relative greenhouse gas emissions based on a 'no project' baseline. Absolute greenhouse gas emissions give a much better estimation of absolute climate change impact. The Asian Development Bank is the most advanced in terms of its GHG accounting and Paris alignment, having set a target for emissions to peak by 2030 latest.

Recommendations

> CDB, JICA and KDB should implement and report on the harmonised approach to greenhouse gas accounting agreed by a group of bilateral and multilateral development banks in 2015[60].

> ADB, AIIB, CDB, JICA, KDB and WBG should work to extend the harmonised IFI approach to greenhouse accounting to both direct and indirect lending to cover projects funded through financial intermediaries.

> AIIB, CDB, JICA, KDB and the WBG should implement target dates for peaking emissions. This should be a science-based target that is compliant with the Paris Agreement.

> ADB should bring its target for peaking emissions forward (it is currently 2030 at the latest), as it has already indicated would be 'optimal'.

> KDB should fully implement the Equator Principles, which it has signed up to, and report on greenhouse gas emissions above the required threshold.

> The World Bank (IBRD/IDA) should consider signing up to the Equator Principles, which are based on IFC Performance Standards. IBRD/IDA already applies IFC Performance Standards to IBRD/IDA projects operated by the private sector. These standards should also be extended to sovereign lending and publicly operated projects.

> CDB should apply its methodology for assessing project GHG emissions reductions in green bond projects to all the projects in its portfolio and publish this information on its website.

[60] World Bank Group et al (2015) **International Financial Institution Framework for a Harmonised Approach to Greenhouse Gas Accounting**

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Background

Greenhouse gas (GHG) accounting and the use of targets to reduce greenhouse gas emissions are one of the many tools that can be used to measure alignment to the Paris Agreement.

Many private sector financial institutions and companies already report on their direct and indirect GHG emissions and have set targets to reduce them in line with sectoral decarbonisation pathways[61]. Greenhouse gas accounting methodologies are well established for reporting at corporate or group level[62]. The industry-led Task Force on Climate-related Financial Disclosures (TCFD), established by the Financial Stability Board to create a framework for companies to provide information on climate risk to investors and other stakeholders, has recommended that banks and insurers disclose all their direct and indirect greenhouse gas emissions[63]. The ideas is that this will promote financial market stability by increasing the transparency of systemic climate-related financial risks. Of course there are many challenges to measuring a company's GHG emissions, including where to draw the emissions boundary. It should be noted that TCFD only recommends the inclusion of Scope 3 emissions "when appropriate", which can reduce the usefulness of the metric[64].

There is less consensus on reporting methodologies for projects, portfolios and individual financial investments. Portfolio analysis is particularly complex as investments may include a mixture of project finance, debt and equity. The UN Environment Program's Roadmap for a Sustainable Financial System has noted that "consensus is building around methodologies for the disclosure of certain types of information … such as the carbon footprint of investment portfolios"[65].

As regards international financial institutions (IFIs), 13 multilateral and bilateral development banks have agreed on a common approach to calculating their project GHG emissions[66], with a more detailed approach for energy efficiency

[61] See for example the work of **CDP** which has over 7,000 companies representing USD 35 trillion by market capitalisation. Furthermore, 600+ companies have joined the Science Based Targets initiative and set science-based GHG reduction targets.

[62] Notably the Greenhouse Gas Protocol and the ISO 14064 standard.

[63] TCFD (2019) **Second TCFD Status Report**. See also E3G (2017) **Which development bank is leading the way on emissions reporting?**

[64] TCFD Hub (2019) **Metrics and Targets**

[65] UNEP (2017) **Roadmap for a sustainable financial system**

[66] World Bank Group (2015) **International Financial Institution Framework for a Harmonised Approach to Greenhouse Gas Accounting**

projects as these present additional complexity[67]. Project-based greenhouse gas accounting can be more challenging than entity-based accounting that is based on physical measurements. In particular, the calculation of net GHG emission reductions may be conducted against a hypothetical baseline (the 'without project' scenario); this involves the use of assumptions and adds to uncertainty. Future emissions are estimated and are likely to differ from actual emissions. Project lifetimes are also best estimates rather than known quantities. All of this points to the need for accounting of absolute emissions as well as relative emissions.

The use of financial intermediaries by IFIs presents another challenge to full transparency. Financial intermediaries are not currently subject to GHG emissions assessments, as the 13 IFIs have committed only to "accounting for the GHG emissions of direct investment projects" in their harmonised approach[68].

Emission reduction targets at organisational level can be framed in terms of absolute reductions, peaking, emissions intensity, net zero or negative emissions targets. Absolute targets are numerical and are set in relation to a baseline (usually a specific year). Relative targets may be expressed as a percentage or a ratio based on activity, e.g. a reduction in emissions per dollar lent, or per project. While intensity metrics can be useful, it is good practice also to report absolute emissions figures. A third type of target involves setting a time-limited goal for peaking emissions – again this can be useful but should be science-based and Paris aligned and requires an underlying absolute emissions reduction target to be meaningful.

At project level, the IFI common guidance[69] makes it clear that banks should publish the total (gross) projected emissions of any project, as well as the net calculated reduction in emissions compared to the baseline scenario.

[67] Group of IFIs (2015) **IFI Approach to GHG Accounting for Energy Efficiency Projects**

[68] World Bank Group (2015) **International Financial Institution Framework for a Harmonised Approach to Greenhouse Gas Accounting**

[69] World Bank (2015) **International Financial Institution Framework for a Harmonised Approach to Greenhouse Gas Accounting**

Asian Development Bank

Figure 17: ADB greenhouse gas accounting and reduction

Bank	Year started	Inclusion threshold (CO2e/ year)	Sectors covered	Target?
Asian Development Bank	GHG reductions only estimated from 2008 onwards. Safeguard policy adopted 2009	100,000 tonnes CO_2e threshold	All ADB operations/ portfolio	Yes – GHG emissions to peak by 2030 latest, with earlier peaking "optimal"

***Sources**: ADB (**2017**).*

ADB has different GHG reporting regimes for different sectors. In the energy sector, ADB currently tracks GHG reductions at project level[70], with specific guidelines for clean energy projects[71]. For transport investments, the transport-specific greenhouse gas guidelines agreed in 2016 state that all projects will be "screened in terms of their gross GHG emissions and that more detailed analysis be conducted if a certain threshold is exceeded"[72]. The Safeguard Policy Statement states that the significance threshold across all projects is 100,000 tonnes CO_2e/year" [73].

As regards methodology, ADB's approach involves comparing project emissions to a 'without project' scenario. This is a hypothetical scenario that aims to represent the GHG emissions that would occur in the absence of the ADB project[74]. This does not however represent the absolute emissions of the project across its lifetime. ADB guidance on absolute emissions is currently under review.

The ADB was the first MDB to set a target date to peak portfolio emissions. The ADB set "2030 at the latest" as the date for doing this[75], although it is unclear how much progress has been made as there is a lack of publicly available information. Although ambitious, the ADB itself recognises that earlier peaking

[ADB] (2017) **2016 Development Effectiveness Review**

[71] ADB (2017) **Guidelines for assessing GHG emissions of ADB projects: additional guidance for clean energy projects**

[ADB] (2016) **Guidelines for estimating greenhouse gas emissions of Asian Development Bank projects**

[ADB] (2009) **Safeguard Policy Statement.** Note that this threshold is under evaluation as of late 2018.

[ADB] (2017) **Guidelines for estimating greenhouse gas emissions of Asian Development Bank projects**

[ADB] (2017) **Climate change operational framework 2017-2030**

would be the "optimal course of action"[76]. This statement is welcome, as research has shown that global emissions need to peak as soon as possible if the world is to have a chance of staying below the Paris temperature goals[77].

Asian Infrastructure Investment Bank

Figure 18: AIIB greenhouse gas accounting and accounting

Bank	Year started	Inclusion threshold (CO_2e/ year)	Sectors covered	Target?
Asian Infrastructure Investment Bank	2017 (energy sector only) so from the start of bank operations	N/A	Energy sector only at project and portfolio level	No targets

***Sources**: AIIB (**2016**)*

The AIIB has a portfolio-level monitoring indicator of gross greenhouse gas emissions in tonnes of CO_2e per year for its energy sector lending[78]. It started this in 2017, shortly after it was founded, showing commitment in this area. The AIIB has confirmed to E3G that it follows the harmonised IFI approach to GHG accounting[79].

The AIIB has also committed to project-level assessments to determine "the impacts of the project on climate change, *including emissions*"[80]. This implies that this would include not just absolute GHG emissions reduced but also emitted. The AIIB has confirmed that all projects with GHG emissions *reductions* disclose the GHG benefits, which is welcome, and some projects include relative emissions reductions[81]. However analysis of project documents on the AIIB website[82] shows that they do not appear to include quantifications of *absolute* emissions, so it is not clear if this commitment has been fully implemented yet. The AIIB has informed E3G that there are projects that implement this in their pipeline.

[ADB] (2017) **Climate Change operational framework, paragraph 119**.

[77] UN Environment (2017) **The Emissions Gap Report 2017**, page. 16.

[78] AIIB (2017) **Energy sector strategy**

[79] World Bank Group et al (2015) **International Financial Institution Framework for a Harmonised Approach to Greenhouse Gas Accounting**

[80]AIIB (2016) **Environmental and Social Framework**

[81] AIIB (2018) **Bangladesh Natural gas infrastructure improvement project**

[82] AIIB lists approved projects **on its website**. Example is the **Trans Anatolian Natural Gas Pipeline (TANAP) project document**, which does not appear to contain a GHG emission estimate.

The AIIB has not announced any GHG emissions targets for either specific sectors or for its full portfolio.

The updated version of its energy strategy states that "all energy projects financed by the Bank will include [GHG] indicators in their results framework where applicable. Project level indicators will be aggregated across the Bank's energy investment portfolio to monitor progress towards implementing the Energy Sector Strategy."[83]

The AIIB transport strategy[84] states that "measuring greenhouse gas emissions of transport infrastructure is desirable but technically complex, and still faces methodological and practical challenges. AIIB will build such capacity over time and be informed by the lessons learned from other MDBs and ongoing development of methodologies." This analysis will be updated further as AIIB updates its policy in this area.

[83] AIIB (2018) **Energy sector strategy** (updated)

[84] AIIB (2018) **Transport Sector Strategy**

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China Development Bank

Figure 19: CDB greenhouse gas accounting and reduction

Bank	Year started	Inclusion threshold (CO_2e/ year)	Sectors covered	Target?
China Development Bank	N/A	N/A	Green bond projects only, emissions reduced only.	N/A

There is no information as to whether CDB tracks the emissions generated or avoided from projects that it finances or its whole portfolio.

CDB is, however, tracking the CO_2 emissions *avoided* (but not absolute emissions) by green bond projects in the energy and transport sectors, according to its Green Bond Framework[85] and other information on its website about projects financed by green bonds[86]. Every green bond annual report states the number of tonnes of annual GHG emissions *reductions*[87].

This shows that the China Development Bank at least has a methodology for estimating GHG emissions *reduced*, which could potentially be extended to its full portfolio in the future.

[85] CDB (2017) **China Development Bank Green Bond Framework.** Also available on the **Climate Bonds Initiative website**.

[86] CDB (2018) **CDB first issues green asset securitisation products** (link in Chinese and analysis done based on Google translate).

[87] CDB (2017) **Annual report on CDB 2017 green bond**. Page 2.

Japan International Cooperation Agency

Figure 20: JICA greenhouse gas accounting and reduction

Bank	Year started	Inclusion threshold (CO_2e/ year)	Sectors covered	Target?
Japan International Cooperation Agency	2011	N/A	Forests, transport, industry, energy, sewerage and urban sanitation	N/A

***Sources**: JICA (**2014**)*

JICA estimates the greenhouse gas emissions reductions from all of its projects.

According to JICA's climate change strategy, agreed in September 2016, greenhouse gas emissions reductions must be estimated as part of project feasibility studies[88]. To do this JICA uses its Climate Change Finance Impact Tool for Mitigation and Adaptation (Climate-FIT), which is said to improve project development for both mitigation and adaptation and mainstream climate change measures in all projects[89]. The tool's methodology has been adapted to cover sectors including forests, transport, industry, energy, sewerage and urban sanitation[90] and has been in use since at least 2011[91]. None of the methodology sheets published on the JICA website[92] mention a minimum project emissions reduction threshold for greenhouse gas accounting or a target for GHG emissions reductions.

[88] JICA (2018) **Cooperation on climate change: towards a sustainable and zero-carbon society**, page 5.

[89] **Ibid.**

[90] JICA (2014) **Climate finance impact tool for mitigation**

[91] JICA (2011) **Climate FIT summary** and JICA (2014) **Climate finance impact tool for mitigation**

[92] Ibid.

Korea Development Bank

Figure 21: KDB greenhouse gas accounting and reduction

Bank	Year started	Inclusion threshold (CO_2e/ year)	Sectors covered	Target?
Korea Development Bank	No GHG measurement (except green bonds)	No inclusion threshold as no GHG measurement	Renewables (green bonds only)	No target as no GHG measurement

***Source**: Documents shared with E3G by Korea authorities.*

KDB does not estimate the greenhouse gas emissions generated or avoided from its portfolio as a whole[93]. KDB does, however, track CO_2 emissions avoided by green bond projects in the renewable energy sector[94] [95]. Reports commissioned by the KDB about its green bonds estimate the GHG emissions reductions of each bond[96]. The KDB annual report also reports on the CO_2 emissions avoided by KDB's renewable energy investments[97].

There appears to be no publicly available information indicating a minimum project emissions inclusion threshold for GHG accounting. As GHG emissions are not calculated for KDB projects, other than green bonds, there cannot therefore be a target for reducing these emissions.

KDB has signed up to the Equator Principles[98] on minimum environmental and social standards and risk management and is the only financial institution analysed in this report to have done so. The Equator Principles[99] state that "the client will publicly report GHG emission levels (combined Scope 1 and Scope 2 emissions) during the operational phase for projects emitting over 100,000 tonnes of CO_2 equivalent annually". The KDB's statement that it does not measure GHG emissions appears therefore to be in contravention with its commitment to the Equator Principles.

[93] Documents provided by Korean authorities to E3G containing further information on Korea Development Bank.

[94] KDB **Environmental Impact Reporting**.

[95] Climate Bonds Initiative (2018) **Korea climate bond market. It is possible this information is also contained in the KDB green bond framework, but this document does not appear to be publically available in English.**

[96] Sustainalytics (2017) **KDB green bond: framework overview and second opinion**

[97] KDB (2017) **Annual report**, page 37.

[98] Equator Principles (2017) **Korea Development Bank: The First Korean Bank to Adopt the Equator Principles**

[99] Equator Principles (2013) **The Equator Principles III**

World Bank Group

Figure 22: WBG greenhouse gas accounting and reduction

Bank	Year started	Inclusion threshold (CO_2e/ year)	Sectors covered	Target?
World Bank Group	Total GHG emissions in progress/TBC. Project level since 2017.	25,000 tonnes of CO_2e/year (International Finance Corporation). Unspecified significance threshold (World Bank Group)	Sectors such as education and social protection exempted	No WBG target. IFC target of 6.91 million tonnes CO_2e/year reductions

***Sources**: IFC (**2012**) IFC (**2017**)*

In October 2017 President Jim Yong Kim announced that the World Bank Group (WBG) was going to start reporting its total portfolio GHG emissions[100]. Bank staff have clarified that this will include all WBG institutions [101]. This information is set to be published in the October 2019 World Bank Corporate Scorecard[102].

The WBG as a whole has not yet adopted a portfolio-wide emissions reduction target. The International Finance Corporation (IFC) does however have a target of reducing portfolio emissions by 6.91 million metric tonnes of CO_2e/year[103]. It appears that this target is to be based on reductions from climate mitigation projects only[104]. E3G understands that the World Bank Group did consider an emissions target but decided not to adopt such a target due to the variations or 'lumpiness' in CO_2 emissions from year to year as projects are added and removed from the portfolio[105].
The WBG has specific methodologies for tracking GHG emissions in several sectors including energy, transport, agriculture, forestry, water and solid waste[106]. According to the Bank's new Environment and Social Framework[107],

[100] Devex (2017) **World Bank to report aggregate greenhouse gas emissions for first time**

[101] Confirmation that this will cover all WBG institutions came from E3G communications with World Bank Group staff (December 2017).

[102] Communications between E3G and the World Bank.

[103] IFC (2017) **IFC Annual Report 2017**

[104] IFC Development Goals (IDGs) Overview climate change mitigation

[105] Communications between World Bank staff and members of the **Big Shift Coalition**.

[106] Climate Investment Funds (2017) **Greenhouse Gas Analysis and Harmonisation of Methodology**

[107] World Bank Group (2017) **Environmental and Social Framework**. Page 41.

project-level gross GHG emissions should be estimated, subject to a reasonable significance threshold[108].

When calculating GHG emissions, IFC considers the baseline scenario to be what would have happened in the absence of the IFC project[109]. IFC requires clients to report on GHG emissions over a threshold of 25,000 tonnes of CO_2-equivalent annual emissions[110], and calculates the gross GHG emissions from its investments using its Carbon Emissions Estimator Tool[111]. For direct investments, the expected gross emissions for projects over 25,000 tonnes of CO_2e are disclosed in the Environmental and Social Review Summary (ESRS)[112].

While IFC does have a methodology for tracking the GHG reductions from its equity and loan investments[113], this does not appear to track emissions *generated* from investments in high-emitting sectors compared to a no project scenario, only relative emissions savings. Project GHG emissions estimates are used as an input to shadow carbon pricing.

[108] The document states for example that education and social protection projects will be exempted.

[109] IFC (2017) **IFC Greenhouse Gas Reduction Accounting Guidance For Climate Related Projects** The baseline activity is the scenario that would occurred in the absence of the IFC project

[110] IFC (2012) **Performance Standard 3: Resource Efficiency and Pollution Prevention**, page 2.

[111] CIF (2017) **Greenhouse Gas Analysis and Harmonization of Methodology**

[112] IFC (2016) **IFC Environmental and Social Review Procedures Manual**

[113] IFC Development Goals (IDGs) Overview climate change mitigation

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CHAPTER 2
FOSSIL FUEL EXCLUSION POLICIES

Figure 23: An assessment of the banks' fossil fuel exclusion policies

Bank	Fossil fuel exclusion policies
AIIB	Some progress – No coal exclusion policy, although AIIB has said no coal in pipeline. Oil and gas extraction projects "unlikely"
ADB	Some progress – Oil and gas exploration is excluded; there is no official coal exclusion, however, no direct coal investment since 2013 or pipeline.
CDB	Not aligned – No fossil fuel exclusions
JICA	Not aligned – No fossil fuel exclusions other than OECD guidelines on efficient coal
KDB	Not Paris-aligned – KBD has no coal, oil or gas exclusions and there are examples of KDB loans for coal, oil extraction and gas projects. However there appears to be no financing of new coal power stations in Korea due to government policy.
WBG	Some progress – Near complete exclusion of coal and upstream oil and gas

***Sources**: E3G assessment*

Figure 24: Definitions for fossil fuel exclusion policies

Assessment	*Not aligned*	*Some progress*	*Paris-Aligned*	*Transformational*
Policies to restrict finance to fossil fuels	No fossil fuel exclusions or evidence of recent fossil fuel investments	Exclusions on either coal or oil and gas exploration	Ambitious target to peak and reduce portfolio GHG emissions	Science-based target to reduce portfolio emissions (or better), covering both direct and indirect lending and Scopes 1, 2 and 3.

***Sources**: E3G Assessment*

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Summary

In this chapter we examine the extent to which the banks assessed in this report (and their financial intermediaries) are financing fossil fuels. We assess the institutions' policies on fossil fuel investments and the extent to which they have fossil fuel exclusions in place[114]. We look at coal, oil and gas, while recognising that coal is the most carbon-intensive of the fossil fuels and therefore the priority for a fossil fuel phaseout. While gas is lauded for reducing emissions relative to coal, it may endanger the Paris climate goals due to its absolute emissions and cannot be considered low-carbon in the face of climate-neutral technology alternatives. Within the general area of fossil fuel policies, there is a contrast between the multilateral development banks, which have all started to implement some fossil fuel exclusions, and the bilateral development banks, who have not implemented any fossil fuel exclusions other than JICA and KDB's adherence to the OECD's guidelines on investing in more efficient coal power plants. Swift progress is required in this area in order to deliver on Paris Agreement alignment.

Recommendations

> World Bank Group should implement fossil fuel exclusions in downstream oil and gas and work towards a complete fossil fuel exclusion across all segments of the value chain.

> The Asian Development Bank should use the forthcoming 2020 energy policy review to set a target date for 100% of its energy lending to be to zero-emissions projects, phasing out lending to unabated fossil-related projects.

> Asian Infrastructure Investment Bank should revise its position on and exclude gas.

> CDB and KDB should put in place and publish fossil fuel exclusion policies.

> JICA should conduct or commission an independent analysis of whether its policy statements regarding support for an expansion of coal-fired power generation are in line with its commitment to align with the Paris Agreement.

[114] A separate but related issue is that of whether the MDBs consider transition risks or financial risks when considering a fossil fuel project, defined as the policy, legal and technology risks related to the transition to a lower carbon economy. This is outside the scope of this chapter.

Background

The goals of the Paris Agreement clearly require a swift phase out of fossil fuel capacity and infrastructure, delivered by ending new-build capacity and in many cases early retirements of existing infrastructure.

According to a recent study in Nature, committed emissions from existing and proposed energy infrastructure represent more than the entire carbon budget consistent with limiting warming to 1.5°C.[115] The Intergovernmental Panel on Climate Change's Special Report on 1.5°C made clear the use of all fossil fuels (coal, oil, and gas) must decline significantly by 2030 to achieve a scenario of limited or no overshoot of 1.5°C.[116]

Analysis by the International Energy Agency (IEA)[117] suggests that countries that are part of the Organisation for Economic Co-operation and Development (OECD) need to cease the use of coal power generation by around 2030 to enable the global energy sector to reach net zero emissions by around 2050, in line with the Paris Agreement goals and a 2°C scenario[118]. Non-OECD countries need to quickly follow suit. Research has shown that, to be compliant with a 1.5°C pathway, Japan and Korea have to phase out coal power generation by 2030 and China by 2040[119].

Furthermore, E3G's analysis suggests that 11% of coal power plants in the pipeline worldwide are publicly funded, with this proportion rising to 18% if you exclude India and China (see Figure 25 below). This shows that shifting public finance for coal could have a significant impact on coal power plant deployment in years to come, although private sector measures are also needed to tackle the vast majority of coal plants in development.

[115] Tong et al. (2019) **Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target**

[116] IPCC (2018) **Special report: global warming of 1.5°C**

[117] Please note that, for the purposes of establishing alignment with the Paris Agreement, the IEA's Sustainable Development Scenario (SDS) should not be used as a reference. Despite reassurances, SDS does not guarantee 1.5°C or even well below 2°C of warming. The IEA B2DS, while likely not sufficient either, is a better reference.

[118] IEA (2017) **Energy Technology Perspectives 2017**, p. 280.

[119] Climate Analytics (2019) **Coal phase-out**

Figure 25: Public funding of coal power plant projects in the pipeline

Countries	Pipeline status	Publicly funded coal units (MW)	Total pipeline – coal units (MW)	% being publicly financed
All	Announced, Pre-permit & Permit	37,682	338,571	11%
All (excluding China and India)	Announced, Pre-permit & Permit	37,682	210,821	18%

***Source**: E3G analysis Global Coal Plant Tracker data[120] and Global Coal Finance Tracker data[121]*

Despite being labelled a "transition fuel" for reducing emissions relative to coal, natural gas cannot credibly be considered low-carbon unless it is shown that there are no viable climate-neutral technology alternatives to meeting system needs, across the whole energy system. As their costs decline[122], the non-viability of alternatives is increasingly unlikely. Unchecked support for gas which does not consider this may displace climate-neutral alternatives (which may be more cost-effective), such as renewables, storage, interconnection, efficiency and demand-response technologies. The IPCC Special Report on 1.5°C is clear that global demand for gas must decline significantly ahead of 2030 to achieve a scenario of limited or no overshoot of 1.5°C.[123] Given that, as noted above, expansion of gas infrastructure could endanger the Paris Agreement goals[124], DFIs should focus their limited resources on providing support for climate-neutral technologies rather than on fossil fuels.

As purveyors of public finance committed to upholding the Paris Agreement, development banks need to be the global leaders in setting standards and norms. Given that additional fossil fuel infrastructure would breach the carbon budget for the Paris Agreement's 1.5°C goal, all national and multilateral development banks should cease support for fossil fuel infrastructure as soon as possible.

[120] End Coal (2019) **Global Coal Plant Tracker**

[121] End Coal (2019) **Global Coal Finance Tracker**

[122] IRENA (2017) **Electricity storage and renewables: Costs and markets to 2030**

[123] IPCC (2018) **Special report: global warming of 1.5°C**

[124] Tong et al. (2019) **Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target**

Carbon pricing: a growing practice in development finance

The High Level Commission on Carbon Pricing (HLCCP) recommends a range of carbon prices as part of the Carbon Pricing Leadership Coalition, which includes numerous countries and international financial institutions.[125] While worth using as a starting point, the HLCCP is not necessarily aligned with the Paris Agreement, as it is not consistent with pursuing efforts to limit global warming to 1.5°C. The HLCCP acknowledges that more work is required and says "work is under way to produce more of these scenarios."[126]

Institutions should be using a higher price on carbon that that recommended by HLCCP if they wish to ensure alignment with the Paris climate goals. The IPCC Special Report on 1.5°C concluded that estimates of carbon prices delivering a <1.5°C pathway range from USD 135–6050 tCO_2eq^{-1} in 2030, USD 245–14300 tCO_2eq^{-1} in 2050, and USD 420–19300 tCO_2eq^{-1} in 2070.[127]

As a matter of good practice, some institutions, such as the European Investment Bank (EIB), fully integrate pricing carbon into the economic appraisal of projects. This internalises the externalities rather than including carbon pricing analysis as a separate item or possible scenario to potentially consider.[128]

[125] **CPLC (2017 Report of the High level Commission on Carbon Pricing**

[126] High-Level Commission on Carbon Prices (2017) **Report of the High-Level Commission on Carbon Prices**

[127] IPCC (2018) **Special report: global warming of 1.5°C**

[128] EIB (2013) **The Economic Appraisal of Investment Projects at the EIB**

Asian Development Bank

Figure 26: An assessment of ADB's fossil fuel exclusion policies

Bank	Coal policies	Upstream oil and gas policies	Downstream oil and gas policies
Asian Development Bank	No official coal exclusion policy, but officials have stated that 'coal-based power plants no longer viable option to meet demand of developing countries' and 'no intention to finance coal in future'. Last coal project 2013	Oil and gas exploration is excluded. Gas field development financing permitted however	No exclusion policy

Source: *ADB (**2009**)*

The ADB does not have an official coal exclusion policy. The ADB's 2009 Energy Policy[129] states that the ADB "will selectively support coal-based power projects if cleaner technologies are adopted and adequate mitigation equipment and measures are incorporated into the project design" [130]. Coal mining for captive use within a power station is also supported, subject to criteria[131], as well as coal mines safety measures, carbon capture and storage, coal bed methane extraction and use, coal gasification and scrubbers, waste coal utilisation and "efficient" coal transportation[132]. This policy is set to be reviewed in 2020.

In practice however, the Asian Development Bank has not directly financed a coal project since 2013. Furthermore, the head of the ADB Energy Sector Group, Yongping Zhai, wrote in 2018 that "given the increasingly competitive cost of renewable energy technologies, the growing risk of stranded fossil fuel assets, and the rising shadow carbon price, coal-based power plants will no longer be a viable option to meet the electricity demand of developing countries". Yuichiro Yoi, Principal Investment Specialist in ADB's Private Sector Operations

[129] The AsDB Energy Policy is due to be reviewed over the course of 2020.

[ADB] (2009) **Energy Policy**. The document states elsewhere that: 'As new technologies—such as integrated gasification combined cycle and carbon capture and storage (or sequestration)—are shown to be technically feasible and economically viable, AsDB will support their deployment in DMCs to increase their financial viability'

[ADB] (2009) **Energy Policy, paragraph 59.**

[132] ADB Internal Evaluation Department (2019) Sector-wide Evaluation: ADB's 2009 Energy Policy and Program, 2009–2018, p. 5.

Department, also indicated that the ADB, like the rest of the world, is "moving away from coal"[133].

It should be noted that the ADB appears to have at some point between 2012 and 2017 financed new coal boilers as part of district heating improvement projects in China. The "Shanxi Energy Efficiency and Environment Improvement Project" in China financed the replacement of 232 old small coal boilers with five large new coal-fired boilers in four counties in China. The project completion report[134], which has just been published, states that "because locally produced coal is abundant, district heating in Shanxi relies primarily on coal". Further research is required to understand why alternative technologies were not used in the five new coal-fired boilers mentioned above, especially as the "heat source for Zhonyang district heating supply subproject was changed from a coal-fired boiler to a gas-fired boiler" during the project. The loan for this project was agreed in 2012 and the project was completed in 2017.

As regards oil and gas, ADB has excluded investments in oil exploration and development and gas exploration. ADB's 2009 Energy Policy states the bank "will continue its policy of not financing any oil and gas field *exploration* projects because of the associated risks" [135]. The Energy Policy also states that ADB "will continue to provide assistance for gas field development, and transportation and distribution of gas". The document also suggests that the oil sector in general does not need MDB finance[136], although a separate document states that refining, transportation and distribution of petroleum products, as well as small oil-based power plants for island or remote communities are supported[137].

ADB cites the lack of 'additionality' as a key reason why coal mining and oil field development are ruled out, as established commercial investors are already active in this area. However, there is a risk that the additionality justification for not funding these projects could be undermined if there is a shift away from exploration and development in private capital markets. There is therefore a need for ADB to strengthen its policies in this area.

[133] Jakarta Post (2019) **World moves away from coal and so does ADB**

[ADB] (2019) **People's Republic of China: Shanxi Energy Efficiency and Environment Improvement Project**

[ADB] (2009) **Energy Policy**

[136] Ibid.

[137] ADB Internal Evaluation Department (2019) Sector-wide Evaluation: ADB's 2009 Energy Policy and Program, 2009–2018, p. 5.

The ADB Safeguards Policy Statement[138] includes the ADB's environmental safeguards and is in turn based on the World Bank Group Environment, Health and Safety Guidelines[139]. These safeguards apply to projects that are directly financed by ADB and "risky" projects done by financial intermediaries[140]. The World Bank Group guidelines used do not reflect the best available technologies in this area. The section on thermal power plants is due to be revised during the 2019 calendar year. The Safeguards Policy Statement is also therefore due an update.

With regards to financial intermediary lending, the ADB Safeguards Operational Review states that "ADB conducts due diligence to assess all projects to be supported and the financial intermediary conducts due diligence to assess subprojects. Any subprojects categorised as A will also need to be appraised and monitored by ADB".[141]

Asian Infrastructure Investment Bank

Figure 27: An assessment of AIIB's fossil fuel exclusion policies

Bank	Coal policies	Upstream oil and gas policies	Downstream oil and gas policies
Asian Infrastructure Investment Bank	No coal exclusion policy, but AIIB has said no coal in pipeline	Oil and gas extraction permitted but unlikely as 'higher risk'	Permitted. Gas 'part of transition'

Source: *AIIB (**2017**)*

There is no official coal exclusion policy at AIIB.

The AIIB energy strategy, agreed in 2017[142], states that "carbon efficient oil- and coal-fired power plants would be considered if they replace existing less efficient capacity or are essential to the reliability and integrity of the system, or if no viable or affordable alternative exists in specific cases".

However, the President of the AIIB, Jin Liqun, has stated that "there are no coal projects in our pipeline, and we will not consider any proposals if we are

[ADB] (2009) **Safeguards Policy Statement**

[139] IFC (2008) **Environment, Health and Safety Guidelines**

[140] ADB (2009) **Safeguards Policy Statement**, paragraphs 65-67.

[141] ADB (2014) **Safeguards Operational Review, page. 82.**

[142] AIIB (2017) **Energy Sector Strategy**

concerned about their environmental and reputational impact"[143]. AIIB Vice-Presidents Joachim von Amsberg and Thierry de Longuemar have both also stated that the Bank will not fund coal[144].

On oil and gas, the strategy states that "the Bank will focus on supporting and accelerating its members' respective transitions toward a low-carbon energy mix", and that '"in many countries, gas-fired power generation would form part of such a transition".[145] The Energy Sector Strategy also states that the AIIB "will also consider development, rehabilitation and upgrading of natural gas *transportation* (including storage) and distribution networks, and control of gas leakage, to foster greater use of gas during the transition to a less carbon-intensive energy mix/power sector"[146]. However, the AIIB does not appear to have a policy to ensure that viable climate-neutral technology alternatives are exhausted prior to providing support for gas.

Upstream investments in oil or gas exploration are not mentioned, except to note that "there are ample opportunities for investments in oil and gas extraction as clients seek to improve the security of their energy supplies. However, such projects tend to involve higher risk and must be subject to thorough assessment".[147]

[143] AIIB (2017) **Opening address Jin Liqun AIIB Board of Governors meeting 2017**

[144] The Times (2017) **We will not invest in coal says China's would-be World Bank** and Foreign Policy (2017) **Even China-backed development bank won't touch coal projects**

[145] AIIB (2017) **Energy Sector Strategy**

[146] AIIB (2018) Energy Sector Strategy updated

[147] Ibid.

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China Development Bank

Figure 28: An assessment of CDB's fossil fuel exclusion policies

Bank	Coal policies	Upstream oil and gas policies	Downstream oil and gas policies
China Development Bank	No coal exclusion	No upstream oil and gas exclusion	No downstream oil and gas exclusion

Sources: *See paragraph below*

There is a lack of public information on the China Development Bank (CDB) and its fossil fuel project lending policies; however, the evidence shows that there are no blanket fossil fuel exclusion policies in place.

CDB has funded a number of coal power plants. According to available databases[148], these include the Port Qasim and Hub coal plants in Bangladesh and the Medupi[149] and Kusile[150] coal power stations in South Africa. The Bank has also supported gas[151] and oil[152][153] investments at various stages of the value chain.

Within its green bonds, the China Development Bank has excluded "clean coal and fossil fuel related technologies"[154].

It should be noted that other state-owned enterprises, such as the China Development and Investment Group, have already announced a complete exit from coal business[155].

Japan International Cooperation Agency

Figure 29: An assessment of JICA's fossil fuel exclusion policies

[148] NRDC, Han Chen (2018) **G20 Countries' Public Coal Financing Reaches Five-Year High**

[149] Ibid.

[150] Fin24 (2018) **Eskom inks R33.4bn loan deal with China Development Bank**

[151] LNG World News (2017) **China Development Bank agrees to buy and lease LNG duo**

[152] Stanford Global Projects Centre **China Development Bank's financing mechanisms: focus on foreign investments**

[153] AidData (2014) **CDB provided USD 2 billion USD loan to Sonangol**

[154] CDB (2017) **Annual report on CDB 2017 green bond**. Page 4.

[155] GHub (2019) **Comparative Analysis of Coal-fired Power Financing Policies of International Financial Institutions, Multilateral Initiatives, and Chinese Financial Institutions**

Bank	Coal policies	Upstream oil and gas policies	Downstream oil and gas policies
Japan International Cooperation Agency	JICA does not have a coal exclusion policy. Finance restricted to efficient coal technologies as per OECD guidelines.	N/A	No exclusion – new gas-fired power plants proactively supported

Source: *JICA (**2013**)*

JICA does not currently have any fossil fuel exclusion policies in place.

JICA's 2013 Energy Strategy paper states that JICA's lending to the energy sector will be "low-cost, low carbon and low-risk"[156]. However, JICA includes efficient coal investments in its definition of "low carbon". Its energy strategy states that:

> *"Coal-fired power generation produces more SOx, NOx, dust, and CO_2 than oil or gas-fired power generation. However, a **significant expansion of coal-fired power in developing countries is considered unavoidable in the future**. What is necessary in such a situation is to reduce CO_2 emissions as much as possible by utilizing every available technology. As Japan leads the world with this technology and is one of the few donors who can provide relatively large-scale funding for this field, JICA expects to play a significant role in disseminating the technology. JICA will **promote the introduction of technology for highly efficient coal-fired power generation in developing countries by utilising Japan's experience and technology**. It will also introduce technology to reduce CO_2 emissions, promote the development and utilisation of brown coal and other types of low-grade coal, strongly promote cooperation to support a stable supply of coal resources, and thus lead the world in this field."*[157] (emphasis ours)

The paper also states that the policy "contributes to CO_2 reduction as much as possible by utilising Japan's excellent technologies, introducing such low-carbon power sources as highly efficient thermal, hydro, geothermal, and other sources of renewable energy" [158]. The definition of "thermal" includes coal-fired power generation.

[156] JICA (2013) JICA's Strategy Paper for Energy Sector (provisional English translation – no link available)

[157] JICA

[158] Ibid.

It should be noted however that it is understood that JICA does not currently have any new coal projects in its pipeline, which suggests a shift of emphasis away from coal within the institution. Furthermore, leaked documents suggest that the President of JICA has advocated a coal phase out in internal Japanese government meetings[159].

The JICA Energy Strategy also mentions JICA will proactively provide support that includes "new development, rehabilitation, and replacement for countries that have appropriate conditions to construct gas-fired power plants". There is also evidence in JICA documents of investments in diesel generation[160].

Exploration for new fossil fuel resources is not mentioned within JICA's policy documents.

Despite not being an export credit agency, it would appear that JICA follows the OECD's guidelines or 'sector arrangement' on export credits as regards coal financing[161], or has made statements to that effect. This means that its financing is restricted to ultra super-critical coal power stations in richer non-International Development Association (IDA) countries and super-critical or sub-critical coal technology in the poorest IDA countries.

JICA guidelines on environmental and social impacts cite "climate change" as one of the impacts that has to be assessed but does not give any further detail[162].

[159] The Asahi Shimbun (2019) **Watered-down strategy against global warming draws criticism**

[160] JICA (2019) **Seminar on JICA support in African Energy development**

[161] OECD (2017) **Arrangement on officially supported export credits**, pp. 120-125.

[162] JICA (2010) **Guidelines for environmental and social considerations**

Korea Development Bank

Figure 30: An assessment of KDB's fossil fuel exclusion policies

Bank	Coal policies	Upstream oil and gas policies	Downstream oil and gas policies
Korea Development Bank	No coal exclusion. Restricted to efficient coal technologies as per OECD rules	No upstream oil and gas exclusion	N/A

Source: *Documents shared with E3G by Korea authorities*

KDB does not have any internal policies, guidelines or exclusions on fossil fuels[163] at any stage of the value chain.

It would appear that as part of the KDB's commitment to the Equator Principles[164], the bank has adopted[165] the 2008 IFC Environment, Health and Safety Guidelines[166] within its processes. However, as was mentioned with regards to the ADB above, the IFC guidelines are more than 10 years out of date (more recent updated versions exist) and therefore do not reflect the best available technologies in this area.

At the domestic level, the government power development plan does not include the construction of any new coal plants. There was also a political announcement from the Government of Korea in 2017 to move away from coal and nuclear power[167]. KDB has also stated that there will therefore be no new financing for domestic coal-fired power generation, as KDB follows government policy.

As regards KDB's investments outside of Korea, it does not have a coal exclusion policy and makes decisions on a case-by-case basis based on the need for coal-fired generation in the recipient country, impact assessment results and the

[163] Documents provided to E3G. The KDB does have "Environment and Social Review and Management Guidelines", however these do not appear to be publically available in English. KDB has also signed up to the Equator Principles, as mentioned in more detail in Chapter 6.

[164] See Chapter 6 for more details on the Equator Principles.

[165] Information provided to E3G by current and former staff of KDB.

[166] IFC (2008) **Environment, Health and Safety Guidelines**

[167] Engadget (2017) **South Korea turns its back on coal and nuclear power**

impact on Korean industry and the domestic economy. There are examples of KDB funding for coal power plants in Indonesia[168].

Like JICA, the KDB complies with OECD guidelines on export credits and restricts its financing to the more efficient coal power plants, with varying standards applying depending on the income level of the recipient country. This is despite KDB not being an Export Credit Agency.

There are examples in the public domain of KDB support for oil extraction and gas projects[169].

World Bank Group

Figure 31: An assessment of WBG's fossil fuel exclusion policies

Bank	Coal policies	Upstream oil and gas policies	Downstream oil and gas policies
World Bank Group	Coal financing only permitted in 'rare circumstances'. IFC has begun tracking financial intermediary exposure to coal. Last coal project in 2018.	Exclusion of upstream oil and gas (with some exceptions)	Lack of exclusions

Source: *WBG (**2010**) (**2013**) (**2017a**) (**2017b**) (**2017c**).*

The World Bank only permits coal financing in rare circumstances. The World Bank Group's Energy Sector Directions Paper (2013) states the WBG will provide financial support for greenfield coal projects "only in rare circumstances" and that "meeting basic energy needs in countries with no feasible alternatives to coal and a lack of financing for coal power would define such rare cases"[170].
The World Bank Group also has six Criteria for Screening Coal Projects[171], which date from 2010 and are:

1. Demonstrated developmental impact of the project;
2. Assistance is being provided to identify and prepare low-carbon projects;

[168] Asia Times (2018) **Korean Banks urged to halt funds for Indonesian coal fired plants**
[169] Oil Change International (2019) **Shift the subsidies database**
[170] WBG (2013) **Directions for the World Bank Group's Energy Sector**
[171] WBG (2010) **Criteria for Screening Coal Projects**

3. Energy sources are optimised looking at the possibility of meeting the country's needs through energy efficiency (both supply and demand) and conservation;
4. Full consideration of viable alternatives;
5. Coal projects will be designed to use the best appropriate available technology;
6. Environmental externalities will be incorporated in project analysis.

These six criteria could be strengthened further to be brought into line with the World Bank Group's latest coal approach set out in the Directions Paper. The note clarifies "upstream activities such as coal mining and processing" would be subject to the same guidance[172]. Technical assistance for upstream oil and gas is exempted[173]. The criteria also apply to "associated transmission infrastructure". Some analysis has shown however that the World Bank is in practice still supporting mines, railroads and transmission lines that are connected to coal. It should be noted that in 2018 the World Bank withdrew from its last coal project in Kosovo[174].

As regards financial intermediary lending, the World Bank Group has been criticised in the past for investing in financial intermediaries that in turn invest in coal. We note that a new draft IFC policy on financial intermediaries within the IFC Green Equity Strategy[175] is currently under discussion at Board level within the IFC. Elements of this approach are being piloted. IFC has also begun tracking financial intermediary clients' exposure to coal and cutting out high coal risk intermediary lending. The proposal includes plans to help intermediaries decarbonise.

IFC has in the past supplied USD 563 million to two commercial banks in the Philippines which in turn invested USD 13.4 billion in coal projects over the past five years[176]. It is welcome that IFC is taking steps to reduce the number of general purpose loans and moving towards using more targeted loans to address these kinds of issues.

[172] WBG (2010) **Criteria for Screening Coal Projects**

[173] See Technical Assistance Chapter.

[174] See Fossil Fuels Chapter.

[175] Devex (2018) **Civil society groups welcome IFC coal plan but push for more**

[176] BIC Europe, Inclusive Development International and PMCJ (2018) **Broken Promises: The World Bank, international investors and the fight for climate justice in the Philippines**

On oil and gas, the WBG announced in 2017 it will no longer finance upstream oil and gas after 2019[177]. This includes exploration, drilling and operating wells. There remain however some exceptions to this policy as the World Bank will continue to consider upstream natural gas "in the poorest countries"[178] and this exclusion does not apply to technical assistance. It is important to note however that in the document this exception is justified in terms of energy access, and it is unclear how an upstream natural gas exploration or development project contributes to energy access in a developing country. Furthermore, "prior actions" that are conditions imposed on the World Bank's Development Policy Lending do not appear to be subject to the World Bank's fossil fuel and oil and gas exclusion policies.

There are no exclusion policies for downstream oil and gas at the World Bank Group.

[177] World Bank (2017) **Q&A on upstream oil and gas**

[178] Ibid.

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CHAPTER 3
CLIMATE RISK, RESILIENCE AND ADAPTATION

Figure 32: An assessment of the banks' approaches to climate risk, resilience, and adaptation

DFI		Climate risk, resilience and adaptation
AIIB		Some progress – No comprehensive climate risk management process at project level
ADB		Paris-aligned – Dedicated strategy for climate risk at project level. Climate strategy takes beyond-project approach to client resilience
CDB		N/A – No evidence of climate risk, resilience or adaptation policies
JICA		Paris-aligned – JICA evaluates projects on vulnerability and climate-proofing, assesses clients' structural climate risk, relatively high spending on adaptation
KDB		Not Paris aligned – No processes to screen or manage climate risks at project level, no disclosure of adaptation finance
WBG	**IBRD/ IDA**	Paris-aligned – IBRD/IDA screen all projects for climate risk; climate resilience strategy includes systemic country view; relatively high levels of adaptation finance
	IFC	Some progress – IFC is implementing new project-level climate risk management processes; adaptation finance is low but there is the intention to grow this

Figure 33: Definitions for addressing climate risk, resilience and adaptation

Assessment	*Not Paris aligned*	*Some progress*	*Paris-Aligned*	*Transformational*
Addressing climate risk, resilience and adaptation	No project-level climate risk management, very little adaptation finance	Basic project-level climate risk management, lack of systemic approach to resilience	Comprehensive project-level climate risk management, enhancing client resilience, and scaling adaptation finance	Promoting project-level climate risk management, leading identification of structural needs, and catalysing broader adaptation finance flows

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Summary

This chapter examines how the six development finance institutions (DFIs) perform regarding climate risk, resilience, and adaptation in light of the physical impacts of global warming.[179] This analysis encompasses several key dimensions of performance: project-level climate risk management processes, both in terms of breadth and depth; efforts to enhance client resilience, ideally establishing priorities based on a structural view; and the growing and scaling of adaptation finance flows. The analysis concludes that, while certain institutions are leading the way, there is much more work to be done, especially given Asia's relatively high climate vulnerability. In particular, DFIs should develop and disclose: (a) comprehensive processes to screen and manage climate risks in their projects, (b) efforts to identify and overcome the barriers to resilience faced by their clients, and (c) policies to grow their portfolios of adaptation projects and their levels of adaptation finance. Climate risk and resilience is an area where, on the whole, many development banks have made good progress, and many are already aligned with the Paris Agreement. JICA in particular has led the way in this field.

Recommendations

> The AIIB should further strengthen its climate risk analysis tool.

> AIIB should move beyond the project-level climate risk analysis and take a structural view of needs and work to grow its adaptation portfolio. AIIB should put in place a dedicated resilience strategy.

> ADB should look to increase its climate adaptation finance.

> AIIB, KDB, CDB and JICA should consider getting more involved in the Pilot Program for Climate Resilience.

> KDB should implement and publish a climate risk management process.

> CDB should include climate risk and resilience in its regular country risk analysis reports.

> IFC should examine options for scaling its contribution to adaptation finance.

[179] In evaluating institutional approaches to climate risk, this chapter concentrates on physical climate risk from a changing climate and measures to enhance resilience to this risk—the chapter does not address climate-related transition risks, such as those associated with high-carbon infrastructure, and measures to mitigate those risks. Transition risks, however, remain a significant financial concern for certain classes of infrastructure projects in Asia.

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Background

Further global warming will increase the likelihood of severe, pervasive and irreversible impacts for people and ecosystems worldwide, including ocean acidification, sea level rise, heatwaves, and extreme rainfall.[180] Asia is one of the world's regions most vulnerable to climate change,[181] and so all DFIs active in the region have a responsibility to their clients, to their shareholders, and to the broader public to address climate risk and resilience across their operations.

This applies at the project level, where it is imperative that climate risk and resilience are fully integrated into project planning. DFIs should ensure all projects are (a) screened for climate risk and (b) examined for potential alternatives or resilience-enhancing measures which might save significant costs in the long-term[182] – and that unduly risky projects are avoided altogether.

Climate risk and resilience should also be addressed on a structural level; DFIs can play a vital role in identifying system needs and opportunities to increase resilience[183] as well as assisting countries with structural transformation to increase economy-wide resilience. Examples include helping countries develop resilient building codes or disaster risk reduction and management policies. In future, DFIs should move beyond a basic approach of minimising climate risk in investments, toward more proactive prioritisation of the investments most needed to reduce vulnerability and enhance resilience in communities and societies.

This wider view of how DFIs can address climate risk and resilience has been echoed as part of collective commitments made within the development finance community. The International Development Finance Club (IDFC) is working with the MDBs to promote the *Principles for Mainstreaming Climate Action within Financial Institutions*, which include a call to understand and manage climate risk: "Assess your portfolio, pipeline and new investments. Work with clients to determine appropriate measures for building resilience to climate impacts and improving the long-term sustainability of investments".[184] Moreover, the MDBs have committed to develop a joint approach to MDB alignment with the Paris Agreement, of which resilience and adaptation is one building block. Within this

[180] IPCC (2014) **AR5 Synthesis Report**

[181] HSBC (2018) **Fragile Planet: Scoring climate risks around the world**

[182] World Bank (2019) **Lifelines: The Resilient Infrastructure Opportunity**

[183] NCE (2016) **The Sustainable Infrastructure Imperative: Financing for Better Growth and Development**

[184] Joint IDFC-MDB Statement (2017) **Together Major Development Finance Institutions Align Financial Flows with the Paris Agreement**

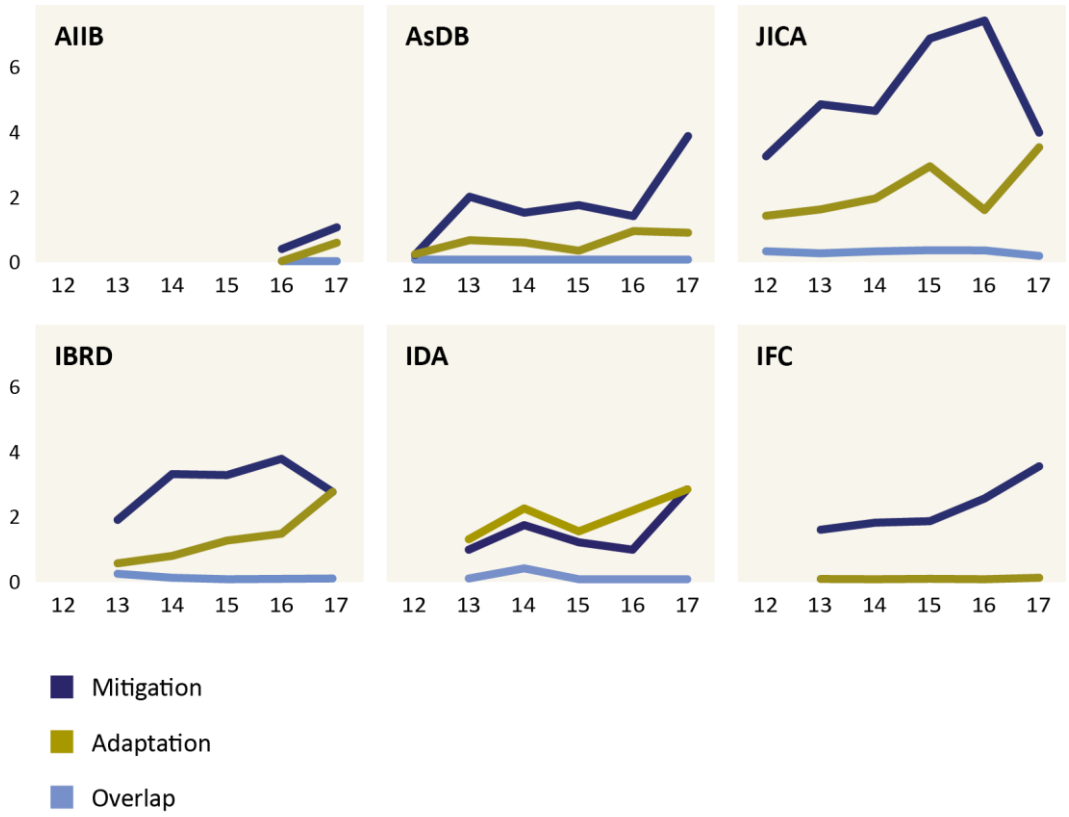
building block, one dimension is to "be active in managing physical climate change risks, in a manner consistent with climate-resilient development, and in identifying opportunities to make our operations more climate-resilient." The other dimension, addressing structural needs, is to "seek to support a significant increase in our clients' and their communities' ability to adapt to the adverse impacts of climate change".[185]

This chapter, similarly, takes a holistic view. Climate risk and resilience should be addressed across all infrastructure projects in the portfolio, and not merely those classed as adaptation projects. Moreover, there is a distinction between having a risk screening process and a larger process for managing risk, as screening a project for climate risk does not necessarily mean the project is made to be more resilient, or that it is considered within the context of structural or systems-level resilience. DFIs should seek to support the identification of resilience priorities and the development of resilience policies at national and other levels, by providing technical support and facilitating cooperation between institutions.

Scaling adaptation finance flows is of course also a key part of addressing climate risk and resilience. The figure below shows the evolution of adaptation and mitigation finance at some of the DFIs analysed in this report, showing that adaptation finance is generally increasing at all the MDBs and JICA (except for IFC, which is working to scale its adaptation finance).

[185] MDB Joint Declaration (2019) **The MDBs' alignment approach to the objectives of the Paris Agreement**

Figure 34: Climate-related finance reported to the OECD-DAC over 2012 to 2017 (USD billion)



***Source**: E3G analysis of climate-related development finance from OECD-DAC.*[186] [187]
Data was not available for CDB and KDB[188] *as these institutions do not report to the OECD-DAC.*

As a joint initiative, members of the MDB Climate Finance Tracking Working Group and the IDFC Climate Finance Working Group agreed in 2015 to a set of common principles for tracking climate adaptation finance, with the following steps:

> Set out the climate vulnerability context of a project

> Make an explicit statement of intent for a project to reduce climate vulnerability

[186] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[187] *Overlap finance* refers to projects which contribute towards both adaptation and mitigation activities.

[188] South Korea is a member of the committee and the Korea International Cooperation Agency (KOICA) reports its climate finance. KOICA only provided grant financing for climate over 2016 and 2017. This totalled USD 83 million, smaller than the USD 421 million of mitigation financing that KDB reported to the IDFC for just 2017.

> Articulate a 'clear and direct link' between project activities and climate vulnerability reduction.

In this framework, DFIs are supposed to solely report those project activities (that is, projects, project components, or elements or proportions of projects) that are clearly linked to the climate vulnerability context so as not to over-count adaptation finance.

Asian Development Bank

Figure 35: An assessment of ADB's approach to climate risk, resilience, and adaptation

Bank	Project-level climate risk management procedures	Scope of coverage of project-level climate risk management	Enhancing client climate resilience	Adaptation finance
ADB	ADB has a specific strategy for "Climate Risk Management in ADB Projects", involving both risk screening and risk-proofing.	ADB screens all projects for climate risks; a subset of these are examined for climate-proofing options.	There are clear efforts made to move clients towards climate resilience and beyond climate proofing.	ADB has slowly increased its levels of adaptation finance although it is still relatively low.

All ADB projects are screened for climate risks[189]. Initial screenings are made, and projects deemed to be medium- or high-risk undergo detailed climate risk and adaptation assessment, using dedicated tools such as *AWARE for Projects*. Once completed, a technical and economic evaluation of the adaptation options is undertaken, followed by identification of the most appropriate climate-proofing options. Lastly, the ADB monitoring and reporting system records the risk assessment and adaptation measures.[190] [191]

Addressing climate change (including building climate and disaster resilience) is one of ADB's seven operational priorities for its Strategy 2030.[192] ADB's Climate Change Operational Framework aims to support national policy reform, mainstreaming of climate actions into development planning, building institutional capacities, promoting policy coordination and harmonisation, and

ADB (2014) **Climate Risk Management in AsDB Projects**

ADB (2014) **Climate Risk Management in ADB Projects**

ADB (2014) **Climate Risk Management in AsDB Projects**

ADB (2018) **Strategy 2030**

efforts to translate NDCs into investment plans—as well as enhancing climate resilience beyond climate-proofing.[193]

ADB has slowly increased its levels of adaptation finance although it is still low, both in absolute terms and in relative terms compared with peer adaptation-to-mitigation finance ratios (see Figure 34).

Asian Infrastructure Investment Bank

Figure 36: An assessment of AIIB's approach to climate risk, resilience, and adaptation

Bank	Project-level climate risk management procedures	Scope of coverage of project-level climate risk management	Enhancing client climate resilience	Adaptation finance
AIIB	A risk management hierarchy exists in general terms but is not elaborated in the context of climate risk and adaptation.	The coverage is not comprehensive.	Little evidence exists of AIIB's work to enhance client resilience.	AIIB has only recently begun operations and begun financing adaptation projects, but the proportion is relatively high.

Under the environment and social framework, initial screening is done by AIIB; this determines the extent and type of environmental assessment that will be required. The client undertakes the assessment; AIIB then reviews and supports the client's evaluation of the implications of climate change using the *ThinkHazard!* tool.[194] [195] If a project is likely to have adverse environmental risks, further standards apply; AIIB has a general risk management hierarchy of avoid-minimise-mitigate-compensate/offset; and examination of project alternatives may be introduced.[196]

AIIB applies "Environmental and Social Standard 1" if a project is likely to have adverse environmental risks and impacts or social risks. Scope of this application and coverage is unclear.[197]

[ADB] (2017) **Climate Change Operational Framework 2017–2030**

[194] E3G Survey

[195] AIIB (2016) **Environmental and Social Framework**

[196] Ibid.

[197] AIIB (2016) **Environmental and Social Framework**

As regards enhancing client climate resilience, the AIIB sector strategy for Sustainable Cities includes resilience as a key objective.

China Development Bank

Figure 37: An assessment of CDB's approach to climate risk, resilience, and adaptation

Bank	Project-level climate risk management procedures	Scope of coverage of project-level climate risk management	Enhancing client climate resilience	Adaptation finance
CDB	N/A	N/A	N/A	N/A

No information is publicly available for CDB's approaches to climate risk, resilience and adaptation.

Japan International Cooperation Agency

Figure 38: An assessment of JICA's approach to climate risk, resilience, and adaptation

Bank	Project-level climate risk management procedures	Scope of coverage of project-level climate risk management	Enhancing client climate resilience	Adaptation finance
JICA	JICA procedure includes evaluating climate risk and climate-proofing options.	Comprehensive coverage.	Emphases on climate risk and technical cooperation puts JICA in a strong position to enhance client resilience.	JICA has a good track record and general upward trend in adaptation finance.

JICA promotes physical climate risk assessment and countermeasures. During the feasibility study, projects are assessed for climate vulnerability and required adaptation measures are identified[198].

[198] JICA (2016) **JICA's Climate Change Cooperation Strategy**

JICA works extensively beyond the project level on climate risk and adaptation, with a large portion of its climate change cooperation expenditures going to technical cooperation. One of its four climate change cooperation priorities is enhancing climate risk assessment and countermeasures, while another is policy support, capacity development, and institutional development.

Korea Development Bank

Figure 39: An assessment of KDB's approach to climate risk, resilience, and adaptation

Bank	Project-level climate risk management procedures	Scope of coverage of project-level climate risk management	Enhancing client climate resilience	Adaptation finance
KDB	Lack of progress	N/A	N/A	N/A

KDB does not have a climate risk management process and climate risk is not considered in the KDB project appraisal process[199]; only general environmental risks are considered.

Information on KBD's performance in enhancing client's resilience and providing adaptation finance is not publicly available.

[199] Information provided to E3G by current and former KDB staff.

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The World Bank Group

Figure 40: An assessment of WBG's approach to climate risk, resilience, and adaptation

Bank	Project-level climate risk management procedures	Scope of coverage of project-level climate risk management	Enhancing client climate resilience	Adaptation finance
IBRD/IDA	IDA projects are examined for risk and for resilience measures.	Comprehensive coverage	There is a dedicated strategy for risk/resilience taking the systemic view for client countries.	IBRD and IDA are steadily increasing their adaptation finance.
IFC	IFC screens projects for climate risk and manages risks where these are identified.	IFC is screening all relevant projects for climate risks.	Awaiting next steps for IFC to operationalise and assess outputs of the taskforce.	IFC has provided very little adaptation finance to date but has committed to improving this.

The World Bank Group's "Climate and Disaster Risk Screening Tools" can be applied at the project level. IDA operations are supposed to be screened for short- and long-term climate change and disaster risks and, where risks exist, appropriate resilience measures integrated in the project design[200]. The World Bank's risk mitigation hierarchy is anticipate/avoid-minimise-mitigate-compensate/offset, which should be applied, inter alia, to climate risks.[201]

All IDA projects are screened for climate change risks.[202] All IBRD projects have been screened for climate and disaster risk as of July 2017.[203] The IFC is applying sector- and investment-specific tools to systematically evaluate physical climate risk in new investment due diligence, "going beyond the existing environmental and social risk assessment".[204]

The new World Bank Group action plan for resilience intends to help countries shift to systematically managing and incorporating climate risks and opportunities across policy planning, investment design, and implementation—

[200] World Bank (2018) **Climate Risk Screening Tools**

[201] World Bank (2018) **World Bank Environmental and Social Framework**

[202] World Bank (2018) **Climate Risk Screening Tools**

[203] World Bank Group (2016) **Climate Change Action Plan**

[204] IFC (2018) **IFC Becomes First Development Institution to Make TCFD Disclosure on Climate Risk**

E3G

and calls for the integration of climate risks within each stage of Group operation design, implementation, and performance monitoring and evaluation. The World Bank Group's Climate Change Action Plan states countries will be helped with National Investment Plans to ensure 'climate smart' public investments.[205] Any new IDA Country Partnership Framework is supposed to integrate risk consideration into country development priorities.[206] Guidelines for climate risk are to be integrated in performance-based contracting for every infrastructure type.[207] The World Bank has a MultiCat programme which helps countries issue catastrophe bonds[208]; it also provides assistance for developing mechanisms such as weather derivatives[209].

The World Bank Group's *Adaptation and Resilience Action Plan*

In January 2019, the World Bank Group launched a standalone strategy[210] for its work on adaptation and resilience, with the following three core objectives:

1. Boosting adaptation finance
2. Driving a mainstreamed, whole-of-government programmatic approach
3. Developing a new rating system for adaptation and resilience

On the third point, the World Bank Group released a landmark report in July 2019 titled ***Lifelines: The Resilient Infrastructure Opportunity***. Among other findings, the report concludes that the extra cost of building resilience into power, water and sanitation, transport, and telecommunications systems is only 3% of overall investment needs. However, investing in more resilient infrastructure in low- and middle-income countries is estimated to yield an average of $4 for each $1 invested, with total net benefits of USD 4.2 trillion. The report offers a menu of actions for countries, allowing tailored approaches.

[205] World Bank Group (2016) **Climate Change Action Plan**

[206] World Bank (2018) **Climate Risk Screening Tools**

[207] See webpage: **https://wbgeconsult2.worldbank.org/wbgect/download?uuid=65fc8b11-3f54-4e41-a76a-ad5040b50e81**

[208] World Bank (2011) **MultiCat**

[209] World Bank (2012) **Financial Solutions for Catastrophe Risk Management**

[210] WBG (2019) **The World Bank Group's Action Plan on Climate Change Adaptation and Resilience**

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The report is based on an expanded view of resilience, holding that high-quality infrastructure should contribute to more than just the resilience of assets but also to the resilience of services and the resilience of users and broader systems. Drawing upon this report, the World Bank Group is developing a new rating system intended to serve as a global standard for classing the resilience of infrastructure, to be piloted later this year.

This strategy can be used as a blueprint for other development banks in their approach to climate risk and resilience.

Climate Investment Funds: Pilot Program for Climate Resilience

PPCR[211] is a USD 1.2 billion fund administered by Climate Investment Funds for assisting national governments to integrate climate resilience into development planning. It can also provide funding to implement a national adaptation plan. About 80% of the funding has already been deployed. This is a good example of a programme that identifies new resilience opportunities and helps countries to mainstream adaptation into development planning, which should in theory help countries develop structural resilience.

According to the 2015 results, as of December 2015, more than 2.8 million people have been directly supported by 20 PPCR projects under implementation.[212] In addition, 8 PPCR countries out of 17 have already developed or embedded climate change in their key national documents.[213] Under the PPCR, concessional financing has also been set aside for innovative private sector projects. IBRD and ADB are currently administering the largest amount within the PPCR programme.

[211] Climate Investment Funds (2016) **Pilot Program for Climate Resilience**

[212] CIF (2019) **Pilot Program for Climate Resilience**

[213] Ibid.

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CHAPTER 4
GREEN-BROWN ENERGY FINANCE RATIOS AND CLIMATE INVESTMENT

Figure 41: An assessment of the banks' green-brown finance ratios and climate investment

Bank	
AIIB	Scaled up climate financing but low green–brown ratio
ADB	Scaled up climate financing but low green–brown ratio
CDB	Not Paris-aligned – Fossil fuel investment outweighs climate-related energy investment. CDB has the largest level of fossil fuel financing of all institutions in this report.
JICA	Not aligned – Large investment in coal over the 2016–17 period
KDB	Not aligned – Low level of climate financing reported and high fossil fuel investments
WBG	Some progress – Progress has been made in certain sectors but only limited progress in others. Climate finance versus fossil finance is positive but more progress is required to phase out fossil finance.

***Sources**: E3G Assessment*

Figure 42: Definitions for green-brown finance ratios and climate investment

Assessment	*Not aligned*	*Some progress*	*Paris-Aligned*	*Transformational*
Green-brown energy ratio and scaling up climate investment in all sectors	Fossil fuel investment heavily outweighs climate-related energy investment	Climate investment increasing but low green–brown ratio	Scaling up climate investment in the energy sector and 'brown' lending at zero.	Scaling up climate investment in all sectors. 'Brown' lending at zero.

***Sources**: E3G Assessment*

Summary

The multilateral development banks are leading the national development banks on climate finance but none are Paris-aligned. In fact, since the Paris Agreement was signed, all institutions have *increased* rather than decreased their annual fossil fuel investments. China Development Bank and Korea Development Bank

in particular have low climate/fossil fuel financing ratios. China Development Bank is the largest financier of fossil fuels of all multilateral and bilateral development banks. As regards JICA, our analysis shows that 8% of JICA's *climate finance* went towards coal projects in the period 2012–2017[214].

This chapter takes a different format to other chapters as it considers the different metrics of climate finance and green–brown energy ratios in turn for all the banks.

Main findings

Analysis of the finance from these institutions shows that climate finance at some of these institutions has increased in recent years. The Asian Development Bank and the World Bank Group have increased their levels of climate finance since 2013. However, mitigation finance reported by JICA has decreased sharply from 2016 to 2017[215].

In terms of the sectoral breakdown of climate finance, JICA has the highest proportion of transport financing in its climate finance. JICA is counting coal projects as part of its climate finance, and 8% of the total energy related climate finance provided by JICA went to coal between 2012 and 2017, which accounts for almost USD 1 billion[216].

A comparison of the fossil fuel finance before (2013–15) and since (2016–17) the Paris Agreement was signed shows that all six of these institutions have increased their fossil fuel investments on an average annual basis. This includes the World Bank Group and the Asian Development Bank. This is concerning as it indicates that the Paris Agreement has not yet been a substantial driver for greening the portfolios of these institutions. It is possible that a time lag in implementing new policies and procedures has played a role in this.

Analysis of the breakdown of fossil fuel financing at the institutions shows that coal accounted for nearly all of JICA's fossil fuel financing in the years 2016 and 2017[217]. This is particularly concerning in terms of JICA's alignment with the Paris Agreement. During 2016–17, the Asian Development Bank, World Bank Group, and China Development Bank had a large amount of fossil finance at the

[214] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[215] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[216] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[217] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

exploration and extraction stages of investment, although it is notable that the World Bank has now pledged to end investment in upstream oil and gas[218].

China Development Bank and Korea Development Bank are lagging behind their peers in greening their energy investments. China Development Bank is the largest financier of fossil fuels among these institutions and has the most fossil-fuel intensive 'green-to-brown' ratio. AIIB has significant levels of funding towards natural gas. Finally, JICA had the most finance flowing to coal in its portfolio in 2016–17 in terms of volume of finance according to the Oil Change International dataset.

Finally, the three multilateral development banks are leading among the six institutions in terms of their 'green-to-brown' energy lending ratios but there are still substantial sums of finance going towards fossil finance at the MBDs, demonstrating that further leadership is required by this group.

Recommendations

> JICA should review its data policies and not include loans to coal power plants in its climate finance data submitted to OECD-DAC.

> World Bank, ADB, AIIB, JICA, KDB and CDB should work to reduce and phase out brown energy financing in order to redress their green–brown energy ratios.

> CDB, JICA and KDB should disclose project-level data as regards the data submitted to IDFC as the IDFC climate finance numbers are significantly higher than the equivalent figures from other databases.

> All banks analysed should consider reassessing their project pipelines in the light of their commitments to align with the Paris Agreement, to avoid a "time lag" effect in the implementation of the commitment.

Background

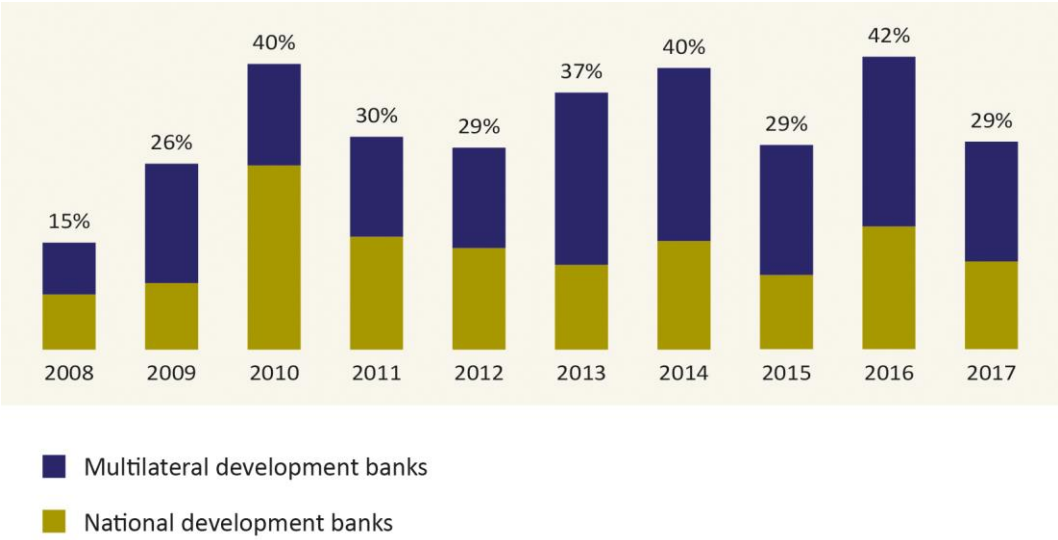
This section explores the available data to determine how fossil fuel investment compares to the climate-related investment at each institution. This is required to assess how an institution's wider portfolio is aligned with global climate goals[219] and ensure that institutions move rapidly away from unsustainable infrastructure investments. Multilateral development banks and national

[218] World Bank (2017) **World Bank Group Announcements at One Planet Summit**

[219] WRI (2018) **Toward Paris Alignment**

development banks have accounted for a third of foreign direct investment into clean energy in emerging markets from 2008 to 2017, demonstrating the role they can play in supporting a transition to a low carbon economy.

Figure 43: Multilateral development banks and national development banks investment in clean energy in emerging markets (% of total)

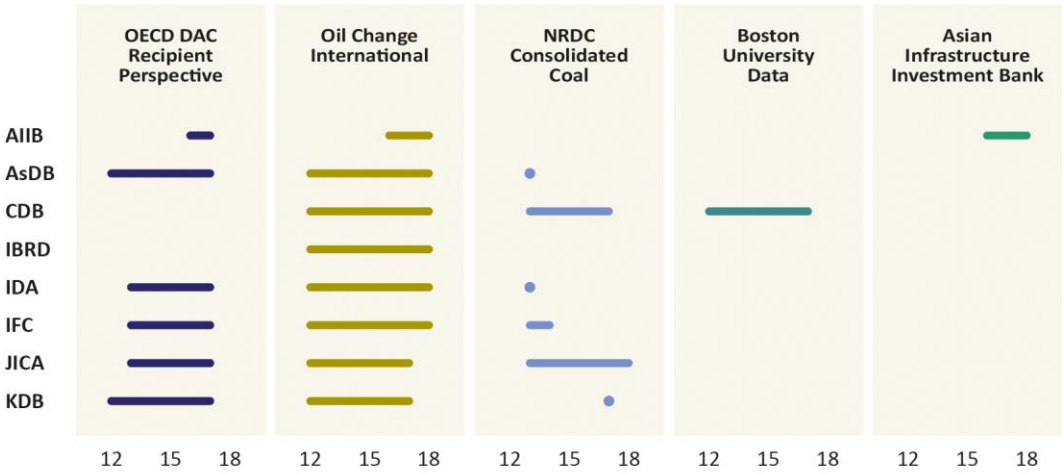


***Source**: Adapted from Bloomberg New Energy Finance*[220]

Five project-level datasets were consulted to determine data coverage across institutions. The figure below shows where data was included for each institution. The only dataset covering all six institutions is from Oil Change International (OCI), which covers all institutions for the years 2016 and 2017. Due to the level of data coverage and ability to directly compare across institutions, the Oil Change International and OECD-DAC Climate Finance datasets were chosen as the main datasets used (E3G only looked from 2012 onwards). The other three datasets provide more specific information, usually for a specific institution. More detail can be found in Annex 2. Where possible, E3G has tried to include as much lending as possible, not limited by geographical scope. However, it is harder to get information on domestic lending for banks such as the China Development Bank and Korea Development Bank.

[220] Bloomberg (2019) **The Clean Technology Fund and Concessional Finance**

Figure 44: Data coverage by institution and year



***Sources**: See annex for detailed information on each dataset*

Green–brown energy ratios

Figure 45: Ratio of energy-related climate finance vs fossil finance (average of 2016 and 2017). IFC is not included in the World Bank Group due to a lack of classification information.

***Source**: E3G analysis of climate-related development finance from OECD-DAC[221] and fossil finance data from OCI[222]. KDB and CDB are not included as they do not report to OECD-DAC.*

[221] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[222] Oil Change International (2018) **Shift the Subsidies database**

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The figure above depicts levels of energy-related climate finance using OECD-DAC data compared to the fossil finance at institutions where this data is available. The energy-related climate finance figures were identified by screening the OECD-DAC database of climate finance for energy-related projects, so this includes energy efficiency projects. It may also include some fossil-related efficiency projects depending on the definitions used by institutions in their self-reported data. KDB and CDB are not included as they do not report to the OECD-DAC.

As shown in the figure below, when such fossil efficiency projects are removed, the World Bank Group maintains its ratio, while the ADB and AIIB swap positions, due to the AIIB having a higher amount of fossil-related investments in its climate finance. This is caused by one gas distribution project (USD 245,845,000), which because of the small number of AIIB energy-related climate finance projects, takes up a large proportion of its total energy-related climate financing.

Figure 46: Ratio of clean energy-related climate finance vs fossil finance (Average of 2016 and 2017). IFC is not included in WBG due to lack of classification information

***Source**: E3G analysis of climate-related development finance from OECD-DAC[223] and OCI[224]. 'Clean' energy-related climate finance refers to the energy-related projects in the OECD-DAC dataset, with fossil-related projects removed. This includes those projects that were classified as fossil in figure 45. KDB and CDB are not included as they do not report to OECD-DAC.*

Finally, the figure below depicts the ratio of clean energy to fossil finance in the Oil Change data[225] – which uses the most restrictive definition of 'clean energy' projects and excludes large hydropower projects. All the institutions, including CDB and KDB, are included in the figure below, as all of these six institutions are featured in the OCI data set.

[223] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[224] Oil Change International (2018) **Shift the Subsidies database**

[225] Oil Change International (2018) **Shift the Subsidies database**

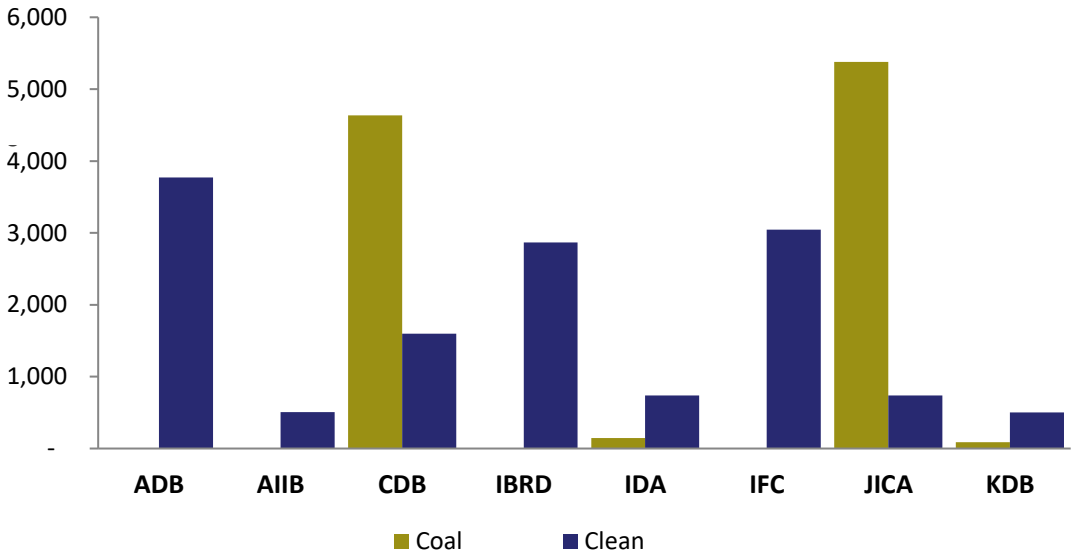
Notably, the numbers for 'clean energy' for the World Bank Group seem to show that the World Bank Group is the greenest of the six institutions. These ratios differ from the ratios in the two figures above, since the IFC is included in the figures for the World Bank Group within the OCI dataset, whereas IFC was not included in the figures for the World Bank Group in the two previous figures, due to lack of classification information reported to OECD-DAC.

Figure 47: Ratio of clean energy finance vs fossil finance (average of 2016 and 2017)

***Source**: E3G analysis of OCI data[226]. This graph includes IFC as part of the World Bank Group. The definition of 'clean energy' adopts a restrictive definition that does not include large hydropower.*

[226] Oil Change International (2018) **Shift the Subsidies database**

Figure 48: Clean energy finance compared to coal finance (total 2016 and 2017 in USD million)



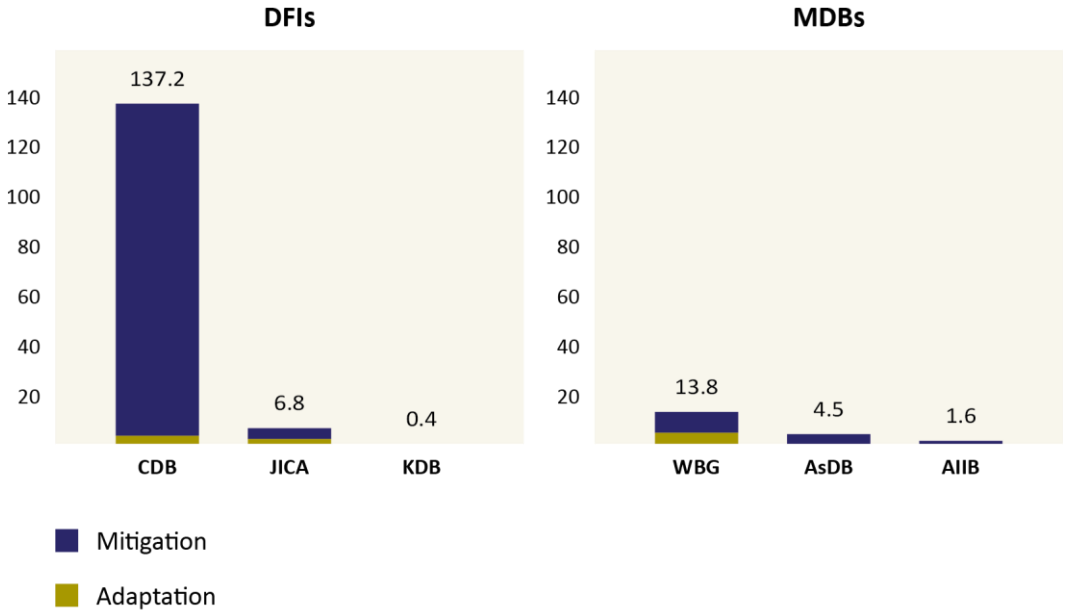
***Source**: E3G analysis of OCI data[227].*

Finally, the graph above shows coal projects in the portfolios of CDB, JICA, KDB and, among the World Bank Group institutions, IDA. It must be noted that the World Bank no longer has coal projects in its portfolio. The graph shows that among the six institutions, JICA had the most finance flowing to coal in 2016–17 in terms of volume.

[227] Oil Change International (2018) **Shift the Subsidies database**

Climate finance

Figure 49: Self-reported mitigation and adaptation financing in 2017 by institution (USD billion)



***Source**: E3G analysis of climate-related development finance from OECD-DAC data[228] for MDBs and IDFC data[229] for DFIs*

The figure above shows the level of mitigation and adaptation financing by institution, based upon their own reporting. The China Development Bank reported figures are an order of magnitude greater than the next highest reporting institution. This shows the size of the contribution that CDB is making to climate finance, and the power it has to shift financial flows from brown to green. E3G understands that the definition of climate finance used by CDB is relatively conservative, which is encouraging[230]. CDB is in particular credited for having supported the growth of solar PV manufacturing in China in the mid to late 2000s[231] which is the primary reason for the 80% decline in PV module costs between 2009 and 2015[232].

Project-level information is not provided and so the veracity of the data reported to the IDFC cannot be confirmed. It is clear however, that the operations of the

[228] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[229] IDFC (2018) **Green Finance Mapping 2018**

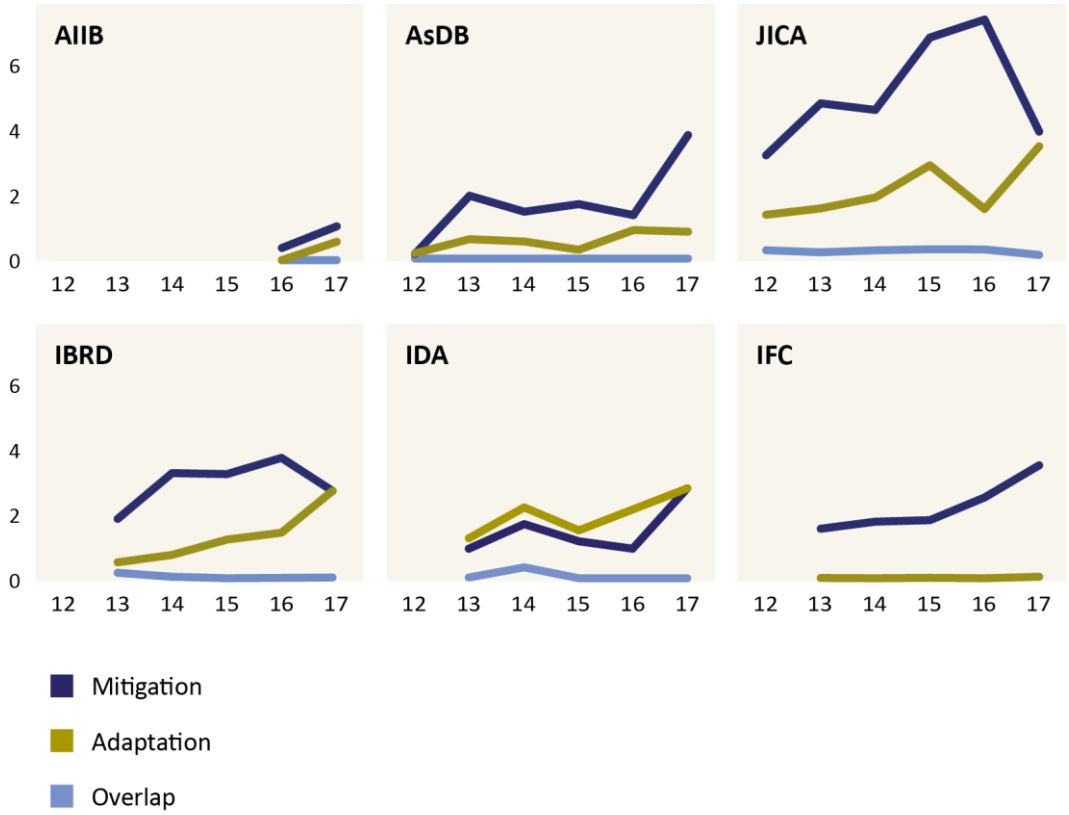
[230] Information provided to E3G by another DFI.

[231] WRI (2013) **China's overseas investments in the wind and solar industries**

[232] IRENA (2017) **IRENA cost and competitiveness indicators: rooftop solar PV**, page 26

China Development Bank regarding climate finance require further analysis since Boston University and Oil Change International project-level data on clean projects at CDB are much lower than that reported above. E3G understands that coal and nuclear are not included in the IDFC green finance data. Furthermore, high speed trains are also not normally included because there is a lack of information on the impact of these projects, for example, a shift from cars to trains. It should be noted that 90–95% of CDB activity is domestic[233] which makes it harder to assess its financing due to difficulty in getting this information.

Figure 50: Climate-related finance reported to the OECD-DAC 2012–2017 (USD billion)



***Source**: E3G analysis of climate-related development finance from OECD-DAC.[234][235] Data was not available for CDB and KDB[236] as these institutions do not report to the OECD-DAC.*

Figure 50 shows the level of mitigation and adaptation spending over time for the six institutions that report to the OECD. AIIB has less information available

[233] Information provided to E3G by IDFC

[234] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

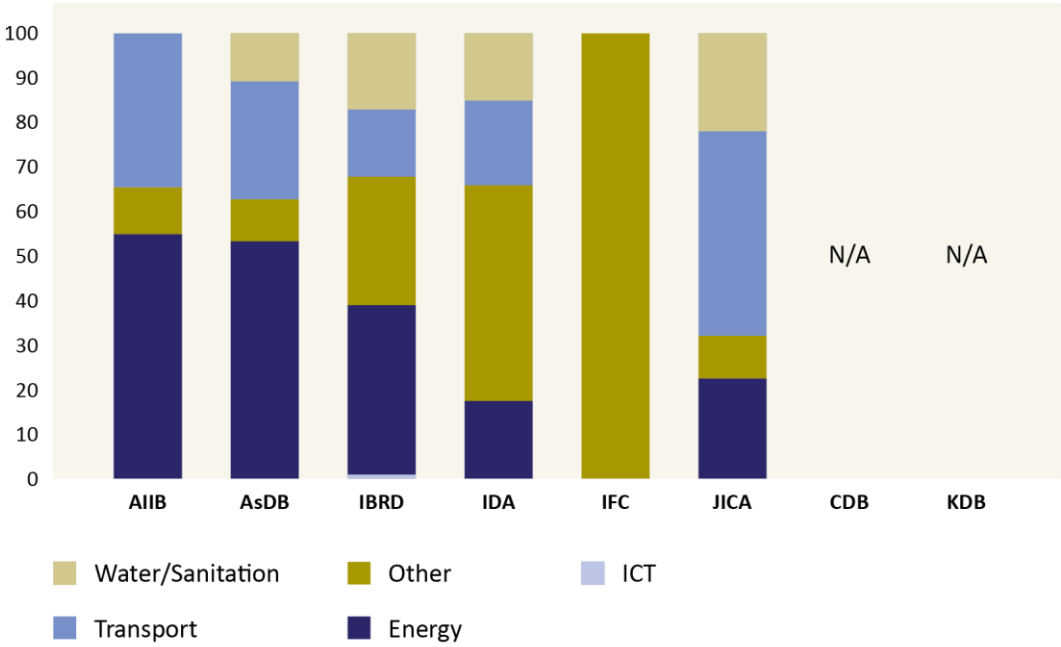
[235] Overlap finance refers to projects which contribute towards both adaptation and mitigation activities.

[236] South Korea is a member of the committee and the Korea International Cooperation Agency (KOICA) reports its climate finance. KOICA only provided grant financing for climate over 2016 and 2017. This totalled USD 83 million, smaller than the USD 421 million of mitigation financing that KDB reported to the IDFC for just 2017.

due to it being in the early stages of operation. JICA has consistently provided the most mitigation finance, however, as figure 52 below shows, JICA's climate finance also includes the most fossil fuel financing.

The overall trend shows that the Asian Development Bank (ADB), and the World Bank Group (WBG) institutions have had levels of climate finance increasing over time. However, mitigation finance reported by JICA has decreased sharply from 2016 to 2017. Equivalent data is not available for KDB and CDB. All institutions have a seen a steady increase in adaptation finance, although the World Bank's private sector arm, IFC, has traditionally provided very little in this area, possibly due to the private sector nature of its lending. Interestingly in 2017, for IBRD, IDA and JICA, adaptation and mitigation financing reached close to parity.

Figure 51: Percentage of climate-related development finance to different infrastructure sectors – average of 2016 and 2017



***Source**: E3G analysis of climate-related development finance from OECD-DAC*[237]

The graph above shows the climate-related development finance tagged by sector[238]. The IFC did not provide enough granular detail in 2016 and 2017 to tag

[237] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[238] In the OECD reporting system, "infrastructure" refers to the sectors of water and sanitation, energy generation and support, transport and communications (see **OECD, 2017**). We analysed **recipient-perspective OECD-DAC data** sorted by sector according to sectoral tags. Note that where the sector was not clear, the project was allocated to the 'Other' sector. The method was reliant on a search of the 'Sub-sector' and 'description' fields within the OECD-DAC data and

projects by their infrastructure sector, so all IFC projects are tagged as 'other' (see data transparency section). The IBRD and IDA also have a significant proportion of projects that fall under 'other'.

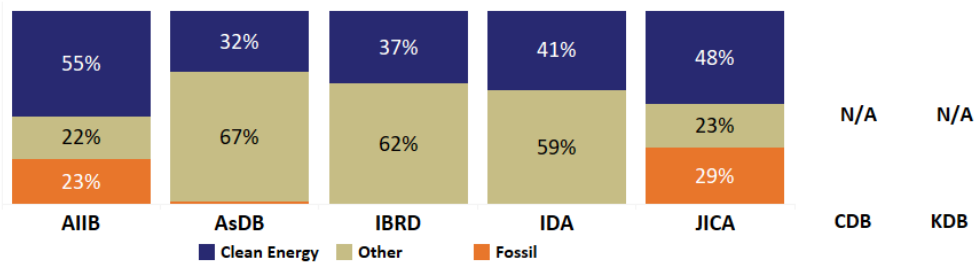
AIIB and ADB provide the highest level of finance toward energy, whilst JICA has the highest proportion of transport financing. This is unsurprising given Japan's strength in transport infrastructure. AIIB and ADB also have a significant proportion of transport-related infrastructure projects. As noted previously, data is not available for KDB and CDB. At AIIB, 88% of the installed power capacity financed by AIIB is renewable[239].

JICA is the only institution that reports to the OECD-DAC that has included coal financing of any sort under climate finance. We were unable to assess CDB and KDB because they do not report to the OECD. Our analysis has shown that between 2012 and 2017, 8% of the total energy-related climate finance provided by JICA went to coal, which accounts for almost USD 1 billion.

Fossil versus climate finance

The figure below looks at the breakdown of energy financing by type for 2016–17. Blue refers to energy sources that can be considered renewable, light brown refers to sources that are difficult to categorise[240], and orange is fossil fuels.

Figure 52: Percentage of energy-related climate finance by type (average 2016–17)



***Source**: E3G analysis of climate-related development finance from OECD-DAC[241]. Note that IFC is not included due to lack of classification information.*

some project data was missing. For example, for EIB in 2015, 61 of the project descriptions matched the 'short description' field.

[239] Information provided to E3G by AIIB.

[240] The sub-sectors in this category often don't provide enough information to definitively say whether they are renewables or fossil fuel. If no other information is provided then they are grouped under 'other'.

[241] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

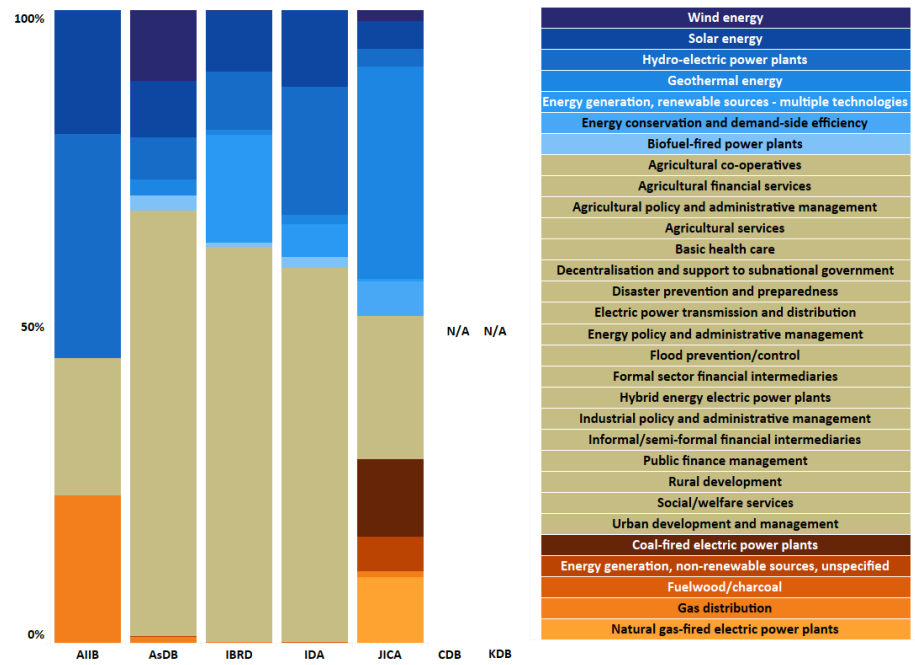
Figure 52 above shows that for JICA and AIIB, a high proportion of their climate finance reported to the OECD-DAC is made up of fossil fuel finance – 23% of AIIB's climate-related development finance and 29% of JICA's climate finance is fossil fuel finance. The two providers with the highest proportion of fossil fuel finance, JICA and AIIB, also provided the highest proportion of renewable energy finance. ADB and the World Bank institutions also have a greater focus on transmission and distribution, as well as broader energy policy financing. Figure 53 below shows that:

> For ADB, electric power transmission and distribution projects accounted for 29% of energy-related climate financing, and energy policy and administrative management accounted for 36%.

> For IBRD, electric power transmission and distribution projects accounted for 22% of energy related climate financing, and energy policy and administrative management accounted for 22%.

> For IDA, electric power transmission and distribution projects accounted for 48% of energy related climate financing, and energy policy and administrative management accounted for 9.5%.

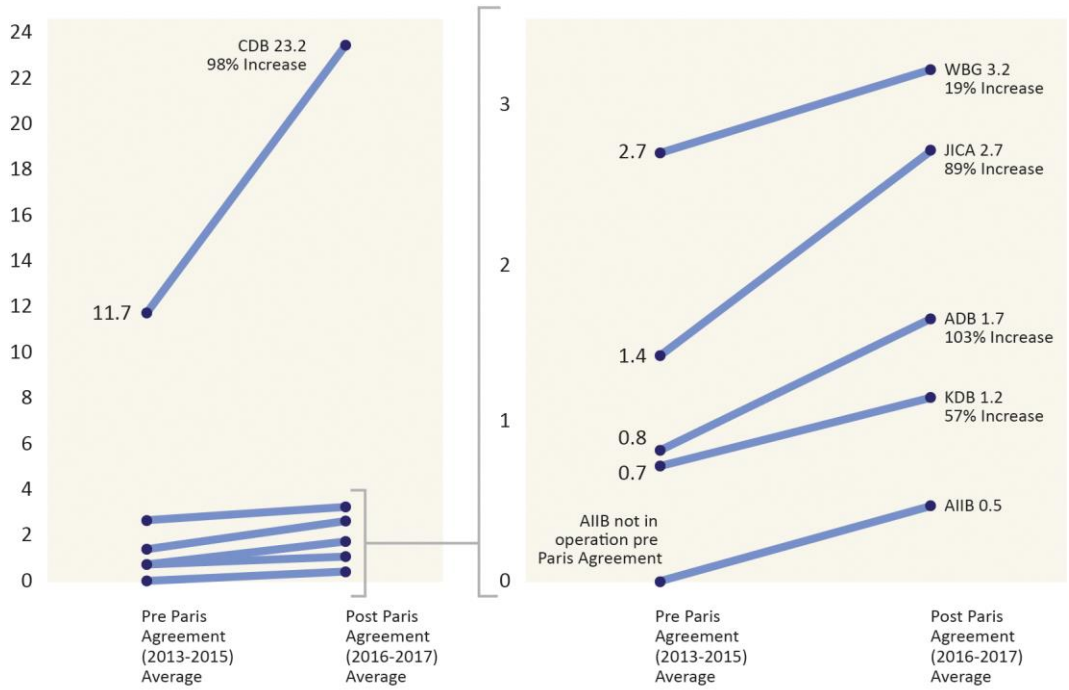
Figure 53: Percentage energy-related climate finance OECD-DAC (2016–17)[242]



[242] Source: E3G analysis of climate-related development finance from OECD-DAC . Note that IFC is not included due to lack of classification information.

Fossil fuel finance at the different institutions

Figure 54: Annual fossil fuel financing pre and post the Paris Agreement (Annual average in USD billion)



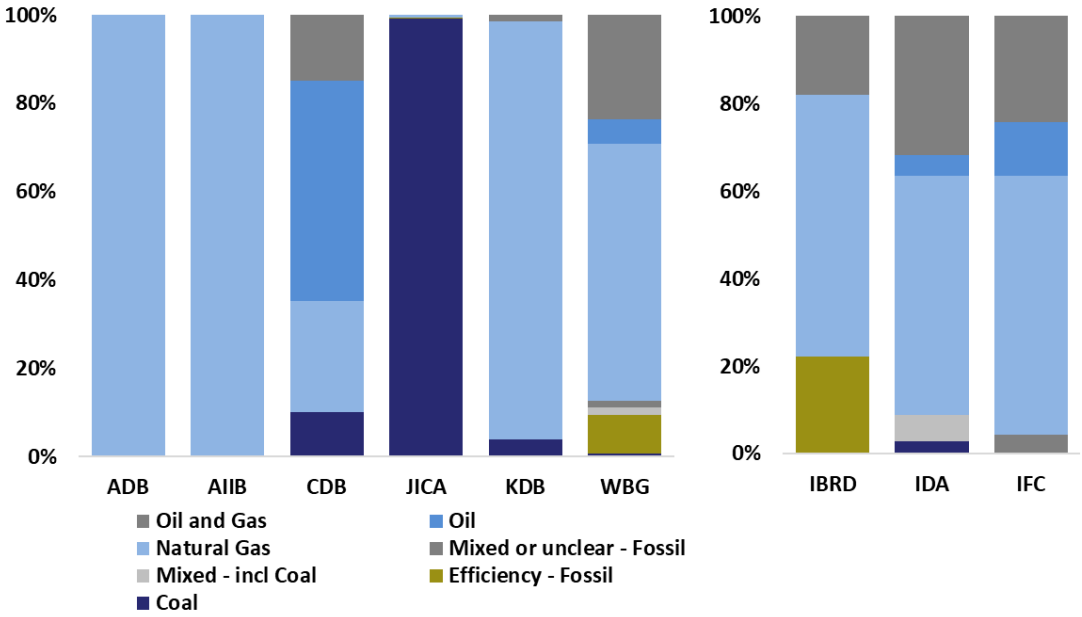
***Source**: E3G analysis of OCI[243] Fossil Finance data*

The figure above looks at the fossil financing of each institution pre and post the Paris Agreement (December 2015). It shows that every single institution that was operating pre-Paris *increased* its fossil fuel financing after the Paris Agreement was signed. The Asian Development Bank saw more than a 100% increase in its financing of fossil fuels, whilst the China Development Bank saw its fossil fuel financing increase to over USD 23 billion on an annual basis.

It is likely that many of these projects were in the institutions' pipelines before the Paris Agreement. However, this data highlights the shift that all these institutions must take in order to achieve Paris Agreement alignment, and the need for pipeline reassessment.

[243] Oil Change International (2018) **Shift the Subsidies database**

Figure 55: Percentage of fossil fuel financing by technology (2016–17 average)



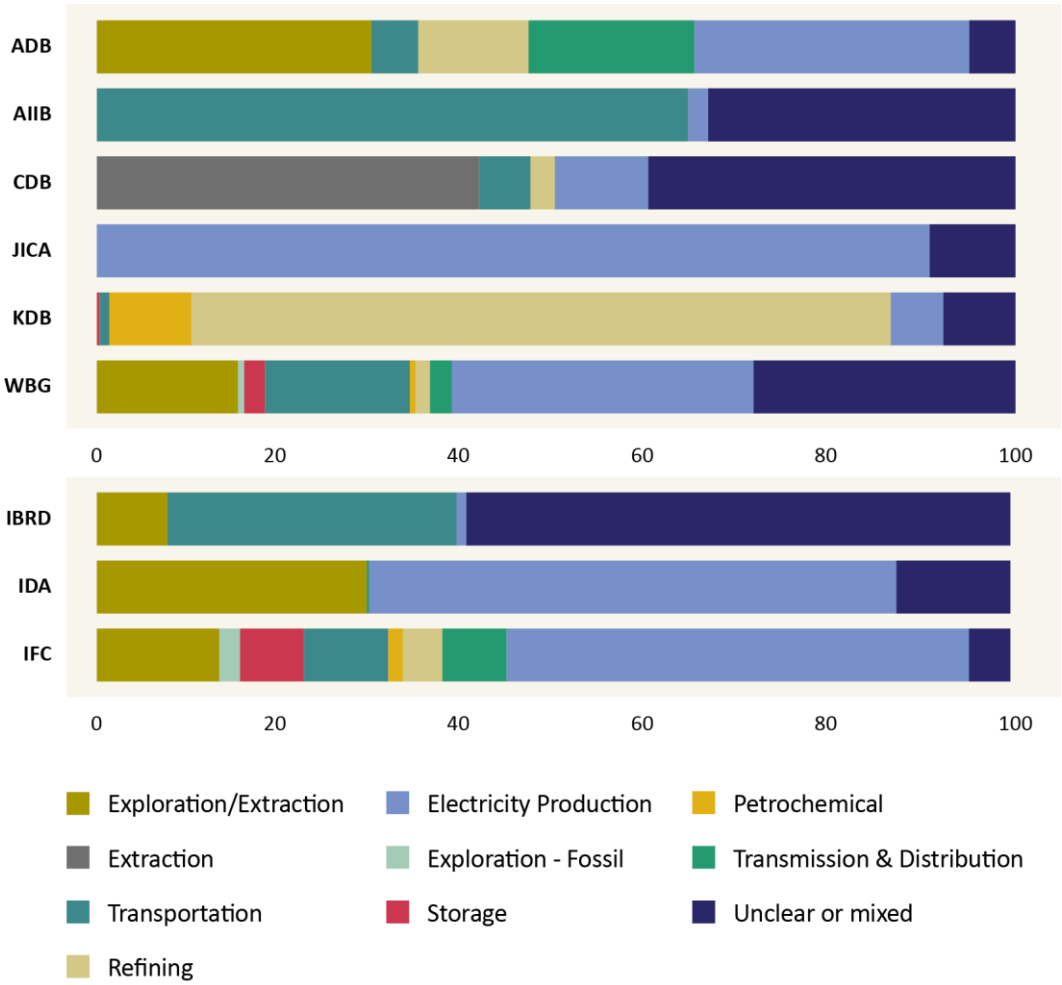
***Source**: E3G analysis of OCI[244] fossil finance data*

Figure 55 looks at the makeup of fossil fuel financing within each institution for 2016 to 2017. Coal accounted for nearly all of JICA's fossil fuel financing in this period. This is particularly concerning in terms of JICA's alignment with the Paris Agreement given that coal is the most emission-intensive of all the fossil fuels.

Natural gas accounted for the majority of fossil fuel financing in four of the six institutions (ADB, AIIB, KDB and WBG) and made up the entire fossil fuel portfolios of ADB and AIIB. China Development Bank's portfolio still included a large proportion of oil lending, compared to the other institutions. The World Bank Group's average reflects the dominance of natural gas in each member institution.

[244] Oil Change International (2018) **Shift the Subsidies database**

Figure 56: Percentage of fossil fuel financing by lifecycle stage (2016–17 average)



***Source**: E3G analysis of OCI[245] fossil finance data*

Figure 56 looks at funding by lifecycle stage. The Asian Development Bank and the China Development Bank in particular tend to fund projects at an earlier stage of the fossil fuel lifecycle. During 2016–17, the Asian Development Bank, World Bank Group, and the China Development Bank in particular had a large amount of fossil finance at the exploration and extraction stages of investment, although it is notable that the World Bank has now pledged to end investment in upstream oil and gas[246]. Upstream investment in exploration and extraction is particularly misaligned with the Paris climate goals because research shows that

[245] Oil Change International (2018) **Shift the Subsidies database**

[246] World Bank (2017) **World Bank Group Announcements at One Planet Summit**

significant portions of fossil fuel reserves must remain unused to prevent exceeding the 2°C target[247].

AIIB has the majority of its funding dedicated to the transportation stage of the fossil fuel lifecycle. The Korea Development Bank provides a large amount of money to refining and the World Bank Group and Japan International Cooperation Agency provide significant financing towards 'electricity production'.

[247] Nature (2015) **The geographical distribution of fossil fuels unused when limiting global warming to 2°C**

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CHAPTER 5
ENERGY EFFICIENCY STRATEGY, STANDARDS AND INVESTMENT

Figure 57: An assessment of the banks' energy efficiency standards

Bank	Energy efficiency
AIIB	Large focus on supply-side energy efficiency for existing energy infrastructure[248] and utility-led programmes. No buildings efficiency standards
ADB	Increased investment in energy efficiency priority; relatively weak standards in power generation and for financial intermediaries
CDB	N/A – only subsidiary CDBC has draft standards in power and buildings that have never been finalised
WBG (IDA/IBRD)	N/A – only transport sector has energy efficiency principles
WBG (IFC)	Relative and absolute standards for all sectors and financial intermediaries
JICA	Focus on formulating energy conservation master plans for countries within its Technical Assistance, but usually follows national energy efficiency standards in a country
KDB	No guidelines on energy efficiency standards

Figure 58: Definitions for energy efficiency policy, standards and investment

Assessment	*Not aligned*	*Misaligned*	*Paris-aligned*	*Transformational*
Energy efficiency policy, standards and investment[4]	Lack of integration of basic efficiency standards, low investment in efficiency	Incremental changes to improve energy productivity, some investment in efficiency	Energy efficiency standards across all sectors promote best available technology and identify investment needs; no carbon lock-in.	An energy efficiency first principle drives innovative approaches to delivery of efficient infrastructure. Demand side reduction prioritised over new infrastructure where possible; new infrastructure only built to highest energy efficiency standards

[248] **https://www.aiib.org/en/policies-strategies/strategies/sustainable-energy-asia/.content/index/_download/energy-sector-strategy.pdf**

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Summary

Each development financial institution (DFI) in this study has areas for improvement regarding the implementation of energy efficiency standards. Priorities for this implementation should be in those sectors where the DFI provides the greatest financing. All the DFIs can further incorporate an 'energy efficiency first' principle into their infrastructure lending. CDB, JICA and KDB have made slower progress on energy efficiency standards. All should begin to look at the best practice within development banks and aim to replicate this within their institutions.

Recommendations

> All banks should seek to set out energy efficiency policy as an integral part of their overall energy policy and other infrastructure investments. A useful guiding principle to apply is that of 'Energy Efficiency First'. This can build on or be completed by sectoral standards and principles as outlined below.[249]

> All banks should adopt ambitious building energy efficiency standards, e.g. new builds should be subject to location specific building codes and support for net-zero energy buildings in the region is critical[250] [251]. Standards set by the EU taxonomy on sustainable finance would be appropriate[252].

> For AIIB, ADB and IFC, power generation energy efficiency must include robust lifecycle emission performance standards.

[249] "Energy Efficiency First" is a guiding principle for energy policy that would require delivery of energy savings and demand response among end-use customers whenever these resources are less costly or more valuable than supply-side alternatives. It begins with use of a systematic procedure to assess the potential for energy savings and demand response as the first step in energy planning, investment, regulation, and market design. Policies, investments, and practical measures that increase energy savings and demand response among end-use customers must be prioritised wherever they are found to deliver higher net benefits than investments in networks or supply alone. From RAP (2017) **Efficiency First in the Energy Union: Progress Report.**
EU (2018) **REGULATION (EU) 2018/1999 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

[250] REEEP (2017) **Energy Efficiency Policy Recommendations: Southeast Asia Region**

[251] One study estimates that to limit warming to 1.5°C, buildings built after 2020 must be zero carbon for OECD countries, and after 2025 for non-OECD countries. Building renovation rates must increase from less than 1% per annum to 5% by 2020 for OECD countries, and 3% in non-OECD countries. Each retrofit must achieve a 90% direct emissions reduction. CAT (2016) **The Ten Most Important Short-Term Steps To Limit Warming To 1.5c**

[252] The benchmark considered by the EU sustainable taxonomy for investment in new buildings is to achieve the EU's 'Nearly Zero Energy Buildings' standard, which tightens over time. Outside of the EU, it recommends using equivalent national standards or recognised third party certification – such as LEED – to qualify new building investment as sustainable. In the absence of such standards, the taxonomy recommends using the top performing 15% of the building stock as a minimum performance benchmark representative of the best level of energy efficiency that can be achieved in a local context. A similar approach could be adopted by the financial institutions covered in this study. For building renovation, the taxonomy suggests achieving performance equivalent to the top 15% benchmark or energy savings of at least 30% in comparison to the baseline performance of the building before renovation. From EU Technical Expert Group on Sustainable Finance (2019) **Taxonomy - Technical Report**

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> IBRD and IDA are well placed to adopt the standards used by the IFC in other sectors.

> AIIB, ADB and World Bank should work to ensure that their common approach to the greenhouse gas accounting (GHG) of energy efficiency[253] does not extend the lifespans and absolute emissions of fossil fuel assets[254].

> JICA, KDB and CDB should work to improve the IDFC standards on energy efficiency. The IDFC have a less robust definition than the MDBs for retrofit energy efficiency[255] [256].

> AIB should consider developing more dedicated tools and targets to support the "Avoid-shift-switch" approach.

> CDB, JICA, KDB should adopt the practice of using the 'Avoid-Shift-Improve' approach for assessing transport[257] projects. It can be summarised as avoid (motorised travel), shift (to cleaner alternatives) and improve (the energy efficiency of transport)[258].

> All banks should consider applying the EU taxonomy's standards on power generation to their investments. The EU sustainable taxonomy identified ambitious standards for electricity generation facilities. A facility with life cycle emissions lower than 100gCO_2e/kWh, declining to 0gCO_2e/kWh by 2050, is eligible. The threshold will reduce every five years in line with a trajectory to net-zero.[259].

[253] World Bank (2015) **IFI Approach to GHG Accounting for Energy Efficiency Projects.**

[254] E3G (2017) **Greening Financial Flows: what progress has been made in the development banks?**

[255] IDFC (2014) **Climate Finance Tracking Comparison of MDBs and IDFC Methodologies**

[256] The 'Energy Efficiency First' principle outlined above should be applied by the DFIs. Operationalising this within each DFI depends on how each institution operates, ranging from taking more rigorous and detailed account of energy demand projections in decisions about the scope and scale of generation and distribution investments, to rebalancing supply and demand-side investments across an entire energy portfolio. Whichever direction DFIs take, choices should be informed by asking project promoters to assess their project against demand projections with varying levels of deployment of demand-side reduction measures. From Energy Efficiency Council (2019) **The world's first fuel**

[257] The Partnership on Sustainable, Low Carbon Transport (SLoCaT), found that in 2013, only 30% of official transport development finance supported low carbon transport.

The transport sector is important for mitigating climate change by shifting away from carbon intensive modes of transport, such as private cars, towards less carbon intensive modes such as public transit and railways. Rail only contributes 3% of transport emissions, despite accounting for 8% of passenger transport activity, and 28% of surface freight transport activity.

[258] Avoid refers to reducing the need for motorised travel and is linked to transport demand management and wider urban planning. DFIs that provide technical assistance are well placed to support this area. Shift refers to moving transport systems to less carbon intensive modes of transport, such as public transport systems or railways. This typically involves large infrastructure projects, meaning DFIs play a critical role in ensuring they help prioritise projects that support this shift. Improve refers to increasing the energy efficiency of specific transport modes, through methods such as increased fuel economy or electric vehicle adoption. From SLoCaT (2018) **Transport and Climate Change Global Status Report 2018**

[259] EU Technical Expert Group on Sustainable Finance (2019) **Taxonomy - Technical Report**

> All DFIs should provide more standardised reporting on energy efficiency financing, and more granular data, as the ADB has done.

Background

Energy efficiency can significantly reduce carbon emissions over short time periods, making it an infrastructure priority for countries and development institutions[260]. A major benefit of treating energy efficiency as infrastructure is supply side investment needs will fall, reducing costs to society[261]. DFIs must adopt an overarching energy efficiency principle that directs ambitious energy efficiency standards across a range of sectors to support this, as well as mobilising more finance to be targeted at energy efficiency.

Across the Association of Southeast Asian Nations (ASEAN), primary energy demand has increased 70% between 2000 and 2016 and electricity demand is expected to more than double by 2040[262]. Energy efficiency measures can significantly reduce this upward trajectory. The importance of focusing on efficiency is highlighted by the dominant use of fossil fuels in the region to meet growing energy demands[263]. Alongside industry and the residential sector, transport accounts for a significant proportion of energy consumption in Southeast Asia and is projected to rapidly increase[264].

Building, transport and power generation energy efficiency standards will be covered in this chapter. Whether DFIs require financial intermediaries to apply energy efficiency standards will also be addressed. This chapter will not provide a summary of all energy efficiency initiatives and technical assistance in place at each DFI. The below box provides a snapshot of cooling energy efficiency, an increasingly important area for DFIs. This is currently hard to assess due a lack of metrics and this box is designed to highlight its importance and the initial steps some institutions are making to address cooling energy efficiency.[265]

[260] E3G (2016) **Energy Efficiency as Infrastructure**

[261] E3G (2016) **Energy Efficiency as Infrastructure**

[262] Eco Business (2018) **Freezing in the tropics**

[263]UNESCAP (2019) **Energy and Development in the ASEAN Region**

[264] IRENA (2018) **Renewable Energy Market Analysis: Southeast Asia**

[265] E3G will undertake a project looking specifically at MDBs and cooling in 2020.

Cooling energy efficiency: a key challenge

The Kigali Amendment to the Montreal Protocol entered into force on 1 January 2019. It focuses on reducing emissions through F-gas phase out and energy efficiency improvements of cooling equipment[266]. Although offering two avenues for emission reduction, they are strongly linked due to the broad sectoral reach of cooling which covers buildings, vehicles, industrial processes and 'cool chains' for food and medicine[267].

Cooling accounts for nearly 10% of global electricity consumption and can be a significant portion of peak demand during hot periods[268]. In China and India, energy use for space cooling doubled between 2010 and 2017. Most of the 135 million air conditioners (ACs) installed annually are under half as efficient as the most advanced available technology [269]. In 2017, the amount of residential AC load connected to global power grids (estimated at 100GW) exceeded the record amount of solar generation added that year (94GW)[270]. In ASEAN, AC could account for up to 40% of overall electricity demand by 2040[271].

ADB and IFC are members of the District Energy in Cities Initiative, which supports market transformation efforts to shift the heating and cooling sectors to energy efficient and renewable energy solutions[272]. The IFC has funded a district cooling pre-feasibility study in Thane City, India[273] whilst ADB has produced a report on developing district cooling projects in China[274]. This was followed by a Technical Assistance project designing a climate-friendly, energy-efficient cooling initiative in Ningbo city, China[275].

[266] IEA (2019) **Cooling**

[267] Carbon Brief (2019) **Guest post: Why demand for cooling could make the world hotter**

[268] IEA (2019) **Commentary: Helping a warming world to keep cool**

[269] REN 21 (2019) **Energy Efficiency**

[270] Rocky Mountain Institute (2018) **Solving the Global Cooling Challenge**

[271] Eco Business (2018) **Freezing in the tropics**

[272] District Energy in Cities Initiative (2019) **Progress Report 2019**

[273] District Energy in Cities Initiative (2018) **Thane District Cooling Pre-Feasibility Studies**

[ADB] (2017) **District Cooling in the People's Republic of China: Status and Development Potential**

[ADB] (2018) **China: Developing a Climate Friendly Cooling Sector through Market and Financing Innovation**

The World Bank has a new programme providing TA to ensure efficient cooling is included in Bank projects and to help countries develop necessary market infrastructure, financing mechanisms, and policies and regulations to deploy sustainable cooling at scale[276]. Ascertaining present and future cooling requirements is the first step to determining the sectoral actions required to support a Paris-aligned outcome.

This programme is relatively new, meaning progress is hard to assess. All DFIs should align with this approach and begin incorporating efficient cooling considerations into project appraisal. For example; avoiding or mitigating heat island effects[277] and enhancing resilience to heat waves for urban infrastructure investments[278].

Institutions that provide TA are ideally placed to help deliver cooling needs assessments which can guide investment decisions by DFIs and governments in efficient, climate-friendly cooling solutions. A growing number of governments are developing national cooling action plans[279], which will also aid DFIs' decisions, and to which DFIs can add considerable value.

[276] World Bank (2019) **New Program to Scale Up Efficient, Clean Cooling in Developing Countries**

[277] Heat island effect is where higher temperatures are experienced in urbanised areas compared to rural areas due to the greater use of manmade materials and increased anthropogenic heat production.

[278] Such as can be supported through the **European Investment Bank's Natural Capital Financing Facility**

[279] See **India National Cooling Plan**; China's **Green Cooling Plan**; K-CEP (2018) **Global, regional, and country activities supported by the Kigali Cooling Efficiency Program**

Asian Infrastructure Investment Bank

Figure 59: An assessment of AIIB's energy efficiency strategy and principles

Cross-sectoral energy efficiency strategy/principle			
Key principle of energy strategy focuses on realising energy efficiency potential and references building, transport and industry sectors. There is a large focus on supply-side energy efficiency for existing energy infrastructure[280]. 15% of energy projects in AIIB are energy efficiency projects[281].			
Power generation EE	**Transport EE**	**Building EE**	**Financial intermediary EE**
Focus on utility-driven energy efficiency programmes	AIIB incorporates "avoid, shift and switch" into project selection	No standards included[282]	No standards included but often a stipulated % of EE sub-projects

Energy and transport are the two largest sectors financed, likely reflecting the Asia-region focus of the institution. Regional increases in population and urbanisation rates are leading to an increased demand for energy and connectivity[283]. AIIB expects investments in energy and transport to represent between 60 and 70% of its total exposure between 2019 and 2021[284].
For power generation, AIIB has funded the increased efficiency of two hydropower stations [285] [286]. AIIB's stated practice is to (i) rehabilitate and upgrade existing generation plants and (ii) pursue aggressive loss-reduction and utility-driven energy efficiency programmes in power and gas transmission and distribution networks[287]. Note this does not appear to consider lifecycle emissions from upgraded fossil plants due to the lifetime extension caused by this upgrade. A similar example of this is AIIB funding the increased efficiency of the Titas gas field, in order to maximise recovery of fossil fuels[288].

AIIB incorporates the practice of the "avoid, shift and switch" framework into transport project selection to assist clients in project design[289]. Furthermore, in AIIB's sustainable cities strategy, increasing public transport investments is a

[280] AIIB (2018) **Energy Sector Strategy**
[281] Information provided by AIIB
[282] AIIB (2018) **Sustainable Cities Strategy**
[283] PWC (2017 **Understanding infrastructure opportunities in ASEAN**
[284] AIIB (2019) **Investor Presentation**
[285] AIIB (2017) **Tajikistan: Nurek Hydropower Rehabilitation Project, Phase I**
[286] AIIB (2016) **Tarbela 5 Hydropower Extension Project**
[287] AIIB (2018) **Energy Sector Strategy**
[288] AIIB(2017) **Natural Gas Infrastructure and Efficiency Improvement Project**
[289] AIIB (2018) **Transport Sector Strategy**

short-term priority for AIIB[290]. E3G looked at the total transport financing for AIIB in 2016 and 2017 and compared this to transport-related climate financing reported to the OECD. Almost a third or 29% of AIIB's total transport financing is climate-related, due to one metro project (see Figure 110). A large proportion of AIIB's other projects are road projects. Clarification of how this framework is applied to transport project design is required from AIIB.

AIIB has no standards for building energy efficiency but the AIIB aims to follow the building standards in the country. If these do not exist or depending on the needs of the client, AIIB will aim for higher standards including international building standards.

AIIB intermediary sub-projects are not required to follow specific energy efficiency standards but the AIIB has placed a strong emphasis on having energy efficiency sub-projects in intermediary lending. For example, AIIB provided a USD 200 million credit line to a Turkish bank, requiring the share of renewable energy and energy efficiency projects to be greater than 60%[291], but did not specify which energy efficiency standards should be used.

Asian Development Bank

Figure 60: An assessment of ADB's energy efficiency strategy and principles

Overarching energy efficiency strategy/principle			
Energy efficiency a priority in climate strategy. References transport, buildings, and industry sectors[292]			
Power generation EE	**Transport EE**	**Building EE**	**Financial intermediary EE**
Follows IFC EHS Guidelines for Thermal Power	Adopted the "Avoid-Shift-Improve" approach	N/A	ADB does not require FIs to follow energy efficiency standards

Energy and transport are the two largest sectors financed.[293] The Climate Change Operational Framework states, "Energy efficiency […] should be among the

[290] AIIB (2018) **Sustainable Cities Strategy**

[291] AIIB (2018) **TSKB Sustainable Energy and Infrastructure On-Lending Facility**

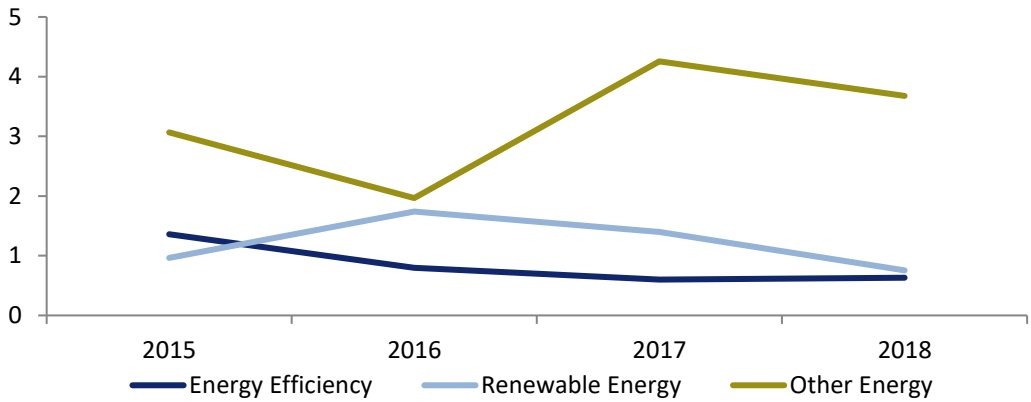
[292] ADB (2017) **Climate Change Operational Framework** C

[ADB] (2018) **Total AsDB Operations 2018**

highest priorities" and a focus is to "prioritise scaled-up investment in low greenhouse gas emission energy generation and energy efficiency"[294].

Recent research by ADB has suggested there is a need to increase the host country's demand for end-use energy efficiency projects, and to mainstream energy efficiency into ADB's operations. It also suggests that areas in which ADB can scale up its impact are in (i) regional and country-specific thematic energy efficiency programmes, (ii) investments in utility-sponsored performance-based energy efficiency resource programmes, and (iii) investments in raising energy efficiency standards[295].

Figure 61: ADB energy lending 2015–2018 (USD billion)



***Source**: ADB 2015[296], ADB 2016[297], ADB 2017[298], ADB 2018[299]*

ADB has adopted the Avoid-Shift-Improve approach as common practice for transport lending[300] [301]. However, in the mid-term review of its Sustainable Transport Initiative Operational Plan it has revised previous 2020 targets[302] downwards for the share of funding towards urban transport and railways. The 2025 targets are also lower than the previous targets for 2020. Please see the table below:

[294] ADB (2017) **Climate Change Operational Framework 2017–2030**

[295] Development Asia (2019) **Accelerating Energy Efficiency in Asia**

[ADB] (2015) **2015 Development Effectiveness Review**

[ADB] (2016) **2016 Development Effectiveness Review**

[ADB] (2017) **2017 Development Effectiveness Review**

[ADB] (2018) **2018 Development Effectiveness Review**

[ADB] (2009) **A New Paradigm for Urban Transport**

[ADB] (2018) **Addressing Climate Change in Transport**

[ADB] (2016) **2016 Development Effectiveness Review**

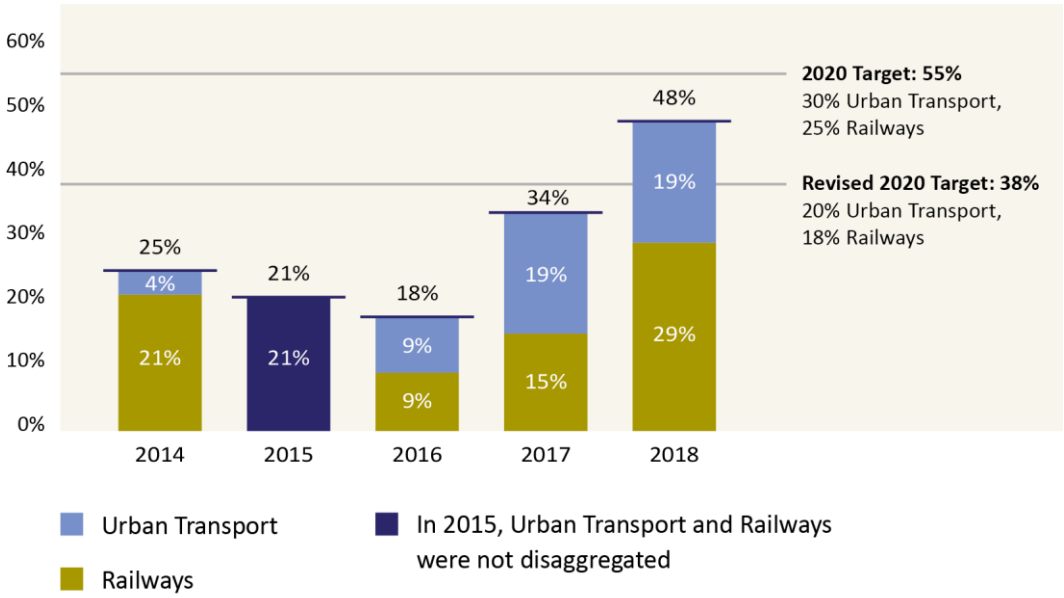
Figure 62: Revised Sustainable Transport Initiative Operational Plan Targets

Transport sub-sector	Previous 2020 Target	Revised 2020 Target	2025 Target
Urban Transport	30%	20%	27%
Rail	25%	18%	23%
Roads	42%	52%	40%
Others	3%	10%	10%

***Source**: Information provided by ADB staff*

Figure 63 below shows that the share of sustainable transport in ADB total transport lending is increasing and that the share of sustainable *urban* transport within that is also increasing. It also shows that ADB has reached its downward revised 2020 target.

Figure 63: ADB sustainable transport lending as a percentage of total transport lending (2014–2018)



***Source**: ADB 2014[303] , ADB 2015[304], ADB 2016[305], ADB 2017[306], ADB 2018[307]*

ADB (2014) **2014 Development Effectiveness Review**
ADB (2015) **2015 Development Effectiveness Review**
ADB (2016) **2016 Development Effectiveness Review**
ADB (2017) **2017 Development Effectiveness Review**
ADB (2018) **2018 Development Effectiveness Review**

However, when E3G looked at the total transport financing in ADB's annual reports for 2016 and 2017 and compared this to the transport-related climate financing reported to the OECD for the same years, only 12% of ADB's total transport financing was climate-related (Figure 110).

The reason for this is the reporting of transport projects within climate financing is based on the joint MDB approach, whereas 'sustainable transport' under the ADB has wider definition and addressing climate change is one of the components of sustainable transport projects.[308]

The Asian Development Bank report 'Toward a Sustainability Appraisal Framework for Transport'[309] begun the development of ADB's Sustainable Transport Appraisal Rating (STAR) framework. Analysis of 2014 approved transport projects found that environment was the category where 68% of projects were 'marginally sustainable or less', 18% were 'moderately sustainable' and only 14% were ranked as 'sustainable'. When broken down by transport type, both air transport and road transport projects were on average moderately unsustainable on the environment[310]. Analysis of more recent projects and how this links to the SDGs and Paris Agreement is being undertaken. ADB should make this available on their website.

As regards energy and power generation, ADB does not require a certain emission performance standard for its lending. ADB follows the IFC Environment, Health and Safety Guidelines which state that "new facilities should be aimed to be in top quartile of the country/region average of the same fuel type and power plant size" [311]. The guidelines also have "typical" CO_2 emissions performance of thermal power plants.

[308] Information provided by AsDB staff

[ADB] (2014) **Toward a Sustainability Appraisal Framework**

[ADB] (2015) **AsDB's SUSTAINABLE TRANSPORT APPRAISAL RATING (STAR)**

[311] IFC (2008) **Environmental, Health, and Safety Guidelines for Thermal Power Plants**

China Development Bank

Figure 64: An assessment of CDB's energy efficiency strategy and principles

Overarching energy efficiency strategy/principle			
N/A – There does not appear to be an overarching energy efficiency principle applied across key infrastructure sectors.			
Power generation EE	**Transport EE**	**Building EE**	**Financial intermediary EE**
Coal refurbishment and a requirement for 'analysis' of district heating/cooling potential in cities in draft CDBC guidelines[312]	N/A	Minimum energy performance standard in draft CDBC guidelines[313]	N/A

In 2018, urban renewal and public infrastructure accounted for over a third of CDB's financing, and the interlinked[314] area of transport accounted for 23%. In CDB's 2018 sustainability report[315], it appears the cumulative totals for railways accounted for RMB 1.54 trillion, highways accounted for RMB 3.19 trillion and urban rail transit projects accounted for RMB 0.72 trillion. The regional split of these investments is unclear.

E3G understands that CDB has a work plan on the full implementation of ultra-low emissions and energy saving reconstruction/refurbishment of coal-fired power plants. These projects get preferential credit terms[316].

There is a lack of information for CDB energy efficiency standards. A subsidiary of CDB, China Development Bank Capital (CDBC), has published a draft of '12 Green Guidelines' for urban development[317]. CDBC is currently funding 'new type' urbanisation projects in 40 cities across China and has set aside USD 15 billion for two pilot test cases which are utilising these green and smart guidelines. It is unclear whether these draft guidelines are applied to CDBC projects or in any wider China Development Bank funded projects[318] [319], as they were never

[312] Energy Innovation (2015) **12 Green Guidelines**

[313] Energy Innovation (2015) **12 Green Guidelines**

[314] CDB (2018) **2018 Annual Report**

[315] CDB (2018) **2018 Sustainability Report**

[316] Information provided to E3G

[317] Energy Innovation (2015) **12 Green Guidelines**

[318] Forbes (2016) **New Urbanization Guidelines Set To Fix China's Cities**

[319] Next City (2016) **Three Steps to Making the New Urban Agenda Implementable**

finalised but a version of these guidelines[320] are referenced in development plans within CDBC. These draft guidelines specify that in urban areas, every project should analyse the potential for district energy, such as combined heat and power (CHP), waste to energy, and waste heat re-use[321]. For building energy efficiency, the guidelines state that at least 70% of buildings should meet the Ministry of Housing and Urban-Rural Development (MOHURD) One-Star standard, 20–40% of buildings should be MOHURD Two-Star, and 5–15% of buildings should be MOHURD Three-Star within any development.[322]

World Bank Group

Figure 65: An assessment of WBG's energy efficiency strategy and principles

	Overarching energy efficiency strategy/principle			
	There does not appear to be an overarching energy efficiency principle applied to key infrastructure sectors			
IBRD /IDA	Power generation EE	Transport EE	Building EE	Financial intermediary EE
	N/A	Adopted the "Avoid-Shift-Improve" approach	N/A	N/A

	Overarching energy efficiency strategy/principle			
	There does not appear to be an overarching energy efficiency principle applied across key infrastructure sectors			
IFC	**Power generation EE**	**Transport EE**	**Building EE**	**Financial intermediary EE**
	Facilities should be in top quartile of EE for the region. New thermal power plants should comply with CO_2 Emissions Performance	Modal shift for transport from road to water or rail alternative	Reduce absolute energy use by at least 20%	EE through FI must achieve minimum thresholds

[320] Energy Innovation and Energy Foundation (2018) **Emerald Cities. This publication was largely based on the draft guidelines, and some copies had the CDBC logo on them.**

[321] Energy Innovation (2015) **12 Green Guidelines**

[322] Energy Innovation (2015) **12 Green Guidelines**

IBRD and IDA (which together make up The World Bank)[323] and IFC are differentiated in this chapter due to their differing standards on energy efficiency. This likely stems from the private sector focus of the IFC compared to the sovereign focus of IBRD and IDA.

IBRD and IDA

In IBRD and IDA, financing is spread across sectors, and energy and transport sectors are significant areas of finance[324]. In the IFC, financial institutions and infrastructure account for the largest financed areas[325]. Between 2010 and 2016, 68% of the World Bank Group's energy efficiency investments (excluding transport) went towards supply-side energy efficiency, and 32% towards demand-side[326]. This high share for demand-side energy efficiency is welcome and should be replicated by other MDBs[327].

IBRD and IDA have made slower progress on energy efficiency standards than IFC, with few publicly available standards for power generation and building energy efficiency.

On transport, IBRD and IDA adopted the practice of using the 'Avoid-Shift-Improve' approach. It does this by promoting modal shifts from higher emission modes such as roads to lower emission modes, including waterway, and railway. IBRD/IDA promote 'Avoid' through urban-transport nexus projects that finance transit-oriented development and compact city development. The Bank states that 'Improve' is less applicable to its portfolio due to these projects being closer aligned to the private sector and fleet improvements.[328]

IBRD and IDA also state that their goal is to encourage inland water-based transport to displace higher emission modes and low carbon trucking[329]. E3G analysis shows that 20% of IBRD and IDA transport financing go towards climate (Figure 110).

[323] World Bank (2019) **About**

[324] WBG (2018) **Fiscal Year Data**

[325] IFC (2019) **Industry Results**

[326] WBG (2017) **Enhancing energy efficiency to improve the air quality in Malopolskie and Silesia regions**

[327] WBG (2017) **Enhancing energy efficiency to improve the air quality in Malopolskie and Silesia regions**

[328] Information provided by World Bank

[329] World Bank (2016) **Shifting Gears: Toward Resilient And Low Carbon Transport**

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IFC

For building energy efficiency, the IFC's EDGE (Excellence in Design for Greater Efficiencies) programme defines a "green building" as one that reduces energy and water use by at least 20%[330]. IFC aims for 20% of new construction in new markets to be certified green within seven years of launching EDGE. The same document also states there is a goal for at least 50% of building interventions to be green[331]. Other development institutions should look to adopt a similar approach to IFC and strengthen their energy efficiency requirements[332], noting that IFC must follow legally mandated national building codes if more stringent[333].

For power generation, IFC funded facilities should be in the top quartile of energy efficiency for the region. Rehabilitation must achieve significant improvements in efficiency[334]. The performance standard document is reportedly updated periodically.

IFC is the only DFI within this study that requires energy efficiency standards to be upheld by its financial intermediaries. At least one of these minimum thresholds must be met[335]:

> Reduce absolute energy consumption by at least 15%

> Reduce GHG emissions by at least 25,000 tCO_2e/year,

> Reduce electricity consumption by at least 50 GWh/year.

Energy efficiency is part of the IFC's Climate Assessment for Financial Institutions (CAFI) tool, designed to help support financial institutions in assessing and documenting climate finance sub-projects. It is currently used by 74 client FIs in 37 countries[336] [337].

For transport, the IFC has a practice of supporting a modal shift for transport of cargo from road to a water- or rail-based alternative[338]. It also supports a shift to

[330] Anthesis (2017) **EDGE – Excellence In Design For Greater Efficiencies -**

[331] IFC (2016) **IFC Climate Implementation Plan**

[332] Asia Times (2019) **Energy efficiency makes financial sense**

[333] IFC (2016) **IFC Climate Implementation Plan**

[334] IFC(2017) **Guidelines for Thermal Power Plants**

[335] IFC (2017) **IFC Greenhouse Gas Reduction Accounting Guidance For Climate Related Projects**

[336] IFC (2018) **Sustainable Energy Finance Through Financial Institutions**

[337] World Bank (2019) **CAFI: How to improve transparency in climate reporting by the financial services industry**

[338] IFC (2016) **IFC Climate Implementation Plan**

the electrification of transport and reducing GHGs through improved demand-side optimisation. As of June 2017, ports account for 42% of IFC's committed transport portfolio and airports accounted for 19%. Urban transport and railways combined[339] account for only 5%.

Japan International Cooperation Agency

Figure 66: An assessment of JICA's energy efficiency strategy and principles

Overarching energy efficiency strategy/principle			
Focus on formulating energy conservation master plans for countries within Technical Assistance; energy efficiency one of the core three pillars of its approach to energy[340] [341] [342]			
Power generation EE	**Transport EE**	**Building EE**	**Financial intermediary EE**
JICA likely adheres to OECD guidelines on coal-fired stations.	The bank does not have policies or guidelines on energy efficiency standards, and usually follows the recipient country requirements.		

In 2017, over 40% of JICA's loan financing was directed towards transport infrastructure, a clear priority area. Energy accounted for 8% of loan financing[343]. JICA does not have policies or guidelines on energy efficiency standards and usually follows the recipient country requirements, which are in many cases much lower than international standards. JICA does have a large focus on energy efficiency Technical Assistance however.

Despite a lack of standards, JICA's climate-related transport financing as a percentage of total transport financing stands at 42%, the highest of the DFI's with data available (Figure 110). This is due to higher levels of rail financing compared to the other DFI's. However, JICA provided USD 167 million of climate financing towards the building of a new terminal for Borg El Arab Airport in Egypt. This project uses the 'Eco-Airport' concept which refers to the use of solar power, high efficiency air conditioning and LEDs. Due to this, JICA reported the entire USD 167 million as climate finance, despite an increase in airport capacity

[339] IFC (2018) **IFC: A Leading Investor in Emerging Market Transportation**

[340] JICA Energy Strategy (Has been taken offline)

[341] JICA (2019) **Energy Activity**

[342] JICA (2016) **JICA's Position Paper on SDGs: Goal 7**

[343] JICA (2018) **2018 Annual Report**

leading to an increase in carbon emissions[344]. The policy of including airport expansion under climate finance should be reviewed going forward.

There are some energy efficiency standards applied to JICA's coal financing. JICA appears to follows the OECD's guidelines or 'sector arrangement' on export credits as regards coal financing[345]. This is despite JICA not being an Export Credit Agency. This means that its financing is restricted to ultra-supercritical coal power stations with an emissions performance standard of 750g CO_2/kWh or lower in richer non-IDA countries, and supercritical or subcritical coal technology in the poorest IDA countries. Research has shown that even these ultra-supercritical coal power stations are not aligned with the Paris Agreement[346].

Korea Development Bank

Figure 67: An assessment of KDB's energy efficiency strategy and principles

Overarching energy efficiency strategy/principle			
There does not appear to be an overarching energy efficiency principle applied across key infrastructure sectors			
Power generation EE	**Transport EE**	**Building EE**	**Financial intermediary EE**
Adheres to OECD guidelines on coal-fired stations	No separate guidelines on energy efficiency[347]		

Little information is publicly available on the sectors financed by KDB. For KDB's project finance, there are no separate guidelines for energy efficiency in transport, buildings and financial intermediaries[348]. For coal power generation, KDB adheres to the OECD guidelines – only coal-fired stations that use ultra-supercritical boiler technology can obtain public financial support, except in IDA countries where lower standards apply.[349] Research has shown that even these ultra-supercritical coal power stations are not aligned with the Paris Agreement[350]

[344] JICA (2018) **Modernization and extension of Borg El Arab International Airport**

[345] OECD (2017) **Arrangement on officially supported export credits**, pp. 120-125.

[346] Shareaction (2018) **Banking Beyond Coal: Sustainable Development Without Coal Finance**

[347] Information provided to E3G by current and former KDB staff.

[348] Ibid.

[349] Ibid.

[350] Shareaction (2018) **Banking Beyond Coal: Sustainable Development Without Coal Finance**

There have not yet been any instances of climate change/energy issues being considered when financing projects in the transportation field. However, there are plans to finance projects related to hydrogen/electric charging stations, electric vehicles, and public transportation[351].

[351] Ibid.

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CHAPTER 6
PROMOTION OF GREEN FINANCE

Figure 68: An assessment of the banks' promotion of green finance

DFI	Promotion of green finance
AIIB	Some progress – AIIB has emerging promotion of green finance among market participants and institutions.
AsDB	Some progress – AsDB is helping to drive green bond markets through its own issuance and its support of other issuers.
CDB	Some progress – CDB has an elaborate vision for building a green finance ecosystem and is setting standards with its own green bond framework.
JICA	Some progress – JICA has issued SDG-aligned bonds and is engaged in initiatives around TCFD adoption as well as developing emerging bond markets.
KDB	Some progress – KDB has issued a green bond and is committed in principle to spreading knowledge and analysis of green industry markets in developed and developing countries.
WBG	Paris-aligned – WBG is promoting green finance in banks, local and national institutions, insurers and regulators with a number of potentially transformational initiatives.

Sources: E3G Assessment

Figure 69: Definitions for promotion of green finance

Assessment	Not Paris-aligned	Some progress	Paris-Aligned	Transformational
Promotion of green finance	Lack of support for green finance	Limited promotion of green finance and green finance policy, including fiscal and tax reform	Emerging promotion of green finance in banks, local and national institutions, insurers and regulators	Driving systemic change across all actors including among banks and regulators, local and national institutions and regulators

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Summary

Achieving the goals of the Paris Agreement requires greening financial markets and building green finance ecosystems. DFIs should work to pioneer green financial products in countries where these markets are undeveloped, while engaging with private investors, banks, and insurers as well as public institutions and regulators to promote green finance policies and practices. All development financial institutions should seek to follow the recommendations of the TCFD on climate-related disclosure, while also working actively to promote these disclosure standards among market participants and regulators. Additionally, DFIs should engage with market participants and financial intermediaries to ensure that finance is not directed to high-carbon or climate-vulnerable infrastructure.

Recommendations

> AsDB should focus more on technical assistance to regulators on how to green national financial systems.

> AIIB should deliver on the aims of its Sustainable Capital Markets Initiative and encourage a shift from high-carbon or climate-vulnerable infrastructure.

> JICA should explore issuing climate-focused bonds and work to share Japan's experience developing its green finance system and green bond market. This could be part of JICA's technical support offered to developing-country institutions and market participants, particularly in ASEAN countries.

> KDB should increase transparency on its green finance activities, potentially in its annual reports, and should pursue and promote TCFD recommendations.

> CDB stated that its information disclosure will follow international practices; therefore, the bank should follow TCFD recommendations on climate-related financial risks and lead by example in managing and avoiding those risks.

> CDB and its partners should work to fully implement and strengthen the Green Investment Principles for the Belt and Road[352].

> WBG should build on existing green finance initiatives and should deliver on its plans in order to have a transformational impact.

[352] City of London Corporation's Green Finance Initiative (GFI) and China's Green Finance Committee (GFC) Green Investment Principles for the Belt and Road

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Background

"Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development"— as outlined in Article 2.1.c of the Paris Agreement[353]— will require an overhaul of the financial system, including public budgets and financial regulations as well as the practices of market participants such as private banks, insurers, and investors. Promoting a green financial system should include both catalysing the development of products in capital markets that deliver climate policy objectives, as well as working with firms, regulators and institutions to mainstream climate change and build green finance ecosystems.

This section reviews how the six development finance institutions included in this study are promoting green finance. This is structured around (a) how the DFIs are catalysing the market for green financial products, notably green bonds, and (b) how the DFIs are supporting the development of green financial markets, while encouraging improved practices within markets.

Supporting the development of green financial markets is a broad task and can be approached in a variety of ways. It can be useful to conceptualise this work in terms of building green finance ecosystems, where partnering with key financial institutions is vital. DFIs can also assist public and private financial institutions with creating strategies, roadmaps, and action plans to drive a transition to a low-carbon and climate-resilient financial system. Improving understanding of the risks posed by climate change and the low-carbon transition – to markets as well as public finances – is another key area where DFIs can contribute. DFIs should use engagement with financial intermediaries and the private sector as an opportunity to promote positive change in the broader market, promoting awareness and disclosure of financial risks arising from high-carbon and climate-vulnerable infrastructure choices, and promoting a shift to lower-risk alternatives as a risk management strategy.

[353] **Paris Agreement** (2015)

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Asian Development Bank

Figure 70: An assessment of AsDB's promotion of green finance

Bank	Support for green financial products	Support for local and national institutions and green finance regulation
AsDB	AsDB has a green bond programme and offers support for green bonds in new markets.	AsDB has offered technical assistance to enhance access to finance but could be more clear on how else it has supported public institutions and regulators.

AsDB has led by example with a green bond programme that has raised USD 5 billion since it was launched[354] in 2015[355] and has thus far issued green bonds in over seven different currencies[356], including Hong Kong dollars and Swedish krona[357]. AsDB has also encouraged the green bond market by supporting Asian issuers. In 2019, for example, AsDB invested USD 20 million in the AC Energy Green Bond Project, which primarily invested in solar and wind in the Philippines, Indonesia and Vietnam[358][359]. AsDB has also been working closely with the ASEAN+3 on options to promote green bonds denominated in local currency[360].

In 2017, AsDB established a fund "to support the development and implementation of financial risk management products that can help unlock capital for climate investments and improve resilience to the impact of climate change" – the Asia-Pacific Climate Finance Fund (ACliFF)[361][362]. AsDB has also proposed the concept of the Green Finance Catalyzing Facility (GFCF) in order to catalyse a blend of financing and generate a pipeline of bankable green infrastructure projects, as well as providing project development and structuring support[363].

[354] AsDB (2018) **ADB Green Bonds Newsletter**

[355] See **https://www.adb.org/site/investors/adb-green-bonds**

[356] See https://www.adb.org/publications/adb-green-bonds

[357] See **https://www.adb.org/news/adb-sells-750-million-10-year-global-green-bond-support-climate-change-mitigation-adaptation**

[358] **https://www.adb.org/projects/53037-001/main#project-pds**

[359] **https://www.adb.org/results/investing-asia-s-maiden-green-bonds**

[360] **https://www.adb.org/publications/green-lcy-bonds-infrastructure-development-asean3**

[361] See **https://www.adb.org/site/funds/funds/asia-pacific-climate-finance-fund**

[362] See https://www.insuresilience.org/acliff/

[363] See https://www.adb.org/publications/green-finance-catalyzing-facility

AsDB has been mostly focused on mobilising the private sector, which is important for scaling finance. AsDB appears to work on increasing awareness amongst financial actors regarding green finance and climate risks through workshops[364], but it is unclear how this has strengthened networks on greening the financial system, or resulted in changes at system level.

Asian Infrastructure Investment Bank

Figure 71: An assessment of AIIB's promotion of green finance

Bank	Support for green financial products	Support for local and national institutions and green finance regulation
AIIB	Recently launched Sustainable Capital Markets Initiative, no green bond framework. Established the ESG Enhanced Credit Managed Portfolio	Some support is intended for actors across the market; "Capacity Building" is one of the four pillars of the Sustainable Capital Markets Initiative[365]

AIIB recently launched a Sustainable Capital Markets Initiative comprising four pillars.[366] The first, Proof of Concept, refers to demonstrating that ESG (Environmental, Social and Governance) investments can generate positive returns through developing a portfolio with a successful track record, which will later be opened to other investors. The third pillar, Transparency and Disclosure, aims to work with market stakeholders to promote better transparency and disclosure. The second pillar, ESG Research, and the fourth, Capacity Building, aim to contribute to learning and knowledge development in the market.

A positive recent step taken by AIIB towards greener finance is the launching of the ESG Enhanced Credit Managed Portfolio[367], which intends to catalyse ESG investment strategies in emerging Asia and build capacity amongst market participants. This portfolio will be comprised of corporate bonds, including quasi-sovereign bonds and green bonds where proceeds are directed to sustainable infrastructure[368]. AIIB is also set to partner with an asset manager to build

[364] ADB's staff. See https://www.adb.org/news/events/climate-change-nationally-determined-contributions-national-financial-institutions

[365] These are emerging initiatives so it is too early to determine their impact.

[366] AIIB (2019) **Sustainable Capital Markets Initiative**

[367] **https://www.aiib.org/en/projects/approved/2018/enhanced-credit-managed-portfolio.html**

[368] **https://www.aiib.org/en/news-events/news/2019/20190109_001.html**

capacity around responsible investing by "producing research on ESG investing based on knowledge gained from applying AIIB's ESG framework"[369].

One of the strategies of the bank is to mobilise private capital for infrastructure[370], and although it is stated that the mobilisation of this capital is determined by each sectoral strategy, there is no mention of the importance of shifting financial flows from brown to green. Nevertheless, the bank and the French asset manager Amundi announced, in September 2019, the Asia Climate Bond Portfolio (USD 500 million) which is targeting corporate bonds in emerging markets. The framework of the portfolio takes into consideration three variables: climate mitigation, resilience and the share of green business. The Portfolio will invest in both "labelled green bonds and unlabelled climate bonds"[371]. This is a laudable initiative, but it is too early to determine how the market will respond.

China Development Bank

Figure 72: An assessment of CDB's promotion of green finance

Bank	Support for green financial products	Support for local and national institutions and green finance regulation
CDB	The CDB green bond framework excludes coal. The first issuance was in 2017, and CDB has underwritten green bonds by other issuers.	CDB has an elaborate vision for building a green finance ecosystem and system of green financial services.

CDB has guidelines on green finance guided by the principle of 'beautiful China' – a China that coexists with nature[372] – and states that the Bank "spares no efforts to implement the strategy of building a green financial system and increase green finance supply"[373]. Under this aim, CDB is targeting three areas: promoting ecological civilisation, green development of industries and the sustainable development of the Bank itself[374]. At the international level, CDB aims to support and increase the extent of green practices and support sustainable economic, social and environmental development worldwide.

[369] **https://www.aiib.org/en/news-events/news/2019/20190109_001.html**

[370] AIIB (2018) **Strategy on Mobilizing Private Capital for Infrastructure**

[371] See **http://www.ipe.com/news/esg/amundi-teams-up-with-asian-infrastructure-bank-for-1bn-climate-bond-fund/**

[372] See **https://monitoring.bbc.co.uk/product/c1dmwn4r**

[373] CDB (2017) Sustainability Report

[374] CDB (2018) Sustainability report

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CDB's vision for green finance includes four systems: (1) a system of institutional guarantee for green finance which includes a steering committee to coordinate CDB's arrangements; (2) a system of green projects, with a focus on areas such as green industry, low-carbon and smart cities, environmental pollution treatment and ecological damage repair, green transport and green agriculture; (3) a system of green finance financial risk management, which incorporates environmental and social risk management into credit management, carries out environmental stress tests, and manages information disclosure in line with regulations and international practices; and (4) a system of green financial products, which includes the issuance of green bonds at national and international levels, and the development of credit products for energy conservation, green trade, energy efficiency and so on[375].

In terms of green bonds, in 2017 the Bank issued its first green bonds in euros and US dollars, to the value of CNY 11.1 billion[376]. The proceeds for the issuance were mostly to be used in domestic projects, which is not surprising given CDB's mandate. CDB was amongst the pioneers in excluding coal from its green bond framework in the country[377] – and China recently announced that clean coal technology will also be excluded by China's green bond guidelines[378].

CDB's green bond framework states that the Bank "has green credit management rules which provide transparency on project due diligence, credit approval and post-lending review following the best practices of the Green Credit Guidelines by the China Insurance and Banking Regulatory Committee"[379]. However, the lack of publicly available information undermines the ability for clients and researchers to understand the policies of CDB and how they are supporting green finance through their operations.

In 2019, CDB became a signatory, along with other major financial institutions, of the Green Investment Principles on the Belt and Road[380]. Although the principles are not comprehensive, at the First Annual Plenary the various institutions agreed to collaborate to further develop the process of implementing the

[375] CDB (2018) Sustainability report

[376] See **https://www.climatebonds.net/files/files/China%20Development%20Bank%20Annual%20Report%20.pdf**

[377] See **https://www.climatebonds.net/files/files/China%20Development%20Bank%20Annual%20Report%20.pdf**

[378] See **http://ieefa.org/china-disqualifies-clean-coal-technology-from-green-bond-funding/**

[379] See **https://www.climatebonds.net/files/files/China%20Development%20Bank%20Green%20Bond%20Framework.pdf**

[380] City of London Corporation's Green Finance Initiative (GFI) and China's Green Finance Committee (GFC) Green Investment Principles for the Belt and Road

principles. This is an opportunity for CDB to learn from other financial institutions and international best practices, in particular with respect to avoiding financial risks from high-carbon or climate-vulnerable infrastructure.

Japan International Cooperation Agency

Figure 73: An assessment of JICA's promotion of green finance

Bank	Support for green financial products	Support for local and national institutions and green finance regulation
JICA	JICA does not issue green bonds, per se, however it does issue social or SDG-aligned bonds.	JICA is part of the Green Finance Network in Japan, no information on engagement outside Japan

JICA does not issue green bonds. Instead, according to Akihito Nagata, Director of capital markets in the treasury department of JICA, the bonds issued by JICA are recognised as Socially Responsible Investment (SRI), a quality that JICA always makes clear to its investors[381] [382]. However, it is likely that some of JICA's SDG-aligned bonds could be certifiable as green or climate bonds.[383]

In 2018, JICA became the first entity to have its issuances listed on the TOKYO PRO-BOND Market – a dedicated platform for green and social bonds launched in January 2018. JICA is also member of the newly-launched Green Finance Network in Japan[384].

There is no public information on JICA's engagement on green finance issues outside of Japan.

Internationally, JICA works with the Japan Exchange Group, building technical cooperation to foster bond markets in developing regions[385]. This work is welcomed, but it is unclear how this includes green bonds and fosters a finance shift in those regions toward greener activities.

[381] See **https://www.env.go.jp/en/policy/economy/gb/guidelines.html**

[382] See **https://www.jica.go.jp/english/ir/financial/c8h0vm0000aypxs7-att/articles_1409.pdf**

[383] JICA (2018) **JICA Bond – Impact Report**

[384] See **https://www.climatebonds.net/2018/11/tokyo-launch-green-finance-network-japan-new-high-level-green-initiative**

[385] See **https://www.climatebonds.net/2018/11/tokyo-launch-green-finance-network-japan-new-high-level-green-initiative**

JICA should both internally adopt and externally promote the disclosure of climate-related financial risks according to TCFD recommendations, along with risk management strategies including shifting from high-carbon or climate-vulnerable activities to less risky options. JICA should engage with the TCFD study group recently established by Japan's Ministry of Economy, Trade and Industry (METI)[386], and the consortium of Japanese companies supporting TCFD. Such engagements could further JICA's understanding of its own climate-related financial risks, as well as improve its sense of how to promote disclosures in developing-country markets.

Korea Development Bank

Figure 74: An assessment of KDB's promotion of green finance

Bank	Support for green financial products	Support for local and national institutions and green finance regulation
KDB	KDB issued its first green bond in 2017 and has developed a KDB green bonds framework.	KDB claims to support developing countries but there are no examples on its website.

The Korea Development Bank issued its first bond in 2017 for USD 300 million (Singapore registered) in line with the Equator Principles, and then in May 2018 listed a green bond for KRW 300 billion on the Korean Stock Exchange[387]. The green bond issuance is aligned with the green financing programme of the Bank[388], of which one of the four aims is to provide knowledge management and analysis of green industry markets in developed and developing countries.

Nevertheless, this policy is insufficient to demonstrate that KDB has been proactively engaging with their clients to support them on the promotion of green finance. There is a lack of publicly available information on actions in this area on the KDB website.

Furthermore, KDB has yet to endorse the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD)[389]. The Bank should evaluate what its climate risks would be according to TCFD

[386] See **https://www.meti.go.jp/english/press/2018/0723_002.html**

[387] See **https://www.adb.org/sites/default/files/publication/469261/adbi-wp897.pdf**

[388] See **https://www.icmagroup.org/Emails/icma-vcards/KDB_External%20Review%20Report.pdf**

[389] IEEFA (2018). **Korea's Clean Energy Challenge**

guidelines[390] and use the TCFD-aligned disclosures to enhance its risk management approach, including via avoidance of high-carbon and climate-vulnerable activities.[391]

KDB has recently been accredited[392] to receive funds from the Green Climate Fund but has not yet submitted any projects for funding[393]. This is however a step in the right direction for integrating climate into KDB's operations.

World Bank Group

Figure 75: An assessment of WBG's promotion of green finance

Bank	Supporting green financial products	Support local and national institutions and green finance regulation
WBG	Has pioneered green bonds in multiple markets, including in South East Asia	WBG supports countries through the Sustainable Banking Network, Climate Action Peer Exchange for Finance Ministries (CAPE), Coalition of Ministers of Finance and its financial intermediary policy – the latter hasn't been approved yet.

The WBG has been active in promoting green financial systems and increasing awareness of green finance and climate change through the Climate Action Peer Exchange for Finance Ministries (CAPE)[394]. More recently, the newly formed Coalition of Finance Ministers for Climate Action endorsed a set of six common principles, known as the "Helsinki Principles", which promote national climate action through fiscal policy and the use of public finance. The coalition is working towards the Santiago Action Plan, and an overview was published at the annual World Bank meetings[395][396] Moreover, IFC hosts the Sustainable Banking Network (SBN) – a voluntary network where financial regulators and banking associations from emerging markets are committed to advancing sustainability within their financial sectors, in line with international good practice. IFC and the Sustainable

[390] IEEFA (2018). **Korea's Clean Energy Challenge**

[391] See **http://ieefa.org/ieefa-asia-south-korea-is-behind-the-curve-on-power-generation-policy/**

[392] GCF (2019) **Korea Development Bank**

[393] Information provided to E3G by current and former KDB staff.

[394] See https://www.cape4financeministry.org/about

[395] **Overview of the Santiago Action Plan (2019).**

[396] See **https://www.worldbank.org/en/news/press-release/2019/04/13/coalition-of-finance-ministers-for-climate-action**

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Banking Network are observers to the Network for Greening the Financial System (NGFS).[397]

WBG has been a pioneer in the issuance of green bonds and supporting the launch of sovereign green bonds in developing economies such as Fiji[398]. In 2018, IFC issued green bonds in the Philippines, the first green bond denominated in Philippine pesos to be issued by a multilateral development institution[399]. The same year, IFC also issued its inaugural Indonesian Rupiah Komodo green bond – the first Rupiah-denominated issuance by a multilateral development bank[400]. It has also supported the development of environmental credit lines by working closely with state-owned banks[401]. Moreover, through the Cornerstone Green Fund, IFC has bought bonds issued by banks in developing economies. Also, IFC with HSBC launched this year the First Green Bond Fund focused on "real economy" issuers in emerging markets – called Real Economy Green Investment Opportunity (REGIO); this is targeted to non-financial borrowers, which are considered an untapped market[402]. In 2019, the World Bank issued a ten-year Sustainable Development Bond, raising EUR 1.5 billion from institutional investors[403].

Furthermore, in October 2018 IFC's CEO announced changes to its financial intermediary policy, whereby it eliminated its general-purpose loans and replaced them with a more stringent and adequate policy on which the Corporation's lending to financial intermediaries is ringfenced to prevent on-lending to coal-related investments[404]. A draft proposal for a new approach for greening financial institutions is being phased in for new equity and equity-like investments into such institutions by July 2019[405]. This is aiming to support

[397] **https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/sustainable-finance/sbn_members**

[398] See **http://www.worldbank.org/en/news/press-release/2017/10/17/fiji-issues-first-developing-country-green-bond-raising-50-million-for-climate-resilience**

[399] See **https://ifcextapps.ifc.org/IFCExt/Pressroom/IFCPressRoom.nsf/0/166E58526DB2E5B3852582B7000BB9DA**

[400] **https://ifcextapps.ifc.org/ifcext/pressroom/ifcpressroom.nsf/0/9535E07E77A4766C85258320000772D7?OpenDocument**

[401] See **https://www.oecd.org/env/outreach/Binder_final%20report_environmental%20lending_update%20Oct2014.pdf**

[402] See https://ifcextapps.ifc.org/IFCExt/Pressroom/IFCPressRoom.nsf/0/14FEF5C7A7CACFCF8525840F002CA127

[403] See https://sdg.iisd.org/news/world-bank-launches-10-year-sdg-bond/

[404] See **https://www.devex.com/news/opinion-a-new-ifc-vision-for-greening-banks-in-emerging-markets-93599**

[405] WBG's staff

financial intermediaries to increase their climate-related lending whilst reducing exposure to coal to zero, or near zero, by 2030[406].

Since 2018 IFC's annual report discloses the institution's climate-related risks following the TCFD's guidelines[407]. In Asia, IFC signed an MOU with Monetary Authority of Singapore (MAS) with the aim to encourage the issuance of green bonds by financial institutions in the region, whilst promoting the use of better practices and standards at the global level[408].

[406] WBG's staff

[407] See **https://www.worldbank.org/en/news/speech/2018/10/11/closing-remarks-at-flagship-event-scaling-up-green-finance-the-new-role-of-regulators-and-central-banks**

[408] See **https://blogs.worldbank.org/eastasiapacific/catalyst-green-financing-indonesia**

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CHAPTER 7
TECHNICAL ASSISTANCE FOR IMPLEMENTING PARIS GOALS

Figure 76: An assessment of the banks' technical assistance for implementing Paris goals

Bank	Technical assistance for implementing Paris goals
AIIB	N/A – AIIB has not prioritised technical assistance, but there is recognition of the role in the energy sector.
ADB	Some progress – ADB is working to support implementation of Paris goals through the Nationally Determined Contributions (NDC) Advance Platform. However, it is also providing technical assistance in support of fossil fuels.
CDB	N/A – Almost no information could be located on CDB technical assistance.
JICA	Some progress – JICA does extensive climate-related technical cooperation but also technical cooperation for power-sector development plans which lock in fossil fuel technologies.
KDB	N/A – Almost no information could be located on KDB technical assistance.
WBG	Some progress – WBG is doing potentially transformational work, including in terms of NDC ambition enhancement. However, it is also providing technical assistance in support of fossil fuels, including upstream oil and gas sector and coal.

***Sources**: E3G Assessment*

Figure 77: Definitions for technical assistance for implementing Paris goals

Assessment	***Not aligned***	***Some progress***	***Paris-Aligned***	***Transformational***
Technical assistance for implementing Paris goals	No evidence of technical assistance to help implement Paris Agreement goals, or evidence of technical assistance misaligned with Paris goals	Limited standalone technical assistance on Paris goals or climate-related matters, or technical assistance not fully aligned with Paris goals	Evidence of technical assistance programmes to implement existing NDCs	Programme to help implement Paris goals and raise ambition of NDCs, consistent with 1.5°C. Supporting countries with ambitious regulatory and market reforms

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Summary

Technical assistance from DFIs can play a catalytic role in enabling the implementation and enhancement of nationally determined contributions (NDCs), as both NDC implementation and enhancement currently face large uncertainties. DFIs that have less of a focus on technical assistance in general should do more to work with existing DFI-supported NDC initiatives, such as the NDC Partnership and the NDC Advance Platform. DFIs with deep commitments to technical assistance, however, must ensure that climate is adequately mainstreamed into their technical support. In other words, technical support must be informed by the latest developments in markets, technology, science and policy. DFIs with dedicated technical assistance programmes for NDC implementation and enhancement should evaluate lessons learned and identify further ways of bridging policy ambition gaps in both mitigation and adaptation. This is particularly important ahead of the global stocktake in 2023 and future NDC revision cycles under the Paris Agreement.

Recommendations

> ADB should consider expanding its NDC Advance platform and using it to provide further analysis to support more ambitious commitments within country NDCs. This is particularly relevant moving toward moments in the NDC revision cycle.

> AIIB should seek to engage further in policy-based technical assistance to unlock the infrastructure pipeline for mitigation and adaptation, partnering with others such as the World Bank's NDC Partnership or ADB's NDC Advance Platform.

> CDB should disclose more information on its technical assistance in the field of sustainable infrastructure and how it is aligned or being aligned with the Paris Agreement.

> JICA should review its technical cooperation guidelines to ensure that power sector planning assistance is aligned with the Paris Agreement and utilises full potential for renewable energy, efficiency, storage, and other climate-neutral technologies.

> WBG should expand its climate-related technical assistance to partner with more DFIs with less developed capacities.

> WBG, ADB and JICA should phase out technical assistance in support of fossil fuel expansion.

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Background

This section examines the provision of technical assistance[409] to countries in translating their nationally determined contributions (NDCs) under the Paris Agreement into plans for implementation and investment, as well as technical support for enhancing existing NDCs. It also covers other climate-relevant technical assistance. Existing commitments in NDCs will not deliver the goals of the Paris Agreement. Globally, as of December 2018, unconditional pledges and targets made by governments are estimated to result in median warming of 3.0°C, while conditional pledges and targets result in median warming of 2.6°C.[410] Moreover, in addition to the emissions gap, there is also a major adaptation gap; according to UN Environment, there is significantly less finance available for adaptation than is required for the NDCs, which is itself a much smaller figure than the full cost of adaptation globally.[411] These gaps demonstrate the need for a step change in ambition worldwide.

Proper technical assistance can help raise ambition by improving understandings of what is possible. For example, in terms of mitigation, analysis by the International Renewable Energy Agency (IRENA) demonstrates that, globally, the targets set in NDCs tend to significantly underestimate future renewable energy growth, often failing to reflect actual trends and market developments over the past decade.[412] This disconnect between policies and energy opportunities, IRENA notes, represents untapped potential to bridge the gap between existing policy and the goals of the Paris Agreement. Focusing on South and Southeast Asia in particular, another analysis supported by ADB and UN Environment shows that a transition to 100% decarbonised electricity generation in those regions is increasingly affordable, possible by 2050, and would have various co-benefits for sustainable development.[413] This is an example of how technical support can help to raise awareness about the increasing feasibility of and new opportunities in low-carbon energy technologies (such as solar energy, wind energy and energy storage)—thereby enabling more ambitious NDC targets.

While the exact role played by different DFIs may vary according to their respective capacities, there is a general need to improve understandings of the

[409] Technical assistance is defined as non-financial assistance provided by local or international specialists. It can take the form of sharing information and expertise, instruction, skills training, transmission of working knowledge and consulting services and may also involve the transfer of technical data. It involves spending on consultants, training and research. From **UNESCO Technical assistance in cultural governance** and **Action Aid What is technical assistance?**.

[410] See **Climate Action Tracker website**.

[411] UNEP (2018) **Adaptation Gap Report**

[412] IRENA (2017) **Untapped potential for climate action: Renewable energy in Nationally Determined Contributions**

[413] Climate Analytics (2019) **Decarbonising South and South East Asia**

low-carbon transition, climate resilience, and the options available for achieving both. In supporting the creation of national long-term strategies on climate change, DFIs should ensure that their assistance is informed by the latest developments in science, technologies, policy, and markets. More generally, in assisting with national planning efforts, DFIs have a responsibility to ensure that climate change concerns are properly mainstreamed, especially in sectoral and infrastructure planning where overlooking climate-related transition and physical risks could result in significant financial costs to the country. For instance, technical assistance with energy planning that overlooks new demand-side opportunities (e.g. in efficiency, storage, smart grids and demand response) may lock countries into pursuing costlier approaches. Taking a systems approach to evaluating all options would be more cost-effective. Also, not evaluating and integrating resilience-enhancing measures in infrastructure will raise costs over the long-term.

In the joint MDB commitment to aligning with the Paris Agreement announced at COP24, engagement and policy development support was named as one of the key areas for alignment. In this area, the MDBs committed to:

> *build on existing efforts to support the NDCs' revision cycle and develop services for countries and other clients to put in place long-term strategies and accelerate the transition to low-emissions and climate-resilient development pathways.*

> *ensure consistency with the SDGs and establish collaborative partnerships with other institutions and private sector actors while scaling-up outreach and knowledge-sharing initiatives.*

The institutions issuing this announcement included the World Bank Group, the Asian Development Bank and the Asian Infrastructure Investment Bank. The IDFC also listed engagement and policy development support as part of its approach to alignment with the Paris Agreement[414].

[414] IDFC (2018) **Position paper: Aligning with the Paris Agreement**

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Fossil fuel subsidy reform

Development banks should use their technical assistance to promote fossil fuel subsidy reform (FFSR). This is a core part of implementing the Paris Agreement, notably Article 2.1c.

An International Monetary Fund (IMF) study published in 2019 estimated that global fossil fuel subsidies in 2017 amounted to USD 296 billion in pre-tax subsidies, totalling USD 5.2 trillion in post-tax subsidies.[415] These subsidies act as 'negative carbon prices', an incentive acting in the opposite direction to carbon prices. The IMF study concluded that efficient fossil fuel pricing in 2015 would have lowered global carbon emissions 28%. Fossil fuel subsidy reform would also bring sustainable development benefits to countries beyond addressing climate change. Efficient pricing in 2015, the IMF estimated, would have reduced fossil fuel air pollution deaths 46% and increased government revenues by 3.8% of GDP.

While estimates on the impact of subsidy reform vary, research has found that pre-tax subsidy removal in many oil and gas exporting regions would lead to bigger CO_2 emission reductions than promised by Paris Agreement pledges.[416] A broader reform of post-tax subsidies for efficient pricing of fossil fuels would have an even greater impact. Despite this, only around 13 NDCs included fossil fuel subsidy reform. Supporting FFSR (including as part of NDCs and just transition strategies) and getting incentives right is thus part of the market and regulatory reform needed to have a 'transformational' impact in implementing the Paris Agreement.

[415] IMF (2019) **Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates**

[416] IIASA (2019) **Limited emission reductions from fuel subsidy removal except in energy exporting regions**

Asian Development Bank

Figure 78: An assessment of ADB's technical assistance for implementing Paris goals

Bank	Climate-related technical assistance at policy-level	NDC ambition increase goal?	Non-NDC technical assistance
Asian Development Bank	Yes – ADB has the NDC Advance Platform	Stated intention of increasing ambition	ADB technical assistance also supports fossil fuel development

The Asian Development Bank has a running program for supporting NDCs. Under its Climate Change Operational Plan 2017–2030, ADB envisioned a "substantial role … in supporting both NDC quality and early implementation." Indeed, the ADB's NDC Advance Platform, launched in 2018 at COP24, seeks to help support the NDCs of ADB's recipient countries. It has a total budget of USD 4.5million and ADB is seeking to pilot it in a small number of countries in a first phase. Its aims are to help developing member countries translate NDCs into viable, bankable and actionable investment plans, develop innovative financing mechanisms to develop these plans and create monitoring, reporting and verification (MRV) frameworks for NDCs.

ADB has already begun to reflect NDCs in country dialogue and country partnership strategies and has published an assessment of how member country NDC priorities map across ADB's operations.[417] Furthermore, it has done preliminary analysis on pathways for the low-carbon transition in Viet Nam[418] and the Philippines[419]. Based on the new Climate Change Operational Framework, the NDC platform will also offer support to countries in designing deep decarbonisation pathways. ADB has several examples of technical support for energy subsidy reform, including providing advice for policymakers in Thailand's reform strategies[420] as well as in Indonesia[421]. ADB has also done analysis on fossil fuel subsidy reform in several countries, demonstrating that the money freed up by subsidy reform could be used to compensate poor households and promote sustainable energy.[422]

ADB (2016) **Assessing the Intended Nationally Determined Contributions of ASDB Developing Members**

ADB (2017). **Pathways to Low Carbon Development for Viet Nam**

ADB (2017). **Pathways to Low Carbon Development for the Philippines**

ADB (2015) **Fossil Fuel Subsidies in Thailand: Trends, Impacts, and Reforms**

ADB (2015) **Fossil Fuel Subsidies in Indonesia: Trends, Impacts, and Reforms**

ADB (2016) **Fossil Fuel Subsidies in Asia: Trends, Impacts, and Reforms - Integrative Report**

Despite the above, however, some of ADB's technical assistance has run counter to global climate goals by encouraging investment in fossil fuel expansion, upstream as well as downstream. One notable example is a programme on "Sustainable and Inclusive Energy" in Indonesia, which includes technical assistance on renewables and energy efficiency. However, this programme also promotes domestic gas exploration and production as well as increased domestic delivery of gas, with the aim of growing investment in oil and gas in Indonesia.[423] As noted elsewhere, natural gas cannot credibly be considered low-carbon unless there is no viable climate-neutral technology alternative across the energy system, which is increasingly harder to demonstrate. Given that its expanded use endangers the Paris Agreement goals[424], natural gas should not receive support from public institutions, which should focus their technical assistance on climate-neutral energy alternatives.

Asian Infrastructure Investment Bank

Figure 79: An assessment of AIIB's technical assistance for implementing Paris goals

Bank	Climate-related technical assistance at policy-level	NDC ambition increase goal?	Non-NDC technical assistance
Asian Infrastructure Investment Bank	N/A	N/A	Recognition of role of technical assistance in energy sector

As an institution, AIIB is focused on infrastructure finance, and as a result has placed less of an emphasis on technical assistance at policy level, country engagement and NDC support activities[425]. With only 200 members of staff, AIIB has been constrained in the technical assistance that it can provide and has instead focused on the project level where AIIB provides environmental technical assistance as part of project due diligence and makes grants available for technical feasibility studies.

However, given the pressing need for country-level policy reforms to deliver both the Paris Agreement and the sustainable infrastructure agenda, the AIIB has recognised that there is a role for more policy-oriented technical assistance as

[ADB] (2018) **Republic of Indonesia: Sustainable and Inclusive Energy Program**

[424] Tong et al. (2019) **Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target**

[425] Nikkei (2017) **AIIB will stay 'lean', says vice president**

part of its sectoral analysis, specifically for its Energy Sector Strategy.[426] As a lesson learned, AIIB concluded that "addressing institutional issues requires extensive policy analysis and dialogue, and the ability to provide technical assistance, often on concessional terms."[427]

Based on this lesson, it will be interesting to see if AIIB offers more policy-focused technical assistance across energy and other sectors in the coming months and years, in order to meet mitigation and adaptation infrastructure needs. AIIB should work closely with the Multilateral Center on Development Finance in China in order to help provide technical assistance for country policies that enhance NDCs or build the project pipeline for zero-carbon and resilience-enhancing infrastructure.

China Development Bank

Figure 80: An assessment of CDB's technical assistance for implementing Paris goals

Bank	Climate-related technical assistance at policy-level	NDC ambition increase goal?	Non-NDC technical assistance
China Development Bank	N/A	N/A	N/A

Almost no information is publicly available on CDB's use of technical assistance in the context of climate change. It has however been documented that CDB uses technical assistance in the field of sustainable infrastructure[428], but little information is available as regards the nature and scope of this assistance.

[426] AIIB (2017) **Energy Sector Strategy**

[427] Ibid.

[428] Boston University Global Economic Governance Initiative (2016) **The sustainable infrastructure finance of China Development Bank: composition, experience and policy implications**

Japan International Cooperation Agency

Figure 81: An assessment of JICA's technical assistance for implementing Paris goals

Bank	Climate-related technical assistance at policy-level	NDC ambition increase goal?	Non-NDC technical assistance
Japan International Cooperation Agency	JICA engages in supporting climate policy and institutional development as a priority area	N/A	Evidence of technical assistance that is misaligned with Paris goals

Supporting climate policy and institutional development is one of JICA's four priority areas for climate change cooperation. Indeed, according to JICA, of the 90 climate projects undertaken in 2017, 46, or just over half, were technical cooperation projects. This relative prominence of technical cooperation also holds true for JICA's broader portfolio. As part of JICA's operational model, technical cooperation represents an especially large proportion of JICA's activities; in 2017, technical cooperation represented over 25% of JICA's overall ODA spending.[429]

In particular, JICA's technical cooperation in Indonesia and Viet Nam was implemented via a Climate Change Programme Loan. This helps a country develop policies related to mitigating and adapting climate change through a 'policy matrix'.

However, JICA's commitment to technical cooperation brings challenges as well as opportunities. As noted earlier, climate change considerations (including risks posed by developments in markets and technology) should be mainstreamed into general technical assistance, irrespective of whether the project is or is not designated a climate change project—otherwise, this may lead to the creation of policies that are unnecessarily misaligned with the Paris Agreement or which understate the financial risks of fossil-based assets.

For example, JICA funds technical cooperation projects to conduct assessments of power sector development plans for recipient countries.[430] In Myanmar, JICA worked with the government to identify an "optimal" power sector development plan in which the share of coal in the mix expands from 3.3% in 2013 to 33.6% in

[429] JICA (2018) **Japan's ODA by Type 2017 (Provisional Figure)**

[430] JICA (2019) **JICA's Support in African Energy Development**

2030,[431] while combined renewable energies grow to only 8.5%. JICA's power sector development planning work in Bangladesh[432] and Sri Lanka[433] likewise merits querying in light of the increasingly bleak outlook for coal[434] and renewable energy being often a cheaper source of bulk generation[435].

Although this is not in Asia, it should be noted that in Mozambique, the initial JICA-funded power sector development plan[436] report recommended a limit on solar PV and wind to only 10–20% of demand, and recommended that coal and gas should form part of the "primary development plan". JICA's report was then used as a basis for the country's official power sector development plan[437].

JICA documents suggest that it has provided energy sector technical cooperation to at least nine countries where it has advocated natural gas power generation under the rationale of providing baseload energy,[438] despite baseload being a demand characteristic and not a supply technology characteristic.[439]

[431] JICA (2015) **Data Collection Survey on Final Report Capacity Development of Power Sector Development Planning**

[432] Government of the People's Republic of Bangladesh (2016) **Power System Master Plan 2016 Summary**

[433] JICA (2018) **Project on Electricity Sector Master Plan Study in Democratic Socialist Republic of Sri Lanka**

[434] **Carbon Tracker (2018) 42 percent of world coal plants run at a loss**

[435] Wind and solar are the cheapest sources of new bulk power generation in most countries worldwide—and these combined with batteries will be able to play a grid-balancing role: **Bloomberg New Energy Finance (2019) Battery power's latest plunge in costs threatens coal and gas**

[436] JICA (2018) **Integrated Master Plan Mozambique Power System Development Final Report**

[437] Electricidade de Mozambique (2018) **Integrated Master Plan Mozambique Power System Development 2018-2043**

[438] **JICA (2019) JICA support in African Energy Development**

[439] IRENA (2015) **From baseload to peak: Renewables provide a reliable solution**

Korea Development Bank

Figure 82: An assessment of KDB's technical assistance for implementing Paris goals

Bank	Climate-related technical assistance at policy-level	NDC ambition increase goal?	Non-NDC technical assistance
Korea Development Bank	N/A	N/A	N/A

Almost no information could be located regarding the Korea Development Bank on its use of technical assistance in the context of climate change. As a general rule, KDB does not provide technical assistance and operates only as a commercial or financial institution[440]. There is however some research that suggests it has, more recently, occasionally played a role as "consultant" and provided similar professional services[441]. More information is required as to whether this is in climate-related areas or not.

World Bank Group

Figure 83: An assessment of WBG's technical assistance for implementing Paris goals

Bank	Climate-related technical assistance at policy-level	NDC ambition increase goal?	Non-NDC technical assistance
World Bank Group	Support for translating NDCs into investment plans, NDC Partnership and NDC Support Facility Trust Fund	Support for more ambitious NDCs (on demand from client countries)	Technical assistance for "climate-smart" investments and fossil fuel subsidy reform, but there remains technical assistance for fossil fuels.

With its Climate Change Action Plan, the World Bank Group has a framework for addressing climate change which identifies supporting transformational policies and strengthening institutions as its first priority[442]. Within this, WBG has committed to supporting countries with development and sectoral planning and helping to ensure the "climate-smart quality" of all public investments, as well as

[440] Information provided to E3G by current and former KDB staff.

[441] Musacchio et al (2017) **The role and impact of development banks**

[442] World Bank Group (2016). **Climate Change Action Plan**

mainstreaming climate into budgets and fiscal frameworks. WBG has also committed to working on getting prices right, including carbon pricing, as well as fossil fuel subsidy reform (FFSR).

WBG has committed to translating NDCs into policies and investment plans, and supporting – on demand – the design of more ambitious NDCs. As a concrete initiative toward the above, WBG manages the NDC Support Facility Trust Fund, a multi-donor trust fund created and designed to facilitate the implementation of NDCs.[443] In addition, WBG houses other trust funds which are also relevant to NDCs such as the Partnership for Market Readiness (PMR), the Transformative Carbon Asset Facility (TCAF), and the Carbon Partnership Facility (CPF), among others[444].

The NDC Support Facility Trust supports the NDC Partnership, an international initiative to support action on the NDCs which is backed by various MDBs, including ADB as well as WBG, and many country participants.[445] In a positive recent development, the Climate Action Enhancement Package is a new offering of the NDC Partnership which places emphasis on enhancing NDC ambition as well as implementation.

As another contribution toward the NDC Partnership, WBG also promotes technical assistance via the Climate Action Peer Exchange (CAPE) for Ministries of Finance.[446] Launched at COP22, CAPE is a knowledge exchange platform which brings together finance ministers and their staff alongside other experts. In 2019, CAPE supported the establishment of the "Coalition of Finance Ministers for Climate Action" [447] in support of six Helsinki Principles[448]; later in the year, an action plan was developed for their operationalisation.[449]

With the Systematic Country Diagnostic (SCDs), the WBG focuses on macro challenges for countries, including in relation to climate change and development. This then informs the Country Partnership Framework (CPF), which identifies strategic areas where the WBG could provide support and

[443] World Bank (2019) **NDC Support Facility**

[444] PMR **The NDC Partnership**

[445] See website of the **NDC Partnership**.

[446] See website of the **CAPE initiative**.

[447] World Bank (2019) **CFMCA**

[448] Coalition of Finance Ministers for Climate Action (2019) **Helsinki Principles**

[449] See website of the **CAPE initiative**.

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proposes possible interventions[450]. Consistent with its objectives under its climate change action plan, WBG has also provided a range of support to numerous countries on fossil fuel subsidy reform including through the Energy Sector Management Assistance Program (ESMAP), including Viet Nam and Myanmar[451]. Among the MDBs, the WBG is the only MDB to have signed onto support for the Friends of Fossil Fuel Subsidy Reform Communique[452].

Despite this, however, the WBG's work on areas such as fossil fuel subsidy reform is contradicted by WBG technical assistance that supports fossil fuel expansion. In recent years, the WBG has approved numerous policy-based operations relating to oil, gas, and coal. Indeed, the World Bank commitment to cease investments in upstream oil and gas does not apply to its technical assistance.[453] In one example in Mozambique, a WBG Mining and Gas Technical Assistance Project (MAGTAP) is intended to expand LNG production and support new investments in mining, including coal.[454] These activities may make the local economy vulnerable to stranded assets and transition risks with the shift to a low-carbon economy.

[450] World Bank (2019) **Country strategies webpage**

[451] World Bank (2017) **Reforming fossil fuels**

[452] See **FFSR website communique**.

[453] World Bank (2017) **Q&A on Upstream Oil and Gas**

[454] World Bank (2019) **Mining gas and technical assistance**

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CHAPTER 8
TRANSPARENCY OF CLIMATE FINANCE DATA

Figure 84: Transparency assessment

Assessment	*Not aligned*	*Some progress*	*Paris-aligned*	*Transformational*
Transparency of climate finance data	Lack of transparency on any climate-related projects	Limited transparency and disclosure. Project level information available	Full project level information available including detailed descriptions. All sub-projects of financial intermediaries are disclosed	Institutions begin reporting to a joint MDB-IDFC project-level database using the same reporting format as OECD

Figure 85: An assessment of the banks' transparency of climate finance data

Bank	Transparency of climate finance data
AIIB	Some progress - AIIB displays reasonable disclosure of climate finance data, but little transparency of FI sub-projects.
ADB	Some progress - ADB makes good disclosure of its climate finance data, but there is little transparency around its FI sub-projects.
CDB	Not aligned - CDB has no project-level information available and makes no disclosure of FI sub-projects.
IBRD/IDA	Some progress - There is reasonable disclosure of climate finance data, and some transparency of FI sub-projects.
IFC	Some progress - IFC offers reduced detail in climate finance data, and some transparency of FI sub-projects
JICA	Some progress - JICA makes reasonable disclosure of climate finance data, and some transparency of FI sub-projects.
KDB	Not aligned - There is no project-level information available and no disclosure of FI sub-projects.

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Summary

The transparency of climate finance information and project data is important for the accountability of institutions that support the transition to a low carbon society. Analysis of project-level data can help produce a common understanding of the effectiveness of an institution's investment. This chapter will focus primarily on the transparency of climate finance data reported by institutions, based upon the OECD's climate-related development finance[455]. We will look at transparency on project-level information, portfolio-level information and transparency around financial intermediary sub-projects. Based on the analysis CDB and KDB were found to have not aligned with the Paris Agreement, and the other institutions were found to have made some progress. The Asian Development Bank is the only bank analysed that performs relatively well on some measures of climate finance data transparency.

Recommendations

> All banks should report the same level of detail to the OECD, IDFC and other similar databases.

> CDB and KBD should publish project-level information and data.

> All banks should publish more information on financial intermediary sub-projects. The institutions should collaborate on principles for doing so, similar to the MDBs-IDFC Common Principles agreed in 2015[456] for tracking climate finance.

> MDBs and IDFC should publish a joint database of project-level information. This would be a transformational step because it would allow comparison of multilateral and bilateral development finance institutions.

Background

Providing climate finance through financial intermediaries is increasing in some DFIs[457]. Due to this, analysis on the transparency of sub-projects undertaken by financial intermediaries using investment from development institutions will be provided. Some DFIs have undertaken reviews of their financial intermediary lending to better understand the sub-projects being funded and highlight areas for improvement[458].

[455] OECD (2018) **OECD DAC External Development Finance Statistics**

[456] EIB (2015) **Common Principles for Climate Mitigation Finance Tracking**

[457] Emerging Markets Dialogue (2018) **Sustainable energy finance through financial institutions**

[458] IDB (2016) **Evaluation of IDB Group's Work through Financial Intermediaries**

The transparency of projects beyond specific climate projects is also important to consider. Broader transparency indexes exist, such as the Aid Transparency Index[459], which provides comparison between institutions. CDB, KDB and AIIB are not included in this index. JICA is ranked as 'poor', IFC ranks as 'fair' and the IDA and ADB both rank as 'very good'. ADB is the best performer of the 45 institutions included in the index. The International Aid Transparency Initiative provides information on the level of data JICA, ADB and WBG provide[460].

Climate finance data transparency

Figure 86: Summary of institutional climate finance data transparency

Bank	Climate finance data transparency
AIIB	Some progress - Does not provide any information in long description field of the OECD database
ADB	Paris aligned - Provides good level of project description
CDB	Not aligned - Only reports mitigation and adaptation totals to IDFC[461]
IBRD/IDA	Some progress - Does not provide any information in long description field of the OECD database
IFC	Not aligned - Has not provided any information in the short description field of the OECD database for 2016 and 2017
JICA	Some progress - Provides little detail in the long description field and includes overlap financing in OECD database
KDB	Not aligned - Only reports mitigation and adaptation totals to IDFC[462]

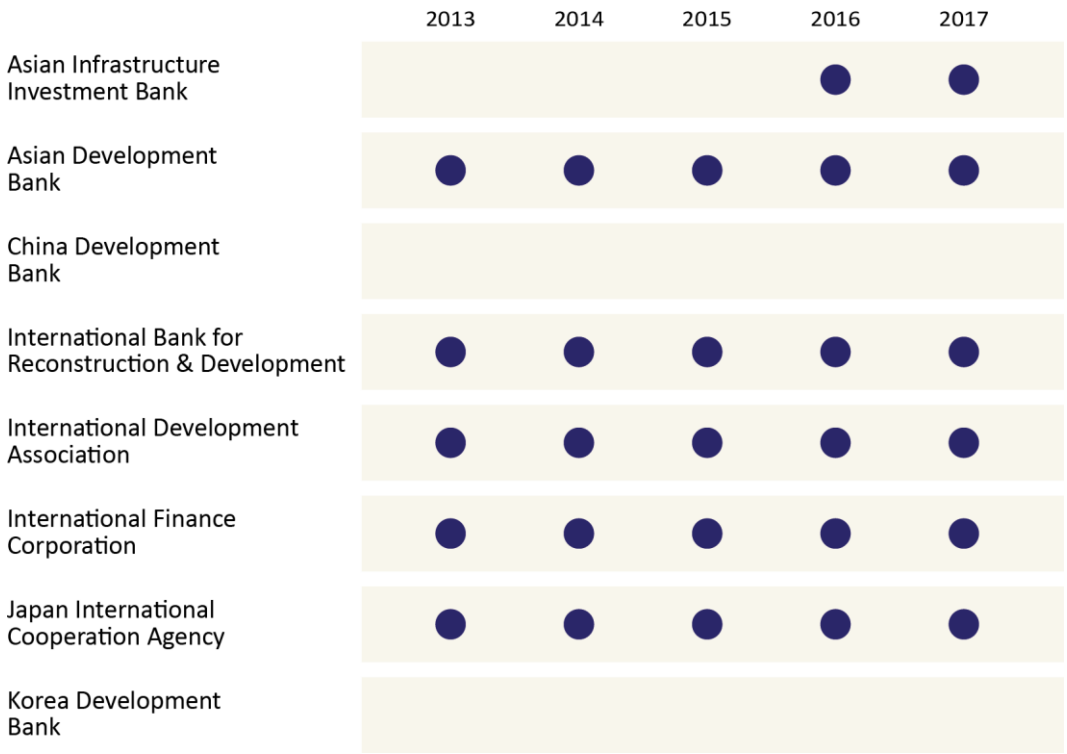
[459] Publish what you fund (2018) **2018 Aid Transparency Index**

[460] International Aid Transparency Initiative (2019) **Publishers**

[461] IDFC (2018) **IDFC Green Finance Mapping Report 2018**

[462] IDFC (2018) **IDFC Green Finance Mapping Report 2018**

Figure 87: Years in which climate finance data has been reported to the OECD (AIIB only started operations in 2016)



***Source**: E3G analysis of climate-related development finance from OECD-DAC[463].*

Figure 87 shows the years that climate finance data has been reported to the OECD. KDB and CDB report aggregate figures to the International Development Finance Club, but they do not report to the OECD. China is not a member of the OECD and its Development Assistance Committee, and this is likely the reason for CDB not reporting[464]. South Korea is a member of the committee and the Korea International Cooperation Agency (KOICA) reports its climate finance[465]. However KOICA is relatively small in size and only provided grant financing for climate over 2016 and 2017. This totalled USD 83 million[466], much less than the USD 421 million of mitigation financing that KDB reported to the IDFC for just 2017[467].

[463] OECD (2018) **OECD DAC External Development Finance Statistics**

[464] OECD (2018) **DAC Members**

[465] Donor Tracker (2018) **South Korea Funding Trends**

[466] OECD (2018) **OECD DAC External Development Finance Statistics**

[467] IDFC (2017) **Green Finance Mapping**

The reporting to the OECD is standardised and each project has both a sectoral and sub-sectoral tag for categorisation. However, often this tagging does not provide enough detail to evaluate a project's operation. This is important for assessing the efficacy and exact detail of a project.

Within the database, there is a field for both the 'short description' of a project and a longer description of the project. The short description can also just be a project title. These description fields are important for determining the exact nature of a project's operations. Figure 88 shows the average number of letters used in the short description field for each institution.

Figure 88: Average number of letters used in the short description field

	2012	2013	2014	2015	2016	2017
AIIB	0	0	0	0	44	41
AsDB	20	14	0	54	54	66
IBRD	0	45	47	49	50	49
IDA	0	51	49	52	51	48
IFC	0	44	39	29	0	0
JICA	27	27	27	27	26	26

***Source**: E3G analysis of climate-related development finance from OECD-DAC*[468]

The table shows that ADB (except 2014), provided the most amount of detail in the short description field whilst JICA and IFC provided the least. IFC failed to provide anything in 2016 and 2017 and should strive to rectify this in the future.

Figure 89 shows the level of detail provided in the longer description field for each project. Only JICA and ADB provided information in this field. JICA however provided less detail than in the short description field. Often this field was a copy of the short description field. ADB provided large amounts of information, which allows for more robust interrogation of the data. Each institution should strive to align with the level of reporting provided by ADB.

[468] OECD (2018) **OECD DAC External Development Finance Statistics**

Figure 89: Average number of letters used in long description field

	2012	2013	2014	2015	2016	2017
AIIB	0	0	0	0	0	0
AsDB	310	812	949	49	54	503
IBRD	0	0	0	0	0	0
IDA	0	0	0	0	0	0
IFC	0	0	0	0	0	0
JICA	25	25	26	25	25	26

***Source**: E3G analysis of climate-related development finance from OECD-DAC*[469]

Within the OECD database, there is a field for 'overlap' finance. Climate finance can be tagged as mitigation and/or adaptation finance. Usually, the total climate finance of a project is the sum of the portions of the project that are deemed 'adaptation' or 'mitigation'. However, in some cases where a project contributes to adaptation and mitigation, the total climate finance is reported twice under both adaptation and mitigation. Figure 90 shows the institutions that report overlapping climate finance. JICA consistently reports overlapping finance. IBRD and IDA, both appear to have done so for 2013 and 2014 but have now stopped. This leaves JICA as the sole institution still reporting this way.

In the OECD database, AIIB has double counted a project using two-line items. One-line item is listed under adaptation finance and the other is listed as mitigation finance. It is unclear why this has occurred. The project was the Bangalore metro rail project, which according to AIIB's website, was provided with financing of USD 335 million from AIIB[470].

[469] OECD (2018) **OECD DAC External Development Finance Statistics**

[470] AIIB (2017) **Bangalore Metro Rail Project**

Figure 90: Amount reported as 'overlapping finance' by institution (USD billion)

	2012	2013	2014	2015	2016	2017
AIIB					0.0	0.0
AsDB	0.0	0.0	0.0	0.0	0.0	0.0
IBRD		0.2	0.0	0.0	0.0	0.0
IDA		0.1	0.3	0.0	0.0	0.0
IFC		0.0	0.0	0.0	0.0	0.0
JICA	0.2	0.2	0.2	0.3	0.3	0.1

***Source**: E3G analysis of climate-related development finance from OECD-DAC*[471]

Financial intermediaries

Development finance institutions often provide capital to financial intermediaries, which use this capital to invest in smaller sub-projects. The addition of the intermediary often leads to a reduced level of transparency regarding the specific projects being financed. There are examples of financial intermediaries financing coal projects, despite the DFI having a virtual ban on coal financing. IFC is a good example of this [472] [473]. AIIB had a sub-investment in the IFC Emerging Asia Fund that was supporting the increased use of coal for a cement company[474].

The table below focuses on the transparency of these 'sub-projects'. None of the institutions consistently disclose FI sub-projects. This is a clear area for improvement across all institutions, especially regarding the disclosure of the name, sector, details and location of a sub-project[475] and the level of financing towards a sub-project.

[471] OECD (2018) **OECD DAC External Development Finance Statistics**

[472] Bank Information Centre (2019) **Dangerous Distractions**

[473] BIC Europe (2018) **Civil Society Welcomes IFC's Moves to Exclude Coal in its Financial Intermediary Lending**

[474] Bank Information Centre (2019) **Dangerous Distractions.** This was an investment in the Shwe Taung Cement Company in Myanmar, which includes a new kiln fuelled by coal.

[475] Oil Change International (2018) **Civil Society Welcomes IFC's Moves to Exclude Coal in Its Financial Intermediary Lending**

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Figure 91: An assessment of the banks' financial intermediary transparency

Bank	FI lending as % of total	Financial intermediary transparency
AIIB	14% since creation[476]	Some progress - Environmental assessments of high-risk sub-projects published
ADB	In 2018, 4.4% of total ADB lending (own resources)[477]	Some progress - Environmental assessments of high-risk sub-projects published
CDB	Unknown	Not aligned - CDB does not disclose FI sub-projects on its website
IBRD/IDA	Unknown	Some progress - Environmental assessments of high-risk sub-projects published
IFC	55% in 2018[478]	Some progress - Very little of intermediary portfolio disclosed. Piloting a voluntary disclosure of high risk sub-projects
JICA	Unknown	Some progress - Environmental assessments of sub-projects published
KDB	Unknown	Not aligned - KDB does not disclose FI sub-projects on its website

Asian Development Bank

ADB requires that "for category A and environmentally sensitive B subprojects above the free limit, the Environmental Impact Assessment (EIA) or Initial Environmental Examination (IEE) must be cleared by ADB before subproject approval. The summary EIA or summary IEE must be disclosed to the public at least 120 days before the sub-project is approved"[479]. If a financial intermediary has been financed by the Asian Development Bank for climate projects, it is tagged as "development financing institution" under the mode of financial assistance in the database.

Previous studies have found no disclosed FI sub-projects on the ADB website but was not clear whether this is due to no environmentally risky projects being funded or a lack of disclosure[480]. The Asian Development Bank highlighted at least one Category A sub-project financed through an intermediary. The sub-

[476] AIIB (2019) **Investor Presentation**

[477] Information provided by the AsDB

[478] Oxfam (2018) **Open Books: How DFIs can be transparent in their financial intermediary lending, and why they should be**

[ADB] (2003) **Financial intermediation loans**

[480] Oxfam (2018) **Open Books: How DFIs can be transparent in their financial intermediary lending, and why they should be**

projects were related to energy efficiency in the chemical industry[481]. For Category B projects, the intermediary is responsible for reviewing and disclosing the sub-project, in accordance with ADB's guidelines. Disclosure is not required on the ADB website, but on the third party's website[482].

Disclosure is challenging to find on the ADB website and difficult on intermediary websites, especially across numerous languages. All sub-projects should be disclosed, using the same method used for directly-funded ADB projects, which is a downloadable table format.

Asian Infrastructure Investment Bank

AIIB has reportedly committed to releasing information about FI sub-projects including "relevant social and environmental documentation…that is proportionate to the associated environmental and social risks and impacts". To date, the AIIB has not disclosed information on any of the sub-projects its FI clients support[483] [484]. This could potentially be because the majority of approved FI projects are still in the project/investee/sub-funds selection stage[485]. However, this means that the few that have been decided, do not feature anywhere.

AIIB's Environmental and Social Framework (ESF) states that disclosing sub-project information is the responsibility of the financial intermediary. Considering this information is available from the clients, the AIIB should aim to aggregate this information onto their website, much like it does for approved and proposed projects. The reason for this being that it is often hard to navigate other websites, especially across numerous languages. As the AIIB grows, a central depository of sub-projects will allow robust interrogation of the projects taking place.

All of AIIB's FI sub-projects are subject to AIIB's Energy Strategy: Sustainable Energy for Asia[486].

[481] **ADB (2018) Project document PRC Chemical industry energy efficiency**

[482] E&S due diligence report, **on this website**.

[483] AIIB (2019) **Approved Projects**

[484] Bank Information Centre (2019) **Dangerous Distractions**

[485] Information provided by AIIB.

[486] Information provided by AIIB.

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China Development Bank

CDB does not disclose FI sub-projects on its website.

World Bank Group

IBRD/IDA

Oxfam found the Bank's 2013 operational procedure stated it would disclose the summary of the Environmental and Social Impact Assessment of sub-projects considered high risk (Category FI-1 and FI-2)[487], but also found IBRD/IDA seemed to disclose full reports of impact assessments, mitigation, and resettlement plans[488].

The newer Environmental and Social Framework states the FI will submit the "environmental and social performance of its portfolio of FI subprojects. The annual report will include details of how the requirements of this Environmental and Social Framework are being met, the nature of the FI subprojects financed through the project, and the overall portfolio risk, profiled by sector". This appears to suggest that the sub-projects will now be aggregated upon disclosure[489].

IFC

In 2017, IFC stated that all sub-projects related to private equity funds since 2012 are now on its Disclosure Portal. Private equity funds represent about 11% of IFC's financial intermediary portfolio, meaning 89% of its financial intermediary portfolio is not disclosed[490].

Over the next two years, IFC is also piloting the voluntary disclosure of high-risk sub-projects from financial intermediary clients[491]. All IFC investments in the real sector with emissions over 25,000 tCO_2eq/y disclose their project-level environmental and social information through IFC's website for the Environmental and Social Review Summary[492].

[487] World Bank (2013) **BP 4.03 - Performance Standards for Private Sector**

[488] Oxfam (2018) **Open Books: How DFIs can be transparent in their financial intermediary lending, and why they should be**

[489] World Bank (2017) **Environmental and Social Framework**

[490] Oxfam (2018) **Open Books: How DFIs can be transparent in their financial intermediary lending, and why they should be**

[491] Devex (2018) **A new IFC vision for greening banks in emerging markets**

[492] Information provided by the IFC.

Japan International Cooperation Agency

In principle, JICA undertakes environmental reviews and information disclosure for sub-projects prior to implementation in the same manner as specified for Category A projects, and JICA discloses the results of environmental reviews on its website after concluding agreement documents.[493]

Environmental information disclosure for projects is released by region on the JICA website. For Southeast Asia[494], there were 10 projects classified as 'FI' out of a total of 330 projects. Only four projects had an environmental review and only one had a report that listed all the sub-projects in detail[495].

Korea Development Bank

KDB does not disclose FI sub-projects on its website.

[493] JICA (2010) **Guidelines for environmental and social considerations**

[494] JICA (2018) **Southeast Asia Information Disclosure**

[495] JICA (2018) **Second Transport Sector Loan for National Road Network Improvement** -

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CHAPTER 9
OVERARCHING CLIMATE STRATEGY

Figure 92: An assessment of the banks' standalone climate strategy

Bank	Standalone climate strategy
AIIB	Not aligned – AIIB doesn't have a standalone climate strategy.
ADB	Paris aligned – climate strategy details need for moving away from traditional demand-led model and climate finance commitments until 2030.
CDB	N/A – There is no evidence of a standalone climate strategy although "green growth" is one of its five core values. CDB has however signed up to some other initiatives related to green finance.
JICA	Paris aligned – strategy integrates both mitigation and resilience.
KDB	Not Paris-aligned – KDB does not have a standalone climate strategy, but recognises climate change as a "challenge" in its overarching strategy.
WBG	Paris-aligned – The strategy includes both mitigation and adaptation, and also acknowledges that climate is a threat to poverty reduction. Focus now needed on implementation in all parts of the Bank's activities, including technical assistance.

Sources: E3G Assessment

Figure 93: Definitions for standalone climate strategy

Assessment	***Not aligned***	***Some progress***	***Paris-Aligned***	***Transformational***
Standalone climate strategy and integration of climate in overarching strategy	Lack of climate strategy. No integration into overarching strategy	Limited climate strategy or no indicators to monitor progress. Limited integration of mitigation or resilience	Evidence of progress on comprehensive climate strategy, plus integration of mitigation *and* resilience in overarching strategy	Integration of both deep decarbonisation and resilience, roadmap for alignment with 1.5°C and strong evidence of implementation; principle of do no harm to the Paris goals

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Summary

This section assesses whether climate change is integrated into the institution's overall governance and overarching strategy, and whether the bank has a general climate change strategy. It also assesses to what extent key facets of climate action (such as mitigation and adaptation) are reflected in the strategy.

Recommendations

> ADB should update its Country Partnership Strategy guidelines to incorporate its climate change strategy.

> AIIB should produce a dedicated climate change strategy, potentially as part of its Corporate Strategy in 2020.

> JICA should shift its climate strategy further towards a "do no harm" approach for all the projects it funds to further align all operations with the Paris Agreement.

> KDB should consider putting in place a standalone climate strategy

> CDB should consider putting in place a standalone climate strategy, which could be based on the regular Sustainability Reports the institution publishes.

> The World Bank should align its climate strategy with its lending and technical assistance to further embed deep decarbonisation in its client countries.

> The World Bank should continue its move to a more proactive role on climate instead of the traditional demand-led approach, for example in furthering consideration of climate risk and resilience, which is often not considered in either development strategies or NDCs.

> The World Bank should support client countries to identify and implement programmes, including institutional reforms, that can support deep decarbonisation and alignment with a 1.5°C pathway.

Asian Development Bank

Figure 94: An assessment of ADB's climate strategy

Bank	Climate strategy	Overarching strategy
ADB	Climate strategy goes beyond the traditional demand-led model	Strategy until 2030 commits to addressing climate change, building climate resilience and enhancing environmental sustainability

ADB has fully mainstreamed climate change into its overarching strategy, and this is in turn being gradually mainstreamed into its operations.

ADB was the first MDB to implement climate finance commitments through to 2030 in its Strategy 2030[496] and detailed in its Climate Change Operational Framework 2017–2030 (CCOF 2030)[497]. The Bank's strategy also suggests that ADB is going to take a more proactive role on climate; this means the Bank focusses more on communicating the risks of climate change and opportunities associated with a low carbon economy[498]. This is important as some members countries' current mitigation policies in Nationally Determined Contributions are insufficiently ambitious to reach the Paris Agreement goals[499]. Further resilience measures will also lead to greater economic and social benefits[500].

The CCOF 2030 is centred on five actions: supporting institutional development and policy frameworks conducive to ambitious climate action; facilitating access to public and private, domestic and international climate finance; promoting the use of climate technologies in operations; developing knowledge solutions and capacity development support; and strengthening partnerships and networks[501].

Furthermore, in 2018 ADB published their Strategy 2030[502], which makes climate change one of the Bank's eight operational priorities. The strategy commits the Bank to addressing climate change, building climate and disaster resilience and enhancing environmental sustainability. The Strategy states that the future

ADB (2018). **Strategy 2030**

ADB (2017) **Climate Change Operational Framework 2017–2030**

ADB (2018). **Strategy 2030**

499 Climate Action Tracker (2019) **Climate Action Tracker**

500 Global Commission on Adaptation (2019) **A global call for leadership on climate resilience**

ADB (2017) **Climate Change Operational Framework 2017–2030**

ADB (2018) **ADB Strategy 2030**

operation of ADB is going to be designed to help meet the SDGs, the Paris Agreement and the Sendai Framework for Disaster Risk Reduction.

The ADB has also published its "Strategy 2030 Operational Plan for Priority 3: Tackling Climate Change, Building Climate and Disaster Resilience, and Enhancing Environmental Sustainability, 2019–2024".[503] This details further plans for how to deliver climate finance across the ADB and how this translates to different departments within the organisation.

Asian Infrastructure Investment Bank

Figure 95: An assessment of AIIB's climate strategy

Bank	Climate strategy	Overarching strategy
AIIB	The Bank has no standalone climate strategy.	The Bank has set out to be "lean, clean and green" in its overarching strategy.

The mission of AIIB, which was founded in 2015, and started operations in 2016, is to be "lean, clean and green", and one of AIIB's thematic priorities is sustainable infrastructure. In its strategy it states that its aims are to "green infrastructure and supporting countries to meet their environmental and development goals"[504]. The bank's Environmental and Social Framework (ESF) mentions "measures for climate change" and "support for green economic growth" as two of several elements within its vision. On the measures for climate change, it refers to the Paris Agreement and both mitigation and adaptation as key elements to achieve Paris goals. The ESF states it prioritises "investments promoting greenhouse gas emission neutral and climate resilient infrastructure, including actions for reducing emissions, climate-proofing and promotion of renewable energy". It also, emphasises that the bank is ready to support its clients to finance its NDCs – the latter are not aligned with the Paris Agreement.

[503] ADB (2019) **Strategy 2030 Operational Plan: Climate Change**

[ADB] (2019) **Strategy 2030 Operational Plan for Priority 3**

AIIB has published different sectoral strategies since it was founded and has engaged with the private sector on various environmental and social standards. However, AIIB does not have a standalone climate strategy to inform how this is going to be achieved. Climate change will be featured in the upcoming corporate strategy[505].

China Development Bank

Figure 96: An assessment of CDB's climate strategy

Bank	Climate strategy	Overarching strategy
CDB	N/A – There is no evidence of a CDB climate strategy.	"Green growth" is one of five core values.

There is no publicly available evidence of CDB having a standalone climate strategy.

The China Development Bank reports some of its environmental policies and management in annual sustainability reports[506]. The 2018 Sustainability Report states that they have promoted a green Belt and Road Initiative by "issuing green credit and bonds … to support climate change mitigation"[507].

CDB's overall mission is to enhance national competitiveness and "improve people's livelihood"[508]. Green growth is cited as one of the five core values of CDB. However, it does not provide details on what green growth means in practice or how this relates to its commitment to align to the Paris Agreement.

CDB also states that the Bank does business according to the Ten Principles of the United Nations Global Compact, which cover environmental standards as well as human rights, labour standards and anti-corruption[509].

CDB recently endorsed the Green Investment Principles for the Belt and Road Initiative[510]. This is an opportunity to ensure that CDB investments overseas

[505] E3G exchange with AIIB's staff

[506] CDB (2016) **Sustainability strategy**

[507] CDB (2018) Sustainability report 2018

[508] CDB (2019) **Core values webpage**

[509] UN Global Compact (2017) **CDB Sustainability report**

[510] China Green Finance Committee (2017) **Green Investment Principles for the Belt and Road Initiative**. The seven guiding principles that inform the Green Investment Principles include sustainability in corporate governance;

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comply with basic green standards, although there is room for improvement in making these principles more stringent. A secretariat with dedicated working groups is in the process of being set up and an update is expected by summer 2020.

In 2005, CDB became one of the first Chinese banks to establish environmental and social policies [511]. In 2007, CDB launched a "Working plan of CDB for loans to reduce pollution and emissions[512]". This was aimed at shifting lending to energy savings, emission reduction and pollution prevention projects by adjusting loan structures. Environmental guidelines have been put in place and an Environment Impact Assessment (EIA) is conducted during the loan approval process. As regards energy-intensive industries (e.g. coal mining, oil and gas exploration and development, power generation and transmission, and hydropower), the environmental impact assessment needs to be approved by the relevant environmental authorities and reviewed by an independent evaluator. The CDB credit committee can reject loans for environmental reasons by exercising the "one-ballot veto" procedure, but it is unclear what standards it applies in making these decisions[513]. It should be noted that it is unclear whether this process applies to overseas projects as well as domestic projects.

According to other research that has been conducted on CDB, environmental policies have been incorporated in CDB's corporate social responsibility guidelines since 2007 which inform the Bank's lending practices[514].

understanding of environmental, social and governance risk factors; environmental information disclosure; information sharing with stakeholders and utilisation of green financial instruments.

[511] Also mentioned in FT (2013) **Q&A: (Almost) all you need to know about China Development Bank**

[512] FoE (2016). **Emerging Sustainability Frameworks. China Development Bank and China Export-Import Bank**

[513] FoE (2016). **Emerging Sustainability Frameworks. China Development Bank and China Export-Import Bank**

[514] FOE. **China Development Bank's overseas investments: An assessment of environmental and social practices**. Note the original CDB document is no longer available online.

Japan International Cooperation Agency

Figure 97: An assessment of JICA's climate strategy

Bank	Climate strategy	Overarching strategy
JICA	JICA incorporates climate change mitigation and adaptation at the project planning stage.	Climate change is included in the medium-term plan and acknowledged as "global threat", but is not classed as a "priority"[515]

After the Paris Agreement was adopted, JICA released its standalone climate strategy, referred to as its "climate change cooperation strategy". This was updated in December 2018[516]. It states that mainstreaming of climate change is being implemented by incorporating climate change mitigation and adaptation as early as the planning stage of its projects. It highlights the importance of long-term commitments in tackling climate change by providing support on institutional development and capacity enhancement in countries where there is limited capacity to adequately take on the process of implementing, monitoring and reporting NDCs and increasing their ambition[517].

In addition, the climate change cooperation strategy is reflected in the Development Cooperation Strategy of Japan – the latter directs the overall development policy[518]. Climate change features in two aspects of the Development Cooperation Strategy of Japan: quality growth and that growth must be resilient and sustainable over generations; and addressing global challenges, where climate change is a priority. Climate is also featured within JICA's medium-term plan, which sets out the operational focus areas for the period 2017–2022[519].

[515] See https://www.jica.go.jp/english/about/organization/c8h0vm000000ks38-att/medium_term_plan.pdf

[516] JICA (2018) **JICA's Cooperation on Climate Change**

[517] JICA (2016, 2018) **JICA's Climate Change Cooperation Strategy**

[518] MOFA (2015) **Cabinet decision on the Development Cooperation Charter**

[519] JICA (2017) **Medium-term Plan of Japan International Cooperation Agency**

Korea Development Bank

Figure 98: An assessment of KDB's climate strategy

Bank	Climate strategy	Overarching strategy
KDB	KDB doesn't have a standalone climate strategy.	Climate change is recognised as a challenge[520].

The Korea Development Bank does not have a standalone climate strategy.

In December 2016 KDB was accredited as an Implementing Entity of the Green Climate Fund (GCF), the first Korean financial institution to achieve this status[521]. It has also issued green bonds and has a dedicated credit line for eco-friendly businesses[522].

It has committed to the Equator Principles, however these principles are very narrow and do not represent a climate strategy[523][524]. The Korea Development Bank states that it is committed to "supporting sustainable and quality growth through helping people and their environment by providing resources, sharing knowledge, building capacity and forging partnerships in the public and private sector"[525]. It also recognises climate change as a serious global challenge and "climate impacts may impede economic and social wellbeing and development efforts"[526].

[520] See https://www.kdb.co.kr/ih/wcms.do?actionId=ADIHIHENWC001&contentPage=/ih/ih/en/IHIHEN17I00001_01RS.html&localeCode=en

[521] KDB (2017) **Annual Report**

[522] Ibid.

[523] BankTrack **The equator principles and climate change**

[525] See https://www.kdb.co.kr/ih/wcms.do?actionId=ADIHIHENWC001&contentPage=/ih/ih/en/IHIHEN17I00001_01RS.html&localeCode=en

[526] See https://www.kdb.co.kr/ih/wcms.do?actionId=ADIHIHENWC001&contentPage=/ih/ih/en/IHIHEN17I00001_01RS.html&localeCode=en

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World Bank Group

Figure 99: An assessment of WBG's climate strategy

Bank	Climate strategy	Overarching strategy
WBG	The Bank's climate strategy includes both mitigation and adaptation, and climate threat to extreme poverty	Climate change is integrated into overall strategy.

The World Bank Groups climate action plan is aligned with the Paris Agreement, although it is not 'transformational'[527].

The WBG Climate Change Action Plan (CCAP) – published in 2016 – recognises that climate change is a threat to its core mission of ending extreme poverty and promoting shared prosperity[528]. The plan provides clear information and actions to support countries to address their current and future climate related opportunities and risks, whilst recognising that countries are starting from different points; therefore, the strategy also recognises that support needs to be bespoke. The action plan is supported by five strategic shifts: "(i) accelerate implementation with a focus on how to get results on the ground; (ii) ensure convergence of the WBG climate and development agendas so that climate stabilisation is coordinated with country strategies and operations; (iii) maximise impact, moving from measuring inputs to measuring impacts; (iv) boost resilience, where the portfolio will be rebalanced with a greater focus on adaptation; (v) transformation, as achieving global commitments will require a shift from business as usual, the action plan will focus on facilitating transformational impacts"[529]. The action plan has also been included within the overall vision of the World Bank[530]. Furthermore, the World Bank has adopted its 2025 Targets to Step up Climate Action[531].

The World Bank Group's Maximizing Finance for Development approach[532] and IFC's new strategy called IFC 3.0 both emphasise the importance of moving upstream to identify where they are able open new markets such as offshore wind[533].

[527] E3G (2018). **Banking on Reform. Aligning Development Banks with the Paris Climate Agreement**

[528] World Bank (2016). **Climate Change Action Plan 2016-2020**

[529] World Bank (2016). **Climate Change Action Plan 2016-2020**

[530] World Bank (2017). **Forward Look. A Vision for The World Bank Group in 2020 – Progress and Challenges**.

[531] World Bank (2018) **2025 Targets to Step Up Climate Action**

[532] World Bank (2019) **Maximizing Finance for Development (MFD)**

[533] IFC (2018) **IFC's Strategic Alignment with the SDGs**

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CHAPTER 10
INTEGRATION OF CLIMATE IN SECTORAL STRATEGIES

Figure 100: An assessment of the banks' integration of climate into sectoral strategies

Bank	Integration of climate mitigation and resilience in key sectoral strategies
AIIB	Some progress – The energy strategy doesn't exclude coal, the transport strategy is unclear on promotion of green technologies in less developed countries, and there is no water strategy yet.
ADB	Some progress – All strategies consider aspects of mitigation resilience, but there is no official coal exclusion.
CDB	N/A – There is no evidence of sector strategies. CDB implements the policies of the Chinese government.
JICA	Not Paris aligned – The strategies are in contradiction to or make no mention of climate. Energy strategy highlights need for coal.
KDB	N/A – There is no information or evidence of sector-specific strategies. There are plans to finance projects related to hydrogen/electric charging stations, electric vehicles and public transport.
WBG	Paris-aligned – Adaptation and mitigation are included in a balanced way across sectoral strategies.

***Sources**: E3G Assessment*

Figure 101: Definitions for integration of climate into sectoral strategies

Assessment	*Not Paris-aligned*	*Some progress*	*Paris-aligned*	*Transformational*
Integration of climate mitigation and resilience in key sectoral strategies	No integration in key sectoral strategies	Limited integration in some sectors	Strong evidence of integration of both resilience and mitigation in key sectors (transport, energy, water and cities)	Integration of deep decarbonisation and systemic resilience in key sector strategies

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Summary

In this chapter each bank's sectoral strategy is assessed on how effectively it integrates climate mitigation and resilience. The World Bank seems to have aligned itself with the Paris Agreement and the inclusion of low carbon and resilience is clear across all of its sector strategies. AIIB and ADB are also making considerable progress. AIIB has energy and transport strategies, both of which integrate climate change to some degree. However, AIIB's energy strategy still has some notable omissions given that it is does not rule out support for coal.

In the case of CDB and KDB, given the lack of publicly available information, it was not possible to evaluate in full to what extent climate was considered in the assessment of the projects, as there were not any publicly available sectoral strategies.

Overall it is important to note however that there is often a big gap between banks' strategy and policy documents and the implementation on the ground at project level. There is also often a gap between a bank's overarching climate strategy and the sectoral strategies. These gaps need to be closed as quickly as possible if these banks are to deliver on their commitment to align with Paris.

Recommendations

> AIIB leadership should revisit their energy and transport strategies in the coming years given that the Bank aims to be 'green'.

> CDB and KDB should develop and publish sectoral strategies, using the MDB's strategies as reference.

> ADB should update its Energy Policy and is set to do so in 2020; this could provide an opportunity to align it with its climate change and overall 2030 strategy.

> JICA should update its energy policy to bring it in line with its commitment to align with the Paris Agreement.

> WBG should integrate deep decarbonisation into its energy strategy.

> CDB and CDBC should adopt the draft CDBC urban guidelines as official policy.

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Background

Development finance institutions have a key role to play in the finance of infrastructure and can help developing countries mobilise finance for low carbon and resilient infrastructure[534]. Meanwhile, sectoral investment strategies such as energy strategies are often important in guiding investment decisions at development banks[535].

Climate change is a cross-cutting issue that should be integrated within sectoral investment strategies at development institutions, to ensure consistency with climate goals. This would provide a coherent approach to the meeting of objectives whilst ensuring that resilience and low carbon development are considered in all investment decisions.

Asian Development Bank

Figure 102: An assessment of ADB's integration of climate into sectoral strategies

Bank	Sector	Mitigation	Resilience	Summary
ADB	Energy	There are mentions of promotion of renewables and efficiency, but no coal exclusion.	Climate adaptation is part of the decision-making process.	Some Progress – All strategies consider aspects of mitigation and resilience, but there is no official coal exclusion.
	Transport	The bank's avoid-shift-improve approach is integrated into the strategy.	Analytical tools are in use to integrate climate resilience.	
	Water	The water-food-energy nexus is acknowledged.	Climate impacts are considered in the strategy.	
	Cities	Promote energy efficiency within ADB operations including cooling systems	Increase climate resilience and disaster risk preparedness and response.	

ADB's transport operational plan, or Sustainable Transport Initiative as the Bank calls it, explicitly includes how it is going to address climate change through a

[534] See **http://www.oecd.org/dac/environment-development/Financing-Climate-Futures-NDB-Brazil-South-Africa.pdf**

[535] **https://www.e3g.org/docs/E3G_-_Banking_on_Reform_Report_-_Final.pdf**

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detailed three-step approach, called "avoid-shift-improve" (ASI)[536], in order to limit greenhouse gas emissions. Resilience also features in the plan, as ADB has committed to developing analytical tools that ensure resilience is integrated into its transport operations. ADB acknowledges that transport investment can be vulnerable to climate change, and that the development of transport infrastructure "can inadvertently increase vulnerability to climate change effects"[537].

The ADB energy policy, which was last updated in 2009, requires the Bank to promote energy efficiency and renewable energy. The policy will be updated in 2020. In terms of adaptation, there have been guidelines for climate proofing investment in the energy sector since 2013. ADB's energy policy also aims to integrate adaptation into its decision making, stating "it may be best to promote no-regret or low-regret adaptation strategies that deliver development benefits regardless of nature and extent of changes in climate"[538]. It is notable that this strategy is lacking a fossil fuel or coal exclusion.

ADB's Water Operational Plan recognises that there are interlinkages between water, food and energy needs, which need to be considered in the context of climate change[539]. The plan states that it "has developed a range of operational interventions… in line with emerging best practice measures to respond to the potential adverse impacts of climate change and associated uncertainty"[540]. This emphasises resilience and reducing the impact of climate change on water management but acknowledges that there is room for improvement in terms of the carbon footprint associated with water losses. ADB has been supporting the introduction of integrated water resources management as an adaptive management process in river basins[541].

ADB has an urban operational plan[542] which runs to 2020 which integrates both climate risk and resilience effectively. This work has been carried out and a new operation plan under the Strategy 2030 called "Making Cities More Liveable", 2019-2024 emphasises the need for building cities that are green, inclusive,

[536] According to the ADB's Sustainable Transport Initiative: "avoid means reducing the need to travel, for example by integrating land use and transport planning to create local clusters of economic activity that require less mobility; shifting traffic to modes with lower emissions and energy consumption, and improving transport efficiency on existing modes".

[537] See **https://www.adb.org/sectors/transport/key-priorities/climate-change**

[538] **https://www.adb.org/documents/energy-policy**

[ADB] (2011). **Water Operational Plan**.

[540] Ibid

[ADB] (2011). **Water Operational Plan**.

[ADB] (2012) **Urban Operational Plan**

competitive and resilient[543]. This new operation plan emphasises the integration of climate resilience as well as natural capital into the urban planning and design, as well as a focus on energy demand via energy efficiency and increase on heating and cooling access based on renewable energy.

Asian Infrastructure Investment Bank

Figure 103: An assessment of AIIB's integration of climate into sectoral strategies

Bank	Sector	Mitigation	Resilience	Summary
AIIB	Energy	Reducing GHG emissions is a core part of the energy strategy, but there is no coal exclusion.	Evaluation and mitigation of climate risks	Some progress – There is no coal exclusion in energy strategy; the transport strategy is unclear on the promotion of green technologies in less developed countries, and there is no water strategy.
	Transport	The Avoid-shift-improve principle is integrated into the strategy.	There is no mention of climate risk or resilience in the strategy.	
	Water	N/A	N/A	
	Cities	Climate mitigation included as key goal.	Resilience to slow-onset climate impacts included.	

The AIIB has three strategies: energy, transport and sustainable cities. There is currently no dedicated water strategy at the bank. However, the institution is working on this and it is aiming to have two more strategies, water strategy and digital infrastructure strategy ready at some point next year

The transport strategy[544] includes the three-step approach "avoid-shift-improve", and accounts for both mitigation and adaptation. However, it mentions that for "upper, middle and high-income countries where basic transport provision has been met, projects financed by AIIB will come with additional focuses on spreading green transport technologies and uplifting transport productivity"[545]. It is not clear whether green technology is going to be implemented within the design of projects for places where basic transport has

[ADB] (2019). **Strategy 2030. Operational Plan for Priority 4: Making Cities More Livable,2019–2024**

[544] AIIB (2018) **Transport Strategy**

[545] AIIB (2018) **Transport Strategy,** page 5.

not been met however. There is no mention of climate risk or resilience in the strategy.

On energy, in its strategy AIIB acknowledges the importance of reducing greenhouse gas emissions, and the strategy focuses on "projects in renewable energy, energy efficiency, rehabilitation and upgrading of existing plants, and transmission and distribution networks"[546]. Furthermore, members of the AIIB leadership have made statements indicating that the Bank will not support coal power plants[547], although this has not yet been officially integrated in the energy sector strategy. The support to countries is to be aligned with the country's national energy plans and NDCs. However, as some countries' NDCs are not currently Paris-aligned, there is room for more commitment to climate mitigation and encouraging further ambition of NDCs.

As regards climate risk, the energy strategy states that "climate risks will be evaluated and mitigation and adaptation measures developed where appropriate"[548], which shows that this aspect has been well integrated into the strategy. "Asia will face higher risks if climate threats are not mitigated … environmental and social risks and impacts continue to be an important issue in the planning, implementation and operation of energy infrastructure"[549]. The energy strategy also recognises the specific challenge of financial intermediaries, and states that "attention will be paid to their capacity for environmental and social management and careful screening of subprojects".

Although the AIIB does not have a water strategy yet it does have a sustainable cities strategy[550]. Water supply and sewage systems are covered in this strategy, and there is a mention of the use of nature-based solutions in this sector. AIIB is working on a water strategy to be published in 2020[551].

The Bank's sustainable city strategy recognises the need to put the growth of Asian cities in the context of climate change and includes climate mitigation and resilience as one of the main goals of sustainable cities. It defines resilience as

[546] AIIB (2017) **Energy Sector Strategy: Sustainable Energy for Asia**

[547] See AIIB section of Chapter on Fossil Fuel Exclusion Policies for more detail.

[548] AIIB (2017) **Energy Sector Strategy: Sustainable Energy for Asia**, page 19.

[549] AIIB (2017) **Energy Sector Strategy: Sustainable Energy for Asia**, page 3.

[550] AIIB (2018) **Sustainable cities strategy**

[551] Information provided to E3G by AIIB's staff

the "ability to withstand both sudden shocks (e.g. natural disasters) and slow-onset impacts (e.g. through climate adaptation)" [552].

China Development Bank

Figure 104: An assessment of CDB's integration of climate into sectoral strategies

Bank	Sector	Mitigation	Resilience	Summary
CDB	Energy	N/A	N/A	No evidence of publicly available sector strategies.
	Transport	N/A	N/A	
	Water	N/A	N/A	
	Cities	A CDB subsidiary has draft guidelines/ principles.	N/A	

There is no public evidence of CDB standalone plans, policies or strategies for different sectors for their overseas or domestic operations.

A subsidiary of CDB, called China Development Bank Capital (CDBC) has draft "Guidelines for green and smart urban development"[553] publicly available. These guidelines appear to be targeted mainly at investments within China. These guidelines cover green buildings, renewable and distributed energy, waste management and water efficiency. It includes principles such as all new developments should be within a 500-meter radius of a bus or rapid transit station and energy efficiency standards within buildings and that there should be 5-15% local renewable energy generation in residential areas. It would appear these draft guidelines from 2015 were never adopted as official guidelines but did form the basis of a CDBC endorsed book[554] that has been used as a reference document in CDBC urban development planning.

[552] AIIB (2018) **Sustainable cities strategy**

[553] CDBC (2015) **12 Green guidelines on smart and urban development: draft for comment**

[554] Energy Foundation China and Energy Innovation Policy and Technology LLC (2018) **Emerald Cities: Planning For Smart And Green China**

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Japan International Cooperation Agency

Figure 105: An assessment of JICA's integration of climate into sectoral strategies

Bank	Sector	Mitigation	Resilience	Summary
JICA	Energy	Supports efficient technology in "inevitable" coal expansion	Avoiding climate risk included but more detail needed	Mixed. Some strategies in contradiction to or no mention of climate
	Transport	Climate not mentioned in transport section of Annual Plan	No specific mention of climate risk in relation to transport policy	
	Water	Some mentions of climate in water strategy	Little or no mentions of climate risk or resilience	
	Cites	Low carbon cities core goal of urban policy. Unclear if low carbon excludes fossil fuel technologies	Emphasis on how cities exacerbate climate impacts	

JICA's energy strategy[555] is supposedly based on its "3L" policy: low cost, low carbon, and low risk. JICA's energy strategy[556] highlights the role of renewables, energy efficiency and geothermal power. However, it also states that:

> *"A **significant expansion of coal-fired power** in developing countries is considered unavoidable in the future. What is necessary in such a situation is to reduce CO_2 emissions as much as possible by utilising every available technology. As Japan leads the world with this technology and is one of the few donors who can provide relatively large-scale funding for this field, JICA expects to play a significant role in disseminating the technology."*

JICA's energy policy, which dates back to 2013, is therefore not aligned with its climate strategy.

The low-risk part of the JICA's "3L" strategy includes "avoiding or reducing climate risks"[557]. However, there is no further detail on how JICA intends to

[555] JICA (2013) Strategy paper for the energy sector (provisional English translation – no link available)

[556] *Ibid.*

[557] JICA (2013) Strategy paper for the energy sector (provisional English translation – no link available), page 7.

operationalise this. The wider JICA Annual Report does however include sections on climate risk assessment[558].

JICA does not have a standalone publicly available transport strategy[559], despite transport being the largest recipient of financing with JICA's portfolio in 2017[560]. Furthermore, the transport overview page on the JICA website states that transport infrastructure is part of GHG emissions reductions[561]. However, the JICA Annual Plan 2018 provides an indication of JICA transport priorities, which are to develop Japan's road-based Intelligent Transport Systems overseas and to 'consider introducing a new urban railway system in each country'[562]. Climate change is not mentioned within this section, but the overall goal appears to be the development of more efficient transport systems. There are no specific mentions of climate risk in relation to JICA transport policy.

On the Bank's Cooperation Strategy for the Water Resource Sector[563], climate change mitigation and adaptation are considered. JICA is promoting initiatives that are oriented around strengthening the "resilience" of river basins and the protecting local communities dependent on them. From a mitigation perspective it acknowledges that water distribution is energy intensive and suggests that the energy source be considered[564].

JICA cites creating low-carbon cities that can respond to global warming as a core goal of its urban and regional development work[565] as part of its Urban Growth for Inclusive and Dynamic Development – this document sets out the direction of the Agency. It emphasises how urbanisation can exacerbate climate impacts.

[558] See more information on JICA and climate risk assessment in Chapter 3 on climate risk.

[559] JICA (2018) **Transportation Overview**

[560] JICA (2018) **JICA 2018 Annual Report**

[561] JICA (2018) **Transportation Overview**

[562] JICA (2018) **JICA Annual Plan for Fiscal Year 2018**

[563] JICA (2017). **Cooperation Strategy for Water Resource Sector**

[564] JICA (2017). **Cooperation Strategy for Water Resource Sector**

[565] JICA (2019) **Urban and regional development** and JICA (2013) **Urban growth for inclusive and dynamic development**

Korea Development Bank

Figure 106: An assessment of KDB's integration of climate into sectoral strategies

Bank	Sectors	Mitigation	Resilience	Summary
KDB	Energy	N/A	N/A	There is no information or evidence of sector-specific strategies.
	Transport	Climate change is not considered in transport sector investments	N/A	
	Water	N/A	N/A	
	Cities	N/A	N/A	

There is no publicly available information or evidence of standalone sector plans, policies or strategies for KDB's overseas or domestic operations[566]. There is no specific mention of transport or water strategies in the KDB Annual Report 2017. KDB supports and follows the policies of the Korean government. For example, as regards cities, the KDB Annual Report states that "in the real estate sector, KDB plans to fully promote the government's New Deal Policy for Urban Restoration"[567]. KDB supports Korean companies within and outside Korea but unlike the Korea Export-Import Bank is not required to have 100% Korean content in the projects it finances.

KDB statements have confirmed that climate change considerations are not taken into account in transport sector investment projects[568]. Furthermore, it has been confirmed that climate change considerations do not play a role in the project appraisal process within KDB, which bases its project financing decisions on commercial aspects and bankability[569]. It is important to note however that the KDB has signed up to the Equator Principles, which constitute basic environmental, social and human rights standards, and that these should therefore in theory be integrated within the decision-making process of the different sector teams (energy, transport etc) within the bank[570].

[566] This was confirmed by email exchanges with personnel of the bank, who clarified that the bank does not have such policies.

[567] KDB (2017) **Annual Report 2017**, page 24.

[568] Documents provided by Korean authorities to E3G containing further information on Korea Development Bank.

[569] Information provided to E3G by current and former KDB staff.

[570] Equator Principles (2017) **Korea Development Bank: The First Korean Bank to Adopt the Equator Principles**

World Bank Group

Figure 107: An assessment of WBG's integration of climate into sectoral strategies

Bank	Sector	Mitigation	Resilience	Summary
WBG	Energy	The Bank's focus is on delivering NDCs.	Energy policy refers to climate resilience.	Overall there is good integration of climate mitigation and risks in the sectoral strategies.
	Transport	Climate change is one of four priority goals.	Climate adaptation is included in the priority goals.	
	Water	Water policy is used to address climate change.	Resilience is a core pillar of the Bank's water and wastewater strategies.	
	Cities	The emphasis is on urban GHG emissions.	The focus is on preparing cities for climate risks.	

The World Bank's energy policy is focused on promoting clean energy and energy access, and the policy also includes some reference to climate resilience[571]. The World Bank has committed to supporting countries meet their NDCs, and more broadly from 2019, the Bank will not finance upstream oil and gas investment[572]. Furthermore, last year the World Bank, along with Canada and the UK, announced financial and technical advisory support for middle- and low-income countries that have decided to embark on the low carbon transition[573].

However, although the WBG has committed to supporting countries in meeting their NDCs, its energy strategy does not go far enough to support an enduring transition to a low carbon economy (similar to the case with the transport sector). The recent initiative with the UK and Canada seems to be demand-led. Furthermore, there are some examples where WBG is helping overcome barriers to incorporating climate resilience and supporting the development of institutional frameworks to enhance resilience at country level[574].

[571] World Bank (2018) Energy Overview
[572] World Bank (2018). Energy Overview
[573] See **World Bank, Canada, UK to Assist Countries in Transition from Coal; Accelerate Uptake of Cleaner Energy**
[574] World Bank (2017). Barriers to Climate-Resilient Infrastructure Financing, SCF Forum Presentation, September 2017.

The World Bank's transport strategy[575] is based around four priority goals: access for all, efficiency, safety and climate change. The climate change priority includes both mitigation and adaptation. The World Bank has been central to the development of the Sustainable Mobility for All (Sum4All) initiative[576] created in 2016.

As regards water, the WBG launched its new Strategic Action Plan in 2019. The goals are to be delivered through three inter-related pillars: (1) sustain water resources, (2) deliver services, and (3) build resilience. Therefore, WBG water policy seeks to address climate change and promote resilience and access to water supplies at the country, project and river basin level[577], whilst having a separate strategy for the climate change impact of solid waste management which addresses both resilience and mitigation[578]. Water is seen to be at the centre of climate adaptation.

As regards cities and urban policy, the World Bank's strategy focuses on preparing cities for climate risks[579]. There appears to be less focus on climate mitigation within the WBG's urban development strategy, but the fact that cities account for a large proportion of GHG is emphasised.

Sectoral five-year targets for 2025 include supporting:

> 36 GW of renewable energy and 1.5 million GWh-equivalent of energy savings through efficiency improvement.

> 100 cities achieve low-carbon and resilient urban planning and transit-oriented development

> Integrated landscape management in up to 50 countries, covering up to 120 million hectares of forests[580].

[575] See the **Transport Overview** page on the World Bank website. It is unclear whether there is a separate transport strategy document.

[576] See **www.sum4all.org** for more information. The initiative includes 50 organisations and agencies in the transport sector with the World Bank acting as secretariat.

[577] World Bank (2018) **Water Overview**

[578] World Bank (2018). Energy Overview

[579] World Bank (2019) **Urban Development overview**

[580] World Bank (2018) **2025 Targets to Step Up Climate Action**

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CONCLUSIONS

Implications for future research

One of the lessons learnt from this report is that there is a shortage of publicly available data, information and research on the activities of the Banks studied, especially with regards to the China Development Bank and Korea Development Bank. In many cases no information was available in English as to whether these bilateral development banks had specific policies, or whether there was activity on a particular aspect of climate-related finance.

Further research is needed on more quantitative metrics of Paris alignment such as total absolute GHG emissions of each bank's portfolio, project-by-project absolute GHG emissions and GHG emissions per dollar invested. It would be welcome if the development banks themselves could publish this information in their annual and joint reports to enable more quantitative comparisons between the banks.

This report focuses primarily on the infrastructure-heavy sectors of energy, transport, water and cities[581]. There are however other important climate-relevant areas and sectors including fisheries, oceans, waste and soils, which were not included due to time constraints, that would merit additional research.

Further research would also be welcome on the performance of the six banks studied in this report on the six E3G metrics of Paris alignment that we were not able to include here due to resource constraints: forests and land use; energy access and poverty; innovative instruments and mobilisation of private finance; institutional leadership and information sharing; internal carbon pricing; integration of climate change into country work. Further research on the use of nature-based solutions and just transition would also be welcome.

Finally, further research conducted in the respective languages of the various institutions may be useful to further deepen the scope and detail of this research by making additional evidence available.

[581] Within the Organisation for Economic Co-operation and Development (OECD) reporting system, "infrastructure" refers to the sectors of water and sanitation, energy generation and support, transport and communications. Communications infrastructure was determined to be less relevant to climate-related finance and has received limited climate-related development finance so far. See: **https://www.e3g.org/library/sustainable-infrastructure-what-progress-in-multilateral-development-banks**

Reflections on next steps

This report concludes that there are varying levels of Paris Agreement alignment among key public finance institutions in Asia, based on the various criteria we have identified and used to assess the Asian Infrastructure Investment Bank, the Asian Development Bank, the China Development Bank, the Korea Development Bank, the Japan International Cooperation Agency and the World Bank Group. Amongst the multilateral institutions, the World Bank and the Asian Development Bank have made significant progress in terms of Paris alignment across the various metrics. The AIIB is still a young institution and in the process of setting its overall strategy and sectoral policies, which is likely to result in further action in the near future. Amongst the bilateral institutions, JICA is performing well across many of E3G's metrics. China Development Bank and Korea Development Bank appear, according to the publicly available information, to have only just begun their Paris Agreement alignment, although more announcements may be forthcoming soon.

It is essential that the process of alignment with the Paris Agreement is accelerated internally in all the institutions. The International Development Finance Club, as the coordinating body for bilateral, regional and national development banks, has an important role to play in this. It is worth noting that that the Paris Agreement alignment process is just part of a wider harmonisation of standards at multilateral development banks. Climate standards are being harmonised, but so are standards in governance, gender and worker's rights. This makes sense as these standards represent a number of core values that all development finance institutions, irrespective of their regional or mandate differences, have in common.

The analysis and conclusions of this report will of course need to be updated over time, especially as the AIIB establishes itself further and establishes more policies and invests in more projects. The report also leads to a number of reflections on the role of development finance institutions in the years and decades to come.

Alignment of development bank operations with the Paris Agreement is a crucial first step. Once this is complete, more thought leadership is needed on these institutions' long-term role in the economic transformation required by climate change, including (but not limited to) their role in setting norms, meeting national financing needs, providing technical assistance and leveraging private

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finance. All development finance institutions are crucial actors in upholding multilateralism in a world where the international rules-based system is increasingly under threat, and providing a mechanism to support solving complex problems of economic development and inequity between the global North and South[582].

Development banks should be, and may already be, preparing for and thinking about their part in responding to the next global financial crisis or major economic downturn – which could well be triggered by a climate change related driver. Potential global or national responses should be at the very least 'climate aware' or 'climate smart'. Thought is needed about what the role of development will be in this context both globally and in the Asian context. This is all part of long-term thinking that needs to be done to ensure that development banks play a key role in the financial, development and rules-based international systems over the longer term. The development banks which are leading the way in Asia today will have a crucial part to play in determining the future path of international development and climate safety.

[582] I U Delikanli et al (2018) **Multilateral development banks: governance and finance**. This foreword in general builds on the thinking in this book.

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ANNEX 1: DEFINITIONS OF LEVELS OF PARIS ALIGNMENT

The table below shows how E3G defined the various levels of the different criteria used to judge Paris Agreement alignment, including a definition of what could be seen as 'transformational' and going beyond 'basic' Paris alignment. These transformational actions should be seen as the final goal of this process.

We fully recognise that Paris Agreement alignment is a complex concept and is subject to the challenges inherent within the Paris Agreement, including the current gap between the collective ambition of the NDCs and the long-term goals of the Paris Agreement and the fact that not all Parties have yet developed national long-term decarbonisation strategies. Nonetheless, we have sought to define what Paris alignment could look like under the various aspects or metrics of climate action at development institutions, in line with the six building blocks of Paris Agreement alignment development by the MDBs.

Figure 108: Definitions for the various levels of Paris alignment

MDB Paris alignment blocks	E3G criteria	Benchmarks			
		Not aligned	**Some progress**	**Paris-Aligned**	**Transformational**
Alignment with mitigation goals	**Greenhouse gas accounting at project and portfolio level**	No GHG accounting at project or portfolio level	Tracking emissions only in certain sectors; or full tracking but no target to reduce emissions	Ambitious target to peak and reduce portfolio GHG emissions	Science-based target to reduce portfolio emissions (or better), covering both direct and indirect lending and Scopes 1, 2 and 3.
	Policies to restrict finance to fossil fuels	No fossil fuel exclusions or evidence of recent fossil fuel investments	Exclusions on either coal or upstream oil and gas	Commitment to ending all fossil fuel finance by 2020; already implemented exclusions on coal and upstream oil and gas	Total exclusion of fossil fuels and related infrastructure with official policy and full implementation, direct and indirect lending

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MDB Paris alignment blocks	E3G criteria	Benchmarks			
		Not aligned	Some progress	Paris-Aligned	Transformational
Adaptation and climate-resilient operations	**Climate risk**	No project-level climate risk management, very little adaptation finance.	Basic project-level climate risk management, lack of systemic approach to resilience.	Comprehensive project-level climate risk management, enhancing client resilience, and scaling adaptation finance.	Promoting project-level climate risk management, leading identification of structural needs, and catalysing broader adaptation finance flows.
Accelerated contribution to the transition through climate finance	**Green-Brown energy ratio and scaling up climate investment in all sectors**	Fossil fuel investment outweighs climate-related energy investment	Climate investment increasing but low green–brown ratio	Scaling up climate investment in the energy sector and 'brown' lending at zero.	Scaling up climate investment in all sectors. 'Brown' lending at zero.
	Energy efficiency strategy, standards and investment	Lack of integration of basic efficiency standards, low investment in efficiency	Incremental changes to improve energy productivity, some investment in efficiency	Energy efficiency standards across all sectors promote best available technology and identify investment needs; no carbon lock-in effects.	An energy efficiency first principle drives innovative approaches to delivery of efficient infrastructure. Demand side reduction prioritised over new infrastructure where possible; new infrastructure only built to highest energy efficiency standards
	Promotion of green finance	Lack of support for green finance	Limited promotion of green finance and green fiscal and tax reform	Emerging promotion of green finance in banks, local and national institutions, insurers and regulators.	Driving systemic change across all financial actors including banks, local and national institutions, insurers, central banks and regulators

MDB Paris alignment blocks	E3G criteria	Benchmarks			
		Not aligned	Some progress	Paris-Aligned	Transformational
Engagement and policy development support	**Technical assistance for implementing Paris goals and national transitions**	No evidence of technical assistance to help implement Paris Agreement goals; or evidence of technical assistance misaligned to Paris.	Limited standalone technical assistance on Paris goals, or technical assistance not fully aligned with Paris goals	Evidence of technical assistance programmes to implement existing NDCs, not necessarily consistent with 1.5°C	Programme to help implement Paris Agreement goals and raise ambition of NDCs, consistent with 1.5°C. Supporting countries with ambitious regulatory and market reforms
Reporting	**Level of transparency of climate related information**	Lack of transparency on any climate related projects	Limited transparency and disclosure. Project level information available	Full project level information available including detailed descriptions. Sub-projects of financial intermediaries are disclosed	Institutions to report to a joint MDB-IDFC project level database using the same reporting format as OECD
Align internal activities	**Standalone climate strategy & integration of climate in overarching strategy**	Lack of climate strategy. No integration into overarching bank strategy	Limited climate strategy or no indicators to monitor progress. Limited integration of mitigation or resilience	Comprehensive climate strategy, integration of mitigation *and* resilience in overarching bank strategy	Integration of both deep decarbonisation and resilience in strategy, roadmap for alignment with 1.5°C and strong evidence of implementation. Principle of "do no harm" to Paris goals.
	Integration of climate mitigation and resilience in key sectoral strategies	No integration in key sectoral strategies	Limited integration in some sectors	Strong evidence of integration of both mitigation and resilience in key sectors (transport, energy, water and cities)	Integration of deep decarbonisation and systemic resilience in key sector strategies

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ANNEX 2: SOURCES OF PROJECT-LEVEL DATA USED IN THE ANALYSIS

OECD DAC Recipient Perspective – Climate Finance[583]

Self-reported MDB project-level data on climate-related development finance is collated by the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC). This dataset includes both adaptation and mitigation activities.

Oil Change International – Shift the Subsidies database[584]

The Shift the Subsidies database tracks energy financing for projects, policies, technical assistance, and financial intermediary projects. This includes both clean and fossil projects.

NRDC Consolidated Coal Finance Database[585]

The National Resource Defence Council (NRDC) Consolidated Coal Finance Database tracks G20 public financing for international coal projects in the form of loans, grants, equity financing, guarantees, and technical assistance funds. It includes G20 export credit and insurance agencies, bilateral development finance institutions and multilateral development banks in which G20 countries play a major role.

China Global Energy Finance database – Boston University[586]

The China Global Energy Finance database tracks and displays overseas development finance in the energy sector provided by China's two global policy banks – the China Development Bank and the Export-Import Bank of China.

Asian Infrastructure Investment Bank Projects[587]

The AIIB lists all approved and proposed projects on its website, and E3G has compiled key information from these projects into its own database.

[583] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[584] Oil Change International (2018) **Shift the Subsidies database**

[585] NRDC (2018) **The Questionable Future of Overseas Coal Investments**

[586] Boston University (2018) **China's Global Energy Finance**

[587] AIIB (2019) **AIIB Approved Projects**

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ANNEX 3: PORTFOLIO-LEVEL DATA

For these six institutions studied, two portfolio-level sources of information exist that show aggregate financing for specific years. This was used in some parts of the analysis in this report, and was used as supplementary data to the project level data that was the primary source of data in this report. These can provide an additional indication of the financing provided by each institution. The major caveat is that this data is not provided at the project level, therefore the data cannot be scrutinised in the same way project-level data can. The portfolio-level sources of information are listed below.

International Development Finance Club (IDFC) Green Finance Mapping[588]
In December 2017, the IDFC, joined by the multilateral development banks, issued a joint statement on aligning their financial flows with the Paris Agreement. For 2017, JICA, CDB and KDB provided information on their 'green finance' across mitigation and adaptation.

Joint Report on Multilateral Development Banks' Climate Finance[589]
The major MDBs annually report their financial resources committed to enabling activities that mitigate climate change and adaptation to climate change in developing and emerging economies.

The scope of reporting regarding the destination of these financial commitments is likely to differ. This makes direct comparisons hard but is interesting to explore nonetheless. The example below demonstrates the uncertain nature of this data.

[588] IDFC (2018) **Green Finance Mapping 2018**

[589] World Bank (2018) **MDB Climate Finance Hit Record High of USD 35.2 billion in 2017**

Figure 109: Amount committed by JICA under different reporting mechanisms (2017)

Report Source	Report Category	Amount USD millions
IDFC Reporting	Adaptation	3,175
OECD Reporting	Adaptation	3,455
IDFC Reporting	Green energy and mitigation of GHGs	3,693
OECD Reporting	Mitigation	3,895
IDFC Reporting	Both Mitigation and Adaptation	112
OECD Reporting	Overlap	107
IDFC Reporting	Other	2,577
OECD Reporting	Other	N/A

***Source**: E3G analysis of climate-related development finance from OECD-DAC[590] and IDFC[591]*

JICA is the only institution that reports to both the IDFC and the OECD. The table shows how the numbers compare between the two sets of data. The naming convention for the categories differ slightly, but for JICA, the numbers match closely. In the IDFC report, there is an 'other' category that is not included under OECD reporting. This refers to broader environmental financing, rather than specific climate financing[592].

[590] OECD (2018) **Climate Change: OECD DAC External Development Finance Statistics**

[591] IDFC (2018) **Green Finance Mapping 2018**

[592] IDFC (2018) **Green Finance Mapping 2018**

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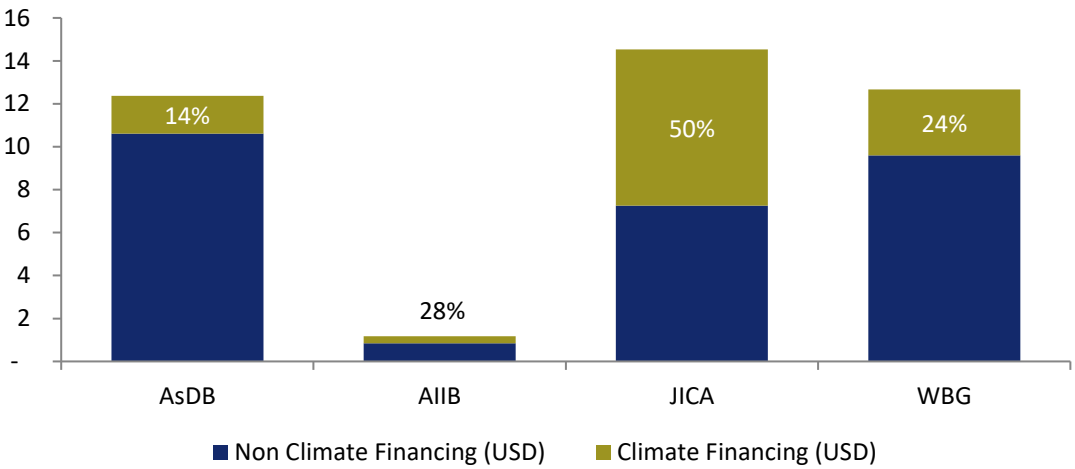
ANNEX 4: LOW CARBON TRANSPORT FINANCING

Due to the increased level of data availability compared to other sectors, the proportion of transport financing that is 'low carbon' can be estimated for four of the development institutions included in this study. These DFIs provide project-level data for their total operations, including a sectoral tag. CDB and KDB are the exceptions. Using the OECD climate finance database, an estimate of total transport financing which is climate-related can be calculated for each institution – see the figure below.

Figure 110: Non-climate and climate transport financing (Sum of 2016 and 2017) USD billion



***Sources**: Climate Financing – OECD Database, Non-Climate Transport Financing – ADB 2016[593], ADB 2017[594], AIIB[595], WBG[596], JICA 2017[597], JICA 2018[598]*

[593] ADB (2016) **ADB Annual Report 2016: Operational Data**

[594] ADB (2017) **ADB Annual Report 2017: Operational Data**

[595] AIIB (2019) **AIIB Approved Projects**

[596] World Bank (2019) **World Bank Annual Report Data**

[597] JICA (2017) **JICA 2017 Annual Report**

[598] JICA (2018) **JICA 2018 Annual Report**

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ANNEX 5: GLOSSARY OF ACRONYMS

ADB	Asian Development Bank
AsDB	Asian Development Bank (abbreviated thus by E3G to distinguish it from the African Development Bank, used in some footnotes and earlier E3G reports)
AIIB	Asian Infrastructure Investment Bank
CDB	China Development Bank
ASEAN	Association of Southeast Asian Nations
CAPE	Climate Action Peer Exchange
CHP	combined heat and power
CPF	Carbon Partnership Facility
DFI	development finance institution
ESMAP	Energy Sector Management Assistance Program
GHG	greenhouse gas emissions
IDFC	International Development Finance Club
IEA	International Energy Agency
IFC	International Finance Corporation
IFI	International financial institutions
IMF	International Monetary Fund
IRENA	The International Renewable Energy Agency
JICA	Japan International Cooperation Agency
KDB	Korea Development Bank
MOHURD	Ministry of Housing and Urban-Rural Development (China)
MIGA	Multilateral Investment Guarantee Agency
MDB	multilateral development bank
OECD	Organisation for Economic Co-operation and Development
WBG	World Bank Group
IPCC	Intergovernmental Panel on Climate Change
NDCs	nationally determined contributions
NRDC	Natural Resources Defense Council
PMR	Partnership for Market Readiness
TCAF	transformative carbon asset
TCFD	Task Force on Climate-related Financial Disclosures
SCD	Systematic Country Diagnostic
WBG	World Bank Group