



POWERING THE TRANSITION

World Bank and other IFI energy lending in Asia

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This year, the World Bank is holding its Annual Meetings in Asia. This is a region that will be key to the success of the global energy transition, and at the same time has much to lose if it does not happen fast enough, because its people are so vulnerable to climate change.

The most climate-vulnerable Asian countries are spearheading a new form of climate leadership and have set visionary goals. How can the World Bank, together with other international financial institutions (IFIs), support them to turn these bold commitments into reality?

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For further information on the issues raised in this paper please email advocacy@oxfaminternational.org

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Cover photo: Mai Thi Chau describes the hard work of making charcoal, which she uses for cooking: 'I have to go to the forest, chop wood and burn it all night.' Through a local energy plan, Mai is helping her commune in Vietnam's Ca Mau province switch to renewable energy systems and biogas cooking, to save time and money. A combination of rising sea levels, salt water intrusion and climate change is threatening the farming and fishing communities in the low-lying Mekong Delta. Photo: Tessa Bunney/Oxfam.

‘The V20 countries are both the world’s most vulnerable economies and the most promising ones in terms of growth potential. That potential, along with our and other countries’ very existence, is threatened by climate change. Faced with this challenge and a tremendous urgency for climate action, all financial flows, including those of multilateral development banks, should be aligned with the Paris Agreement, the 1.5 degrees Celsius temperature limit, and our members [sic] economies’ 100% renewable energy vision in support of sustainable development.’

– *Vulnerable 20 (V20) Group of Finance Ministers Communiqué, 2017*¹

1 INTRODUCTION

The World Bank meets in Indonesia, days after the wake-up call of the Intergovernmental Panel on Climate Change (IPCC) 1.5°C report, and ahead of the UN climate talks where countries must prepare to revisit their nationally determined contributions (NDCs) to keep the goals of the Paris Agreement in sight.

In parallel, the Climate Vulnerable Forum (CVF) of countries will be organizing at the very highest level,² under the leadership of the first female president of Pacific Island nations, to inject a new kind of political momentum to raise ambition. Their own commitment to reach 100% renewable energy by 2050 raises the bar for other countries, and challenges the World Bank – and other international financial institutions (IFIs) – to match their bold leadership with finance.

This paper holds up a mirror to current and planned IFI energy sector support in Asian climate-vulnerable countries. It shows how this is not yet fit for purpose, and recommends how IFIs can intervene at this critical juncture to give governments the confidence to step up.

If done right, IFI financial and technical support can unlock and operationalize higher renewable energy ambition. This paper also warns of what to avoid by showing that the costs of indirectly-supported coal would end up harming the region that IFIs are trying to help.

2 IFI ENERGY LENDING IN ASIAN CVF COUNTRIES

The Climate Vulnerable Forum (CVF) is a group of the world’s most disaster-prone, climate-vulnerable countries. There are 10 Asian members: Afghanistan, Bangladesh, Bhutan, Cambodia, Mongolia, Nepal, the Philippines, Sri Lanka, Timor-Leste and Vietnam.

With their people experiencing some of the worst impacts of climate change – from super cyclones to extreme flooding, displaced communities and disappearing arable land – CVF governments and their citizens know that inaction is no longer an option. Despite having done very little to cause climate change, the CVF is taking impressive steps to tackle it. On the international stage, it has been a leading moral voice for greater ambition, successfully advocating for the inclusion in the Paris Agreement of a global goal to limit temperature increases to 1.5°C, under the motto ‘1.5 degrees to thrive’.

In 2015, CVF member states created the Vulnerable 20 (V20) Group of Finance Ministers, to bring together the Finance Ministers of all CVF countries (which now number more than 20).

The V20 is focused specifically on mobilizing financial resources for climate action. It has called on IFIs to align their operations with the Paris Agreement, the 1.5°C limit, and with their member economies' 100% renewable energy vision in support of sustainable development.³

CURRENT IFI ENERGY LENDING

Alignment with the Paris Agreement means IFIs should ensure that their entire operations (beyond just energy) support countries to develop in a low carbon and climate-resilient way. For example, agricultural portfolios should support vulnerable farmers to adapt to growing climate disruption.

For the purposes of this paper, however, we focus on energy-related finance of the World Bank Group, Asian Development Bank (ADB) and Asian Infrastructure Investment Bank (AIIB). As the AIIB has only been operating for a couple of years, its portfolio is still relatively small.

We find that none of these institutions appear to be prioritizing renewable energy. All are directing a larger portion of their limited public funds to fossil fuels rather than renewables. Their collective energy portfolios in Asian V20 countries amount to over \$17bn, of which about \$4.5bn is for fossil fuels and \$3.5bn for clean energy (modern renewable energy and energy efficiency).⁴ The remainder is mainly grid infrastructure.

Spending remains skewed towards fossil fuels, even for energy project approvals, since the Paris Agreement (Figure 1). This runs counter to IFI commitments to align their operations to the Paris Agreement, as clean energy should be the rule, not the exception.⁵ A greater effort is needed to meet the V20 call for climate investment.⁶

Figure 1: Energy project approvals in Asian V20 countries since the Paris Climate Agreement – shares for clean energy vs fossil fuels (US\$ bn)

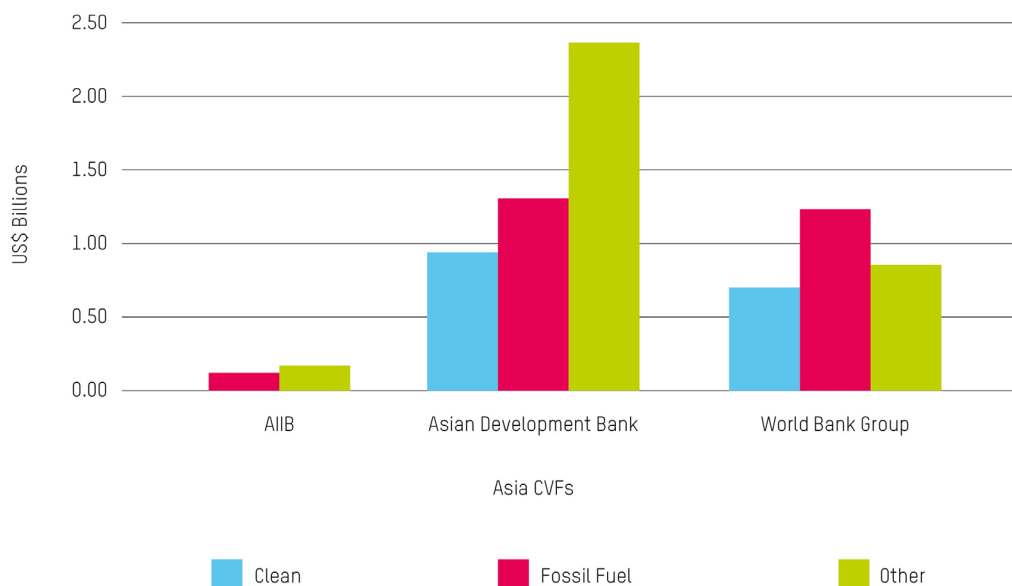


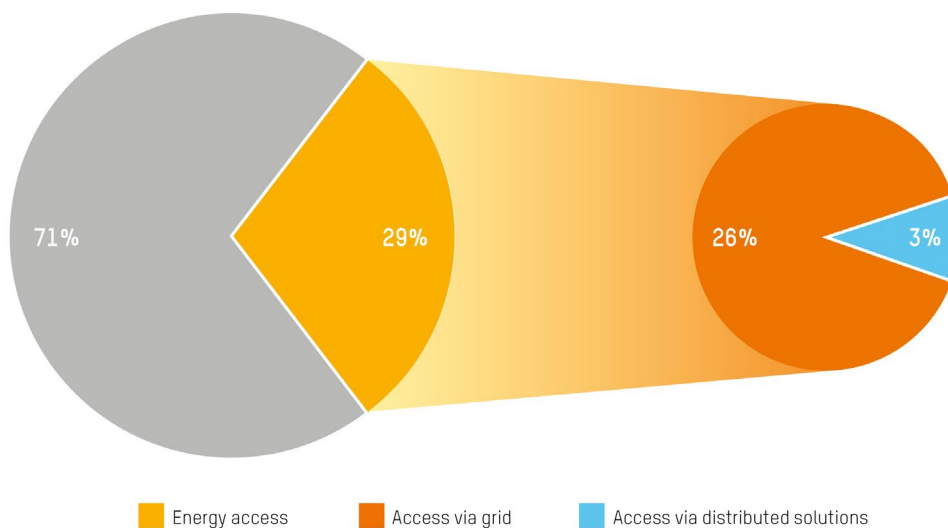
Figure 1 shows IFI energy investments in Asian V20 countries for FY16–FY18 and the share for fossil fuels, clean energy (modern renewable energy and energy efficiency), and 'other' (mainly grid infrastructure, including some large hydropower).⁷

In practice, IFIs do not appear to be making new commitments to coal directly, and the World Bank Group has recently pulled out of oil and gas exploration and production. However, among the 'other' category this year and last year are ADB loans totalling \$950m for a new

electricity transmission line and associated infrastructure to transport power from two coal-fired power plants in Bangladesh.⁸ This kind of support helps to make coal plants financially viable where they might otherwise not be.

Hundreds of millions of people in Asian V20 countries face energy poverty.⁹ Despite this, less than a third of IFI energy finance has been specifically targeted at expanding **energy access** since the Sustainable Development Goals (SDGs) were agreed (Figure 2). Of that energy access finance, only about 10% is for distributed energy solutions such as clean cooking, off-grid and mini-grid, compared to about 90% for expanding access via the centralized grid. Yet distributed solutions tend to have the biggest development impact as they can best meet the needs of poor, remote communities. For example, solar home systems can be quickly installed in areas (e.g. remote islands) where grid extension is unlikely, are affordable compared to alternatives like kerosene or diesel, and reliably provide energy services people need, such as lighting and phone charging. In particular, clean cooking receives negligible amounts of energy finance, despite the fact that in Asia this is the most pressing energy poverty challenge – and one with a female face. While women wait for clean cooking, they pay with their time and health (collecting fuelwood, and labouring over smoky, inefficient fires – see Box 1 below).

Figure 2: Energy project approvals in Asian V20 countries since SDG 7 was agreed – share for energy access (and within that, share for distributed solutions)



Note: The yellow segment shows the share of IFI energy finance FY16–FY18 targeted at improving energy access. This is broken down into the share for extending and powering the centralized grid (orange), and the share for distributed solutions, i.e. off-grid, mini-grid and clean cooking solutions (blue).¹⁰

BUDGET SUPPORT AND POLICY CONDITIONS

IFIs are moving to provide a larger share of their sovereign lending as general budget support, and require ‘prior actions’ (regulatory changes) before countries can access this finance.

These prior actions are agreed between IFIs and governments. Importantly, they should be aligned with national development plans and have the support of the respective national civil societies. The right energy policies are critical if countries are to avoid being locked into the discredited fossil-fuel-dependent energy systems of the past and instead blaze a new trail towards sustainable and truly inclusive economies. The World Bank’s own Regulatory

Indicators for Sustainable Energy (RISE) provide a blueprint for how governments can put in place the right investment conditions to meet SDG 7 to ‘ensure access to affordable, reliable, sustainable and modern energy for all’ by 2030.¹¹

While the ADB’s Energy Development Policy Loan for Indonesia, agreed last year, includes reforms that accelerate efforts towards SDG 7, it is a cause for concern that it also includes reforms to promote risky fracking for shale gas, as part of an overall aim to increase oil and gas investment by billions of dollars.¹²

DIRECTION OF FUTURE LENDING

What matters most is the direction of travel. The World Bank and the ADB agree country strategies with governments to guide future investments, and the next section looks at these strategies to 2020 and beyond in four selected countries in Asia. For Indonesia and Vietnam, there are welcome signs of a shift in approach: both the World Bank and ADB are taking steps to focus their support on achieving SDG 7, though not yet at the scale required. In Bangladesh, however, support for renewable energy access seems to be reversing. None of the country strategies studied features clean cooking.

3 FUTURE DIRECTION

The World Bank is meeting ahead of the UN climate talks in Poland, where the hope is that all countries will agree to revisit and enhance their NDCs ahead of 2020 to avoid catastrophic climate change. At the same time, countries are preparing to create long-term 2050 low-carbon development plans. Thus, this year and next, countries face an important juncture in energy decision making. Now is a critical time for IFIs to step in and assure governments that finance will be available to support them in raising and delivering on their ambitions.

This section focuses on a few examples of climate-vulnerable Asian countries where energy demand is growing fast – the Philippines, Vietnam and Bangladesh – and sets out the commitments that have been made at a national level to sustainable energy access for all. Indonesia (though not a V20 member) is also included as a case study, given its high climate vulnerability and its status as host of the 2018 World Bank and International Monetary Fund (IMF) Annual Meetings. In each case, we explore how far the planned IFI support measures up to country ambitions, as well as its relevance to country-specific challenges and opportunities.

BANGLADESH

Table 1: Bangladesh country profile

Renewable energy¹³	Target: 10% by 2020. ¹⁴ Current level: <4%. CVF vision of 100% by 2050.
Energy access	Electrification target: 100% by 2021. ¹⁵ Current level: 62%. ¹⁶ Clean cooking: 10% of people have access.
NDC ambition	Conditional and unconditional pledges to curb growth of emissions in the power, transport and industry sectors. ¹⁷

Green finance potential	The IFC estimates that Bangladesh could attract private investments of \$7.1bn for renewables by 2020, rising to \$17bn by 2030 (depending on its renewable energy targets). ¹⁸
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Relevance of planned IFI support

Bangladesh is a world-leader in off-grid solar home systems, and plans to open up new energy access frontiers by pursuing solar mini-grids to power small businesses, and solar irrigation for farmers. These are exactly the kinds of promising initiatives that IFIs can help to de-risk and kick-start, and the World Bank and ADB have recently extended some initial support. Irrigation will be crucial in the context of climate change and, compared with diesel pumps, solar systems will save farmers money – but only if there are schemes that help farmers afford the higher upfront costs of the equipment.

Bangladesh does not yet have any utility-scale renewable energy projects, but the government has applied to the World Bank’s NDC Partnership support facility for assistance with implementing its NDC, and specifically its renewable energy targets, which indicates that it is serious about attracting investment.¹⁹ Land availability is limited in Bangladesh, but creative approaches have been identified, for example making use of factory rooftops for solar panels.

However, of the 10 energy sector projects foreseen in the World Bank Group’s country strategy 2016–2020 for Bangladesh, seven are for fossil fuels and only one is for renewable energy.²⁰ Of the nine ‘firm’ and ‘standby’ energy sector projects observed in the ADB’s Country Operation Plan 2018–2020, only one is for renewable energy (6% of the total budget) and three are for fossil fuels (a third of the total budget).²¹

VIETNAM

Table 2: Vietnam country profile

Renewable energy	Target: 6.5% by 2020, 10.7% by 2030 and 43% by 2050. ²² Current level: negligible (large hydropower accounts for about a third of the electricity mix). CVF vision of 100% by 2050.
Energy access	Electrification target: 100% by 2020. Vietnam has reached >99% in rural areas. Clean cooking: 67% have access. ²³
NDC ambition	Reduce emissions 8% below business-as-usual levels by 2030 (conditional target of 25%, costed at \$18bn).
Green finance potential	The IFC estimates \$59bn renewable energy investment potential by 2030, and \$12.4bn by 2020. ²⁴

Relevance of planned IFI support

Both the World Bank Group and the ADB country strategies plan to support the government’s liberalization of the power sector, through development policy loans. This should help prepare the ground for more renewable energy, but there is a need to ensure low-income groups are protected in the move towards higher, cost-reflective tariffs.

Both banks intend to support Vietnam to reduce its planned reliance on coal. Noting that Vietnam is one of the most energy-inefficient economies in the region, the World Bank Group

plans to make finance available for energy efficiency measures to reduce the need for new coal generation capacity to be built.²⁵ The World Bank Group plans to continue to provide development policy loans for climate change and green growth, yet their project investments only aim to add a small amount of renewable energy capacity (2–3% of the government’s target for 2030).²⁶ Most of the World Bank Group’s programme has yet to be implemented. The ADB is providing a small technical assistance grant to the government to get solar off the ground, however its proposed loan to one of the first large-scale solar power plants in the country was one of the projects cancelled over concerns about government debt levels.²⁷

The ADB has published 2050 Pathways to Low Carbon Development for Vietnam and the Philippines²⁸, and while it is unclear how these will translate into support, the recommendations of these reports on long-term planning could inform the next round of country strategies in both countries.²⁹

Box 1: Energy choices that put women first

Evidence shows that having affordable, reliable, safe access to electricity and clean cooking is particularly beneficial for women. Women and girls are typically responsible for collecting fuel, and if basic energy services are lacking, this leads to excessive workloads, sapping their time and energy and limiting their other opportunities.

IFIs have not made clean cooking solutions a serious priority, perhaps because they are typically small-scale. Yet access to clean fuels and cooking equipment enables women living in poverty to live longer and healthier lives, while freeing up hours normally spent fetching wood.³⁰ If basic energy services were designed and directed to reduce arduous domestic workloads, the women and girls who do this work could have more time to engage in education, paid work and political participation.

It is also important to ensure equal representation of women in the energy sector. For example, in Vietnam, the World Bank plans to support the state-owned utility EVN to achieve a better balance of women in its workforce,³¹ and the World Bank’s private sector arm, the International Finance Corporation (IFC) is, in general, starting to support women on boards and provide access to finance for female entrepreneurs. In a transition to a renewable future, women will not automatically overcome decades of discrimination to access opportunities in the new energy economy unless a deliberate effort is made to enable them to do so.

THE PHILIPPINES

Table 3: The Philippines country profile

Renewable energy	Target: 35% of the electricity mix by 2040 (including large hydro). ³² Current level: 24% of the electricity mix. (including large hydro) ³³ CVF vision of 100% by 2050.
Energy access	Electrification target: 100% by 2022. Current level: 91%. Clean cooking: 45% have access. ³⁴
NDC ambition	Ranked 2°C-compatible by civil society organizations (CSOs) ³⁵ (conditional target of 70% greenhouse gas reduction below business-as-usual levels by 2030).
Green finance potential	The United Nations Environment Programme (UNEP) estimates the Philippines has a \$20bn renewable energy investment potential by 2030, including solar, hydropower, wind and geothermal. ³⁶

Relevance of planned IFI support

The World Bank Group and ADB country strategies for the Philippines are both due to be revised. The ADB did not have any energy projects planned in the 2018–2020 operational business plan,³⁷ but has proceeded with a grant to scope a \$2bn liquefied natural gas (LNG) hub, to import gas destined for power plants in Batangas province as local gas supplies start to run out.³⁸

Both the World Bank Group and the ADB are also providing indirect support to the energy sector. For example, since 2012, the IFC has bought \$100m worth of shares in the Filipino Rizal Commercial Banking Corporation (RCBC), and provided \$105m through a loan and bonds purchase. Since the IFC’s investment (which gave it a seat on the board), RCBC has financed at least 20 new coal-fired power plants or expansions of existing plants in the country, despite widespread public opposition to coal in the Philippines.³⁹ RCBC has provided minimal financing for clean energy.⁴⁰

It is a somewhat different story for another IFC intermediary in the Philippines: BDO Unibank. While this bank has also provided substantial finance for coal, at the same time it has, to date, lent over \$1bn to the Filipino sustainable energy sector, including to the Philippines’ largest solar power plant. A key difference is that IFC provided a number of ‘ring-fenced’ sustainable energy investments to BDO Unibank, helping the bank to familiarize itself with the industry; in contrast, it did not provide any to RCBC. The CEO of Filipino solar firm SunAsia Energy has said of RCBC, ‘Their systems are set up to finance coal. I can’t get a loan from them’.⁴¹

INDONESIA

Table 4: Indonesia country profile

Renewable energy	Target: 23% of total energy mix by 2025 (translates to 25% of electricity mix). Current level: 5% of electricity mix (including geothermal, small hydropower). ⁴²
Energy access	Electrification target: 100% by 2024. Current level: 97%. Clean cooking: 58.4% have access. ⁴³
NDC ambition	Ranked ‘highly insufficient’ by CSOs ⁴⁴ (29% greenhouse gas reduction below business-as-usual levels by 2030).
Green finance potential	Indonesia has the world’s greatest geothermal resource, but has only tapped 11% of its potential to date. ⁴⁵ The IFC estimates Indonesia could attract \$23bn in renewable energy investment by 2030, in line with its targets, with about half of this for biomass, and half for geothermal and small hydropower. ⁴⁶

Relevance of planned IFI support

Despite Indonesia’s high and fast-progressing electrification rate, six million people still live in the dark,⁴⁷ and 60 million people lack access to dependable electricity due to sub-standard supply.⁴⁸ Nearly half of all women cannot cook without harm to themselves and their children. Inequality in Indonesia has reached crisis levels, and one way this shows is in the energy divide. This year, the three billionaire men behind Indonesia’s top coal company will earn

enough interest on their wealth to be able to provide modern, efficient cookstoves to all Indonesian households still living in ‘cooking poverty’.⁴⁹

The sparsely populated islands in the eastern region are lagging furthest behind. Here, renewable energy has been shown to be a lower cost option for powering remote grids, compared to the more widespread use of diesel, yet stakeholders suggest that vested interests in the diesel supply chain could be a barrier.⁵⁰

There is little confidence that Indonesia’s renewable energy target will be met. The state-owned utility, PLN, has not been given a budget to implement the ambitious target. While renewable energy is not subsidized, coal is – creating an uneven playing field.⁵¹

Both the World Bank Group and ADB are taking the right steps to focus their support on achieving SDG 7 goals on sustainable, pro-poor energy in the country. Indonesia’s 2016–2020 country strategy with the World Bank Group warns that coal could increase to 60% of the energy mix by 2019 if more support is not provided for renewables. However, the Bank’s programmed support agreed with the government covers a disappointingly small share of Indonesia’s renewable energy target.⁵²

4 OVERCOMING CHALLENGES

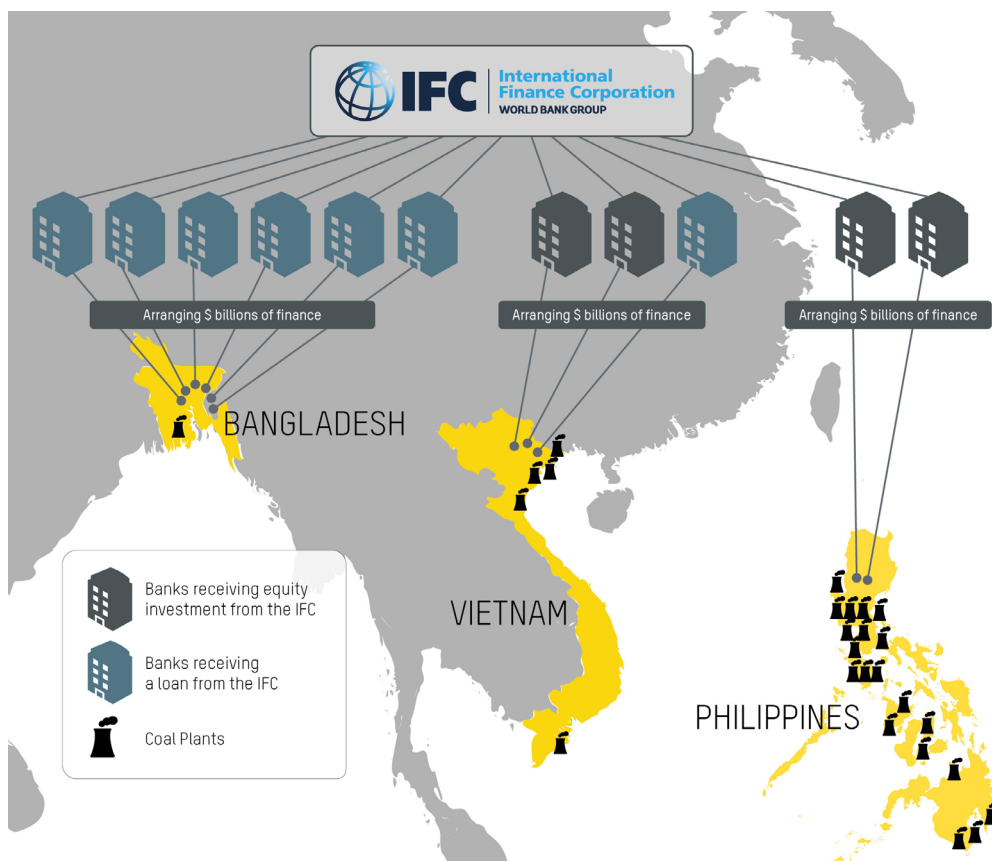
WHY THE DIRECTION OF IFI FINANCE MATTERS

Asia needs energy: global demand for power is growing fastest in this region. IFIs only provide a trickle of overall energy finance flows. But they matter, because of their power to direct private investment and shape government policies. Their concessional funds can be used as the ‘tail that wags the dog’, to funnel private investment dollars to V20 countries, and to open markets. As the ADB Director for Climate Change has put it: ‘*We really need to become conveners of financing, rather than just providers of some of it.*’⁵³ Commercial banks, for example, will need a helping hand to invest in industries that are less familiar to them, as the box below describes. Beyond finance, the ‘stamp of approval’ of a major IFI for renewable energy sends a powerful signal.

Box 2: The IFC's opportunity to raise standards in commercial banks

The IFC directs about half of its finance through intermediaries – many of which are commercial banks.

Based on research by Inclusive Development International, the map below shows a limited snapshot of how some of these IFC intermediaries have on-lent to coal.⁵⁴ It illustrates how 11 well-known banks in the region have, since becoming IFC clients, backed 26 coal plants in Vietnam, Bangladesh and the Philippines, through collectively participating in billions of dollars of project finance, corporate loans and bond underwriting.⁵⁵



Note: The map does not pretend to show a complete picture, but gives a sense (where data is available) of the IFC's indirect links to coal in three selected countries (research did not cover Indonesia). It also shows the IFC's potential impact should it raise standards through, e.g., stricter requirements for their clients. The IFC's influence with each of its client banks varies depending on the type of its investment: an equity investment commonly gives the IFC a seat on the board and a say over governance, but even loans – general or ring-fenced – give the IFC some clout.

The IFC can use its weight with all of its client banks to raise standards in the sector, by:

1. Requiring its clients to publicly report their exposure to coal and fossil fuels;
2. Helping its clients to reduce their exposure to coal and develop coal exclusion policies; and
3. Not making new investments in clients that are more than 5% invested in coal (including associated facilities).⁵⁶

This is in line with the World Bank and the IFC's existing policy of not supporting coal, except in rare circumstances. The IFC has just taken the welcome step to ensure that its *own* dollars are not used by its client banks to support coal – but beyond this, the IFC should set its sights on more systemic change, by incentivizing *all* of its clients (new and existing) to clean up the rest of their portfolios too.

At the same time, the IFC is taking steps to help its clients invest in sustainable alternatives, through ring-fencing its loans, and promoting green bonds. By scaling this up, ensuring green bonds are truly green rather than greenwashed,⁵⁷ and developing a policy to exclude coal from its intermediaries, the IFC can start to bring about the kind of transformational change worthy of the V20's call to redesign the investment agenda of the world economy.⁵⁸

CHALLENGES TO RENEWABLE ENERGY IN ASIAN V20 COUNTRIES

IFIs often claim there is a lack of demand for renewable energy from their client governments. However, in the case of the V20, countries have made bold and ambitious commitments and need IFIs to help them succeed. Nevertheless, it is harder to attract finance for renewable energy in emerging and developing economies, compared to wealthier countries, and hardest of all is attracting finance to the kinds of energy services that the poorest communities need. The box below identifies common challenges faced by vulnerable countries, and some solutions.

Box 3: Why is IFI (and other) finance not flowing to clean energy?

- **A lack of viable pipeline projects.** All kinds of risks (real and perceived) can deter private sector developers from bringing forward renewable energy projects in some countries – or their investors from backing them. For example, there may be doubts about the financial health of the utilities buying the power. As capital costs are usually the largest cost for renewable energy projects (unlike for conventional energy projects), access to affordable finance matters. Yet in lower-income countries, borrowing is particularly expensive, and the longer-term finance that renewable projects need is harder to find.⁵⁹
What IFIs can do: Provide financial guarantees to cover investor risks. IFIs can also support feasibility studies for potential projects.
- **Government policies** can be liable to change, and do not always favour renewable energy. For example, in Indonesia, the government requires new renewable energy projects to charge lower tariffs than the existing (fossil-fuelled) grid.⁶⁰ In Bangladesh, continued integrated planning is needed so that government-backed solar energy access programmes can target areas where the grid is not due to be extended.⁶¹
What IFIs can do: As knowledge banks, IFIs can provide governments with technical assistance, sharing best practice from elsewhere on successful renewable energy policy.
- **Energy access is small-scale.** IFIs and other large investors are more suited to 'big-ticket' deals than to a large number of very small energy access and energy efficiency projects. High transaction costs make it difficult for IFIs to lend directly to the many micro-enterprises or 'last-mile' distributors (often female) who serve the clean cooking and solar needs of the poorest communities (and who struggle most to get loans from local banks).
What IFIs can do: Lend through aggregators such as the Infrastructure Development Company Limited (IDCOL) in Bangladesh or the Alternative Energy Promotion Centre in Nepal (government-owned intermediaries).
- **Bilateral finance** is still being made readily available for outdated coal technology through cosy deals between governments (sometimes linked to export interests, even as donor countries are moving away from coal at home). Indonesia, Bangladesh and Vietnam are the top recipient countries for G20 public coal finance.⁶² In each country, these flows are larger than the total energy finance received from IFIs (and many times larger than IFI finance for renewable energy).

What IFIs can do: Make finance available for renewables, including by working with the private sector, as well as to continue to support favourable government policies.

- **Coal is seen as cheaper than renewables.** This is no longer true in many markets, but where coal may seem more affordable, this is because the externalities are not accounted for (see following section on the economics of self-harm).

What IFIs can do: IFIs and the V20 have agreed to work together to promote carbon pricing, and create incentives for renewable energy.

- **Coal is abundant in the region.** Indonesia is a large coal exporter. Vietnam is a large coal producer but is now starting to import coal. The Philippines relies on imported coal, as Bangladesh plans to do.⁶³ Coal generation is the **incumbent industry**, and so starts from a better-connected, more powerful position; it can also wield more influence where procurement decisions do not follow a transparent process, as examples from Indonesia and the Philippines show.⁶⁴

What IFIs can do: Help governments identify, sequence and champion potential renewable energy deals that improve energy security.

FOSSIL FUEL INVESTMENT: THE ECONOMICS OF SELF-HARM

The following table estimates the impacts of climate change in Asia alone related to a selection of recent fossil fuel projects that are either being supported directly by IFIs, or via financial intermediaries.⁶⁵ Each dollar invested produces a climate impact bill for Asia that is many times higher. These costs include things like damaged harvests, lost livelihoods and farmland laid waste by salt water intrusion. For instance, every dollar invested in the planned Mariveles coal plant expansion in the Philippines (backed by IFC financial intermediary banks) could be associated with \$10 of climate impacts in Asia. This is on top of local health costs which can add an additional \$100 per dollar invested.⁶⁶

Table 5: Estimated climate impacts by project

	Climate damage in Asia per \$ of investment	Climate damage globally per \$ of investment	Total climate damage in Asia over project lifetime
<i>Proposed Riau gas power plant (Indonesia, ADB/IFC)</i>	Up to \$5	Up to \$12	Up to \$1.3bn
<i>Bangladesh Gas Infrastructure Development Project (AIIB)</i>	Up to \$6	Up to \$15	Up to \$2.9bn
<i>Mariveles coal power plant expansion (the Philippines, backed by IFC client banks)</i>	Up to \$10	Up to \$27	Up to \$10bn

5 WAYS FORWARD

RECOMMENDATIONS FOR ASIAN CVF COUNTRIES

- Continue the CVF leadership role on the global stage, and use the platform of the CVF leaders' summit in November 2018 to champion increased ambition.
- Reject the self-harming pursuit of coal, and instead blaze a new trail for development by translating bold commitments to 100% renewable energy and universal energy access into transformative policies and programmes that will shift the direction of IFI lending.
- Work with other Association of Southeast Asian Nations (ASEAN) members to put in place policies and support at a regional level to speed up the implementation of the bloc's 23% renewable energy target by 2025.
- Turn NDCs into investment plans. Identify where NDCs can be enhanced, and where external support is required.
- Work to understand the energy poverty burdens and energy needs of women and create programmes to alleviate these burdens and meet these needs. Support women-owned small and medium enterprises (SMEs) investing in renewable energy.
- Country-specific priority steps to take:
 - **For Vietnam:**

Adjust the renewable energy targets in the Power Development Plan VII, and the Renewable Energy Development Strategy, to be consistent with the CVF vision of 100% renewable energy by 2050. Avoid borrowing for new coal plants or lifetime extensions of existing plants.
 - **For the Philippines:**

Build on the recent coal tax,⁶⁷ and take further steps to level the playing field, so as to unlock renewable energy investment that can ultimately make energy more accessible and affordable to poor households and communities.
 - **For Bangladesh:**

Continue the good record to date by advancing new solar energy access frontiers, while integrating both on-grid and off-grid approaches.
 - **For Indonesia:**

Back the national renewable energy target with resources - mobilize more investment from public and private sources. Join the CVF in recognition of Indonesia's high climate vulnerability.

RECOMMENDATIONS FOR IFIS

- **Align operations with the Paris Agreement to enable a world where climate-vulnerable nations can survive and thrive.** This means urgently tackling barriers on renewable energy and energy efficiency, and phasing out finance for fossil fuels, e.g. by setting a portfolio emissions-reduction target in line with the Paris temperature limit.

- **Act urgently on financial intermediary exposure to coal.** Use the weight of IFI influence to clean up the wider financial sector and mobilize commercial banks to invest in the CVF renewable energy revolution, for example through issuing truly green bonds.⁶⁸
- Set targets to increase financing for clean cooking, off-grid, and mini-grid solutions that meet the needs of women and poor rural communities, to accelerate progress towards SDG 7. Involve women at all levels of energy project design, implementation and evaluation phases.
- Ensure that development policy operations help countries set the necessary conditions for a just energy transition towards renewable energy for all.
- **Establish a strategic dialogue with the V20.** Explore with the ministers of finance from CVF countries how to support their 100% renewable energy goals. Work with the champion countries first, and include CSOs and other stakeholders in the dialogue.

NOTES

- 1 V20. (2017). *V20 Ministerial Communiqué: Ministerial Dialogue IV of the Vulnerable Twenty (V20) Group*. Retrieved from <https://www.v-20.org/v20-ministerial-communication-ministerial-dialogue-iv/>
- 2 The CVF is convening world leaders for a Virtual Climate Leader's Summit in November 2018, led by the Marshall Islands as CVF Chair (<https://thecvf.org/events/2018-cvf-virtual-summit/>).
- 3 V20. (2017). *V20 Ministerial Communiqué*, op. cit.
- 4 Source: original data from the World Bank Group, ADB and AIIB websites, collected and categorized by Oil Change International (OCI). Database available at: <https://tinyurl.com/yblgrdxp>. By current energy portfolios we mean all projects, technical assistance and development policy loans approved between FY2010 and end FY2018. As most projects are implemented over a period of approximately 10 years, we take this time period as a proxy for current portfolios. Project classification e.g. as clean, fossil fuel or energy access follows OCI methodology available here: Oil Change International. Shift the Subsidies Methodology. <http://priceofoil.org/shift-the-subsidies-methodology/>
- 5 Multilateral Development Banks Joint Statement. (2017). *Together Major Development Finance Institutions Align Financial Flows with the Paris Agreement*. Retrieved from <https://www.worldbank.org/en/news/statement/2017/12/12/together-major-development-finance-institutions-align-financial-flows-with-the-paris-agreement>. Although a 1.5°C investment scenario does not currently exist, if, as the IPCC 1.5°C report shows, emissions must reach net zero by 2050, with near-term action being critical, then it is reasonable to conclude that investment in renewable energy and energy efficiency must urgently replace new investment in fossil fuels.
- 6 The V20 countries have set a goal to attain a significant increase in climate investment in their economies (\$20 billion by 2020). Climate Vulnerable Forum. (2015, November 30). *World's vulnerable open gateway to climate safe future at Paris* [press release]. Retrieved from <https://thecvf.org/worlds-vulnerable-open-gateway-to-climate-safe-future-at-paris/>
- 7 See endnote 4 for source. Figure 1 includes projects approved between July 2015 and July 2018.
- 8 The Bangladesh Power System Enhancement and Efficiency Improvement Project includes a transmission line to evacuate power from Rampal (Mongla) coal power plant towards Dhaka. See the ADB website: <https://www.adb.org/projects/49423-005/main#project-pds>. The 2018 Southwest Transmission Grid Expansion Project finances the accompanying substation and secondary transmission lines. It is also designed to serve the Chinese-funded Payra coal plant in south-west Bangladesh. See paragraphs 5 and 6 of the project Resettlement Plan: <https://www.adb.org/sites/default/files/linked-documents/51137-001-rpab.pdf>
- 9 Over 300 million people in Asian V20 countries lack access to clean cooking, and over 80 million people (many of the same people) lack access to electricity. World Bank 2016 figures. Retrieved from: <http://databank.worldbank.org/data/source/sustainable-energy-for-all/>
- 10 See endnotes 4 and 9. Figure 2 includes projects approved between July 2009 and July 2018.
- 11 Regulatory Indicators for Sustainable Energy (RISE). Retrieved from <http://rise.esmap.org>
- 12 ADB. (2017). *Sustainable and Inclusive Energy Program (Subprogram 2). Policy Matrix*. See Policy Action 6 under Pillar 2, p.4. Retrieved from <https://www.adb.org/sites/default/files/linked-documents/49043-002-sd-03.pdf>. One of the overall aims of the development policy loan is 'total sector investment in oil and gas increased to \$23bn, from a baseline of \$19bn'.
- 13 Unless specified, figures are for renewable energy as a percentage of power generated, and exclude large hydropower projects.

- 14 See: Government of Bangladesh. (2008). Renewable Energy Policy of Bangladesh. https://www.iea.org/media/pams/bangladesh/Bangladesh_RenewableEnergyPolicy_2008.pdf. The government has since set a renewable energy target of 3.1GW by 2021. <http://global-climatescope.org/en/policies/#/policy/5130>
- 15 Government of Bangladesh (2012) Vision 2021. Retrieved from: https://bangladesh.gov.bd/sites/default/files/files/bangladesh.gov.bd/page/6dca6a2a_9857_4656_bce6_139584b7f160/Perspective-Plan-of-Bangladesh.pdf
- 16 Current electrification and clean cooking rates for all countries profiles from World Bank. (2018). *Tracking SDG7: The Energy Progress Report*. p.48. Retrieved from https://trackingsdg7.esmap.org/data/files/download-documents/tracking_sdg7-the_energy_progress_report_full_report.pdf
- 17 NDCs for all countries are available here: <http://www4.unfccc.int/ndcregistry/Pages/Home.aspx>
- 18 IFC. (2016). *Climate Investment Opportunities in Emerging Markets*, p.50. https://www.ifc.org/wps/wcm/connect/51183b2d-c82e-443e-bb9b-68d9572dd48d/3503-IFC-Climate_Investment_Opportunity-Report-Dec-FINAL.pdf?MOD=AJPERES.
- 19 S. Hammer, World Bank Group presentation. *The NDC Partnership*, p.12. Retrieved from <https://www.thepmr.org/system/files/documents/PMR%20mtg%20--%20%20NDCP%20SF%20and%20the%20PMR%2018Mar17.pdf>
- 20 World Bank. (2016). Bangladesh – *Country partnership framework for the period FY16–20 (English)*. Washington, D.C.: World Bank Group. Retrieved from <http://documents.worldbank.org/curated/en/362231468185032193/Bangladesh-Country-partnership-framework-for-the-period-FY16-20>
- 21 ADB. (2017). *Bangladesh: Country Operations Business Plan (2018–2020)*. Retrieved from <https://www.adb.org/documents/bangladesh-country-operations-business-plan-2018-2020>
- 22 The 2020 and 2030 targets (which exclude large hydropower) are provided in the following: Government of Vietnam. (2016). *Revised Power Development Plan VII*. <http://gizenergy.org.vn/media/app/media/PDF-Docs/Legal-Documents/PDP%207%20revised%20Decision%20428-QD-TTg%20dated%2018%20March%202016-ENG.pdf>. The 2050 target (which includes large hydropower) is provided in: Government of Vietnam. (2015). *Renewable Energy Development Strategy up to 2030 with an outlook to 2050*. https://www.mzv.cz/public/1b/a6/7a/1810646_1462225_Strategy_on_Renewable_Energy_Decision_on_2068_ENG_2015_11_25.pdf
- 23 World Bank. (2018). *Tracking SDG7: The Energy Progress Report*. p.48. Retrieved from https://trackingsdg7.esmap.org/data/files/download-documents/tracking_sdg7-the_energy_progress_report_full_report.pdf
- 24 IFC. (2016). Op cit. For small hydropower, solar, wind and biomass. Based on the renewable energy targets in the Government's 2016 Revised Power Development Plan VII (see endnote 22).
- 25 World Bank (2016). *Vietnam - Systematic Country Diagnostic*. Retrieved from <http://documents.worldbank.org/curated/en/334491474293198764/Vietnam-Systematic-Country-Diagnostic>. In its Low Carbon Development Strategy for Vietnam, the World Bank estimates that up to 12 GW of new coal fired generation could be avoided through demand side energy efficiency measures.
- 26 World Bank. (2017). *Vietnam Country Partnership Framework FY18–FY22*. Retrieved from <http://documents.worldbank.org/curated/en/173771496368868576/Vietnam-Country-partnership-framework-for-the-period-FY18-FY22>. The CPF targets 490MW of renewable energy by 2018, which is <3% of the government's 19GW target for 2030 as set out in Vietnam's Revised Power Development Plan VII (see endnote 22).
- 27 ADB. (2017). *Viet Nam: Country Operations Business Plan (2018–2020)*. Retrieved from <https://www.adb.org/documents/viet-nam-country-operations-business-plan-2018-2020>. The technical assistance grant aims to support the government to reach its solar targets (<https://www.adb.org/projects/51092-002/main#project-pds>). The planned Central Power Solar Plant project was cancelled along with the planned energy policy loan, given concerns about government debt levels (email communication with ADB staff).
- 28 ADB (2017) *Pathways to Low Carbon Development in Vietnam*. Retrieved from <https://www.adb.org/publications/pathways-low-carbon-development-viet-nam>
- 29 E3G Green Finance report, forthcoming.
- 30 IEA (2017). *Energy Access Outlook 2017*, p.26. Retrieved from http://www.iea.org/publications/freepublications/publication/WEO2017SpecialReport_EnergyAccessOutlook.pdf. Women spend an average of 1.4 hours a day collecting firewood, and in South Asia, an average of four hours cooking every day when using traditional stoves.

- 31 World Bank. (2017). *Vietnam Country Partnership Framework FY18–FY22*, op. cit.
- 32 The Renewables Portfolio Standard Rules target is to restore the renewable energy share in the national energy mix to 35% in MWh by 2030 to 2040. Government of the Philippines Department of Energy. (2017). *Energy Annual Report 2017*, p35. https://www.doe.gov.ph/sites/default/files/pdf/transparency/annual_report_esar_2017.pdf
- 33 Philippines Statistical Authorities. *Philippines Statistical Yearbook 2017*. Retrieved from <https://psa.gov.ph/products-and-services/publications/philippine-statistical-yearbook>.
- 34 SE4ALL. (2017). *Understanding the Landscape: Tracking Finance for Electricity and Clean Cooking Access in High-Impact Countries*. Retrieved from: https://www.seforall.org/sites/default/files/2017_SEforall_FR2_ES.pdf
- 35 Climate Action Tracker. *Philippines*. Retrieved from <https://climateactiontracker.org/countries/philippines/>
- 36 UNEP / DBS (2017), *Green Finance Opportunities in ASEAN*, Retrieved from https://www.dbs.com/iwov-resources/images/sustainability/img/Green_Finance_Opportunities_in_ASEAN.pdf
- 37 ADB. (2017). *Philippines: Country Operation Business Plan (2018–2020)*. Retrieved from <https://www.adb.org/documents/philippines-country-operations-business-plan-2018-2020>
Philippines: Country Operation Business Plan (2018-2020)
- 38 ADB. (2018). *Philippines: The Philippine National Oil Company (PNOC) Batangas Liquefied Natural Gas Project*. Retrieved from <https://www.adb.org/projects/52107-001/main#project-pds>. The project is also due to include a new gas-fired power plant.
- 39 Bugalski, N. (2016). *Owning the Outcomes: Time to Make the World Bank Group's Financial Intermediary Investments More Accountable*. Oxfam. Retrieved from https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/bn-ifc-owning-outcomes-031016-en_0.pdf
- 40 IDI. (2018). *Broken Promises: The World Bank, International Investors and the Fight for Climate Justice in the Philippines*. Retrieved from <https://www.inclusivedevelopment.net/wp-content/uploads/2018/04/Philippines-Coal-Report.pdf>
- 41 Ibid.
- 42 Climate Scope. (2017). *Indonesia*. <http://global-climatescope.org/en/country/indonesia/#/enabling-framework>. S. Palma. (2018, 31 July). *Indonesia keeps faith with coal to meet growing energy demand. The Financial Times*. <https://www.ft.com/content/0fd3ed3e-89b9-11e8-afdd-da9960227309>.
- 43 World Bank (2018). *Tracking SDG7*, p.48, op. cit. SE4ALL identifies Indonesia as a country that – due to dedicated policy initiatives, and a switch in urban areas to liquefied petroleum gas – has made substantial progress recently.
- 44 Climate Action Tracker. *Indonesia*. Retrieved from <https://climateactiontracker.org/countries/indonesia/>. Climate Tracker's assessment is that Indonesia could reach its target with no additional effort.
- 45 <https://www.indonesia-investments.com/news/todays-headlines/indonesia-has-become-world-s-2nd-largest-geothermal-energy-producer/item8775?>
- 46 IFC (2016) Op cit
- 47 Netral English. (2018, August 18). *Many People Still Live in Darkness, Energy Minister Jonan Targets Electrification Ratio of 99.99 Pct*. Retrieved from <http://www.en.netralnews.com/news/business/read/23511/many.people.still.live.in.darkness..enrgy.minister.jonan.targets.electrification.ratio.of.9999.pct>
- 48 World Bank. (2015). *Indonesia – Systematic country diagnostic*. Retrieved from <http://documents.worldbank.org/curated/en/576841467987848690/Indonesia-Systematic-country-diagnostic-connecting-the-bottom-40-percent-to-the-prosperity-generation>
- 49 The three billionaires behind Indonesia's biggest coal company Adaro Group have combined assets of \$8bn. GlobeAsia. (2018). *150 Richest Indonesians*. Retrieved from <https://www.globeasia.com/cover-story/150-richest-indonesians-3/>. Earnings from their combined wealth are estimated at \$848m, using an annual interest rate of 10.6%. This rate corresponds to the growth rate of wealth of high-net-worth individuals in 2017, and is therefore taken as a proxy of the average rate of return on wealth for that year (See CapGemini's 2018 World Wealth Report: <https://www.worldwealthreport.com>). There are 100 million people in Indonesia without access to clean, modern cooking (about 20m households) and the cost of an LPG stove is around \$30 (an advanced biomass cookstove is cheaper). See the Clean Cooking Catalog: <http://catalog.cleancookstoves.org/stoves>. The interest this year on the wealth of these three billionaires is therefore more than enough to provide these households with either an LPG stove,

- or an advanced biomass stove. NB this does not include the cost of fuel, which is substantial in the case of LPG.
- 50 Renewable energy mini-grid systems have been shown to be similar to or cheaper than diesel-based systems. See Al-Saffar, A. (2017, December 19). *Commentary: Bringing electricity to all corners of Southeast Asia*. IEA. <https://www.iea.org/newsroom/news/2017/december/commentary-bringing-electricity-to-all-corners-of-southeast-asia.html>. However, stakeholders suggest that there is rent-seeking in the diesel supply chain, and also where the state utility (PLN) supplies both the diesel and contracts the power, incentives risk being misaligned (see next endnote).
- 51 IISD. (2018). *Missing the 23 Per Cent Target: Roadblocks to the development of renewable energy in Indonesia*. P.10. Retrieved from <https://www.iisd.org/sites/default/files/publications/roadblocks-indonesia-renewable-energy.pdf>
- 52 World Bank. (2015). *Country Partnership Framework for the Republic of Indonesia*. Retrieved from <http://documents.worldbank.org/curated/en/195141467986374707/pdf/99172-REVISED-World-Bank-Indonesia-Country-Partnership-Framework-2016-2020.pdf>. The World Bank's Country Partnership Framework targets 150MW of geothermal by 2020 – only about 3% of what is needed to meet the government's geothermal target for 2025, which currently implies adding 7.2GW. See a 2018 interview on The Business Year website with Yunus Saefulhak, Director of Geothermal, Ministry of Energy and Mineral Resources in the Indonesian government. The Business Year. (2018). *National target of 7.2GW of geothermal energy by 2025*. <https://www.thebusinessyear.com/indonesia-2018/yunus-saefulhak-director-geothermal-ministry-energy-mineral-resources/vip-interview..>
- 53 P. Bhandar, ADB Director of the Climate Change and Disaster Risk Management Division, quoted in I. Callaghan. (2017, March 31). *The ADB and climate change: a 2030 horizon, with sustainability and resiliency at the core*. Retrieved from: <http://ndci.global/a-2030-horizon-with-sustainability-and-resiliency-at-the-core/>
- 54 IDI. (2018). *Harmful Financial Intermediary Sub-Projects [Database]*. Retrieved from <https://airtable.com/shrAA2T8L2SRtqX5M/tbli4INbNgg79GsAL/viw42dnWqRhYFIAGb>. The IFC relationship with some of these banks has recently ended, but the map shows how (during the period they were IFC clients) the banks have backed coal. The research did not cover Indonesia, nor did it capture the entirety of the bank's loan books, only those deals for which information is available on the Thomson One and Bloomberg databases.
- 55 Ibid. Together, Axis Bank, HDFC, Yes Bank, Kotak Mahindra, IDFC and ICICI (and their subsidiaries) have supported NTPC (the coal developer behind Rampal coal plant in Bangladesh) by underwriting several billion dollars of bonds, providing hundreds of millions in loans, and buying shares. VietinBank, Crédit Agricole, and China Postal Savings Bank have collectively invested several billion dollars in Vietnam Electricity (EVN), arranged hundreds of millions of EVN loans, and underwritten bonds worth hundreds of millions for one other company developing coal plants in Vietnam. RCBC and BDO Unibank participated in approximately \$13bn in financial support for the Philippines coal sector after becoming IFC clients.
- 56 Many commercial banks have policies that they will not fund coal projects through their project finance portfolios (e.g. Standard Chartered, <https://www.sc.com/en/explore-our-world/here-for-good-means-saying-no-to-coal/>). Other banks have committed not to fund companies that are exposed to coal above a certain threshold (e.g. ING Bank's commitment to not fund utility companies that are more than 5% invested in coal, <https://www.ing.com/Newsroom/All-news/ING-further-sharpens-coal-policy-to-support-transition-to-low-carbon-economy.htm>).
- 57 There are many standards for 'green bonds' – all of them voluntary – and so their integrity depends on the issuer. For example, PNB Bank found that 45% of emerging economy green bonds would not meet their criteria. See, for example: Bird, M. and Dalal, M. (2018, August 19). *Environmentally Unfriendly Deals Highlight Gray Areas for 'Green Bonds'* [paywall]. <https://www.wsj.com/articles/environmentally-unfriendly-deals-highlight-gray-areas-for-green-bonds-1534703401?tesla=y&mod=e2tw>. The green bonds the IFC issues itself have been rated 'middle green' by the independent, not-for-profit ratings group CICERO. See: CICERO. (2015). *'Second Opinion' on IFC's Green Bond Framework*. <https://www.ifc.org/wps/wcm/connect/bcee33804ab6827f8003cde9e68d4b0b/IFC+Final+version+2nd+Opinion+November+23.pdf?MOD=AJPERES>
- 58 'It is time to act strategically to advance truly transformational programs that redesign nothing less than the investment agenda of the world economy.' V20 Communiqué. (2017), op. cit.
- 59 Chawla, K. and Ghosh, A. (2018, March 20). *The sun shines brighter if the risks don't cloud it. PV Magazine*. <https://www.pv-magazine.com/2018/03/20/the-sun-shines-brighter-if-the-risks-dont-cloud-it/>; IRENA. (2018). *Scaling up Renewable Energy Investment in Emerging Markets: Challenges, risks and solutions*. http://coalition.irena.org/-/media/Files/IRENA/Coalition-for-Action/Publication/Coalition-for-Action_Scaling-up-RE-Investment_2018.pdf; and World Bank and the Climate Investment Funds. (2011). *Financing Renewable Energy: Options for developing financing instruments using public funds*. http://siteresources.worldbank.org/EXTENERGY2/Resources/SREP_financing_instruments_sk_clean2_FINAL_FOR_PRINTING.pdf.

- 60 IISD. (2018). *Missing the 23 Per Cent Target*, op. cit, p.7. Regulations 12/2017 and 50/2017 cap renewable power purchase prices at 85% of the local average generation cost.
- 61 Continued coordination is needed to ensure that IDCOL's impactful solar home system programme (and new initiatives in solar irrigation and mini-grids) complement, and are not harmed by, Bangladesh Rural Electrification Board's fast-moving grid electrification efforts. See: World Bank. (2018b). Project paper on Additional Financing for RERED II. P10 <http://documents.worldbank.org/curated/en/568271523584915573/pdf/BD-Project-Paper-03222018.pdf>
- 62 Natural Resources Defense Council research tracking G20 public investment in 2017 and 2016. Chen, H. and Lerner, N. (2018, February 8). *G20 Countries' Public Coal Financing Reaches Five-Year High*. NRDC expert blog. <https://www.nrdc.org/experts/han-chen/g20-countries-public-coal-financing-reaches-five-year-high>
- 63 Figures for Vietnam available on p.46 of GreenID. (2018). *Analysis of Future Generation Capacity Scenarios for Vietnam*. Retrieved from: http://en.greenidvietnam.org.vn/app/webroot/upload/admin/files/BCN_Eng_Final_compressed.pdf. The Philippines imports 75% of its current needs: Republic of the Philippines, Department of Energy. (n.d.). *Coal to top 55% of PH power mix by 2027*. <https://www.doe.gov.ph/energist/coal-top-55-ph-power-mix-2027>. The planned coal plants in Bangladesh are expected to be powered with imported coal, with Indonesia a key supplier. See Rasel, A.R. (2018, January 21). *Little progress in large coal-fired power plants*. *Dhaka Tribune*. <https://www.dhakatribune.com/business/2018/01/21/little-progress-large-coal-fired-power-plant-projects>.
- 64 This is illustrated by a recent example from Indonesia: Jong, H.N. (2018, August 28). *Graft and government policy align to keep Indonesia burning coal*. Mongabay. <https://news.mongabay.com/2018/08/graft-and-government-policy-align-to-keep-indonesia-burning-coal/>. In the Philippines, commissioners at the Energy Regulatory Commission have been suspended for delaying a competitive bidding process, which favoured one company (Meralco) that was able to agree 'midnight deals' with seven coal power suppliers. Rivera, D. (2018, January 3). *YearEnder: The quest for lower power rates continues*. <https://www.philstar.com/business/2018/01/03/1773975/yearender-quest-lower-power-rates-continues>
- 65 Figures for Bangladesh AIIB project taken from S. Kartha. (2017). *The AIIB's Energy Opportunity: Background Research Report*. Retrieved from (https://d1tn3vj7xz9fdh.cloudfront.net/s3fs-public/file_attachments/rr-aiib-energy-opportunity-background-research-210617-en.pdf). This same methodology was used to calculate impact costs for a) the Mariveles expansion, an example of a coal plant backed by IFC financial intermediary banks (in this case RBCB and BDO Unibank in the Philippines). Lifetime emissions (209.552Mt) taken from *Global Coal Plant Tracker*, July 2018, CoalSwarm. Total project cost (\$1bn) taken from SourceWatch. *Dingin power station* https://www.sourcewatch.org/index.php/Dingin_power_station; and b) the proposed Riau gas power plant in Indonesia, due to be financed by IFC and ADB. Estimated project cost (\$287m) and annual emissions (0.919Mt Co2-eq) taken from IFC (<https://disclosures.ifc.org/#/projectDetail/SII/39879>). An operating lifetime of 30 years is assumed.
- 66 WWF and OCI. (2015). *Hidden Costs: Pollution from Coal Power Financed by OECD Countries*. Retrieved from <http://priceofoil.org/content/uploads/2015/11/Hidden-Costs-of-Coal-Economic-Costs-of-OECD-Coal-Finance.pdf>, p. 3.
- 67 See: ICSC, (2017, 19 December). *Policy group lauds Duterte signing of tax reform law including coal*. [press release]. <http://icsc.ngo/policy-group-lauds-duterte-signing-tax-reform-law-including-coal>
- 68 See endnote 57.

OXFAM

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Oxfam IBIS (Denmark) (www.oxfamibis.dk)

Oxfam India (www.oxfamindia.org)

Oxfam Intermón (Spain) (www.oxfamintermon.org)

Oxfam Ireland (www.oxfamireland.org)

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Oxfam Mexico (www.oxfammexico.org)

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