Public and Private Financing Opportunities for Just Energy Transitions

2nd Australia-Indonesia Energy Transition Policy Dialogue

9 March 2023: 10am WIB | 2pm AEDT Overview & agenda (pre-read)







With support from



Welcome to the second meeting of the Track 1.5 Australia-Indonesia Energy Transitions Policy Dialogue, convened by the Centre for Policy Development and Climateworks Centre.

The Dialogue is an informal forum for collaboration between policymakers, regulators, business and non-government experts from Australia, Indonesia and the region to discuss policy ideas and areas of potential collaboration on energy transition issues.

After a successful kick off meeting in December 2022, we are delighted to convene again in March 2023 to focus on public and private climate financing. All Dialogue meetings will be invitation only and held under the Chatham House Rule of non-attribution.

Participants are encouraged to bring their curiosity, creativity and collegiality to the policy challenges confronting both countries, and use the roundtables to test ideas, gain insight and build collaboration.

The Dialogue will not be about admiring the problem, but about developing practical, workable solutions to the energy challenges facing Australia and Indonesia. As such, topics for discussion at these meetings will be guided by participants.

This initiative builds on collaborative work between CPD, Climateworks Centre, the Purnomo Yusgiantoro Center (PYC), the Institute of Essential Services Reform (IESR), Indonesia Research Institute for Decarbonization (IRID) and the International Institute for Sustainable Development (IISD), including co-convening a successful <u>G20 Seminar Series</u> with the Energy Transition Working Group in Jakarta in July 2022.

Dialogue 2: Public and Private Financing Opportunities for Just Energy Transitions



Date: Thursday 9 March 2023



Time: 10.00-12.00 WIB / 14.00-16.00 AEDT



Location: Join by Zoom at this link:

https://us02web.zoom.us/j/84882739875?pwd=Q0

ZKZktOYzFmMHZvd25iZmhCS1Zndz09

Meeting ID: 848 8273 9875

Passcode: 321426

OR

Join in person in Jakarta at:

BCG Jakarta Office

Sampoerna Strategic

North Tower, 19th Floor

Jl. Jend. Sudirman Kav. 45-46

To inform our Dialogue discussion, we invite you to share your brief thoughts on 4 questions at the following link by **Friday 3 March**:

https://www.113.vovici.net/se/13B2588B5BB47C24

Pre-session survey (5 minutes)

Roundtable 2 | Public and Private Financing Opportunities for Just Energy Transition Provisional agenda and objectives

Agenda Item	Objective	Time (WIB)	Time (AEDT)
WELCOME & INTRODUCTION Outline the agenda	 Brief recap of December roundtable Outline core objectives of this session and framing the opportunity 	10:00am	2:00pm
SESSION 1: FINANCE OPPORTUNITIES Outline the opportunities presented by public and private financing in the just energy transition space	Plenary discussion on opportunities in public and private financing for just energy transition: 1. Energy Transition Country Platform (PT SMI) 2. Australia-Indonesia Climate & Infrastructure Partnership (DFAT, Jakarta)	10:10am	2:10pm
	 Moderated discussion covering: Where is there room for improvement in the current finance landscape? Is the problem insufficient financing, or financing not being sent to the right areas? Are there instruments that are currently under-utilised? 	10:30am	2:30pm
SESSION 2: IDEATION Collectively come up with concrete ideas for where public and private financing can add the most value in just energy transition	Using the results from the pre-meeting survey, hold a plenary discussion to delve into specific areas and opportunities where public and private financing would be most valuable and catalytic, eg: Types of technologies or initiatives that are ready for investment currently; Stages of the investment value chain (e.g., funding feasibility studies and business cases, early stage funding etc.)		3:10pm
SESSION 3: NEXT STEPS	Overview of next steps, role of the Dialogue going forward, ideas for next meeting & concrete work to take forward	11:50am	3:50pm
SUMMARY & CLOSE	Summary of today's conversation & recap of next steps	End 12pm	End 4pm

Roundtable 2: Participant List

In Jakarta

Arief Rosadi	Climate Diplomacy Coordinator, Institute for Essential Services Reform	
Alexa Reith	Second Secretary (economic), Australian Embassy ir Jakarta	
Bambang Widianto (TBC)	Member of Global Council for SDGs	
Donna-Jean Nicholson	Special Adviser on International Economic Policy, Coordinating Ministry for Economic Affairs	
Evita Legowo	Senior Fellow, Purnomo Yusgiantoro Centre	
Gigih Udi Atmo (TBC)	Director of Energy Conservation, Ministry of Energy and Mineral Resources	
Guntur Sutiyono	Country Lead - Indonesia, Climateworks Centre	
Hendra Sinadia	Executive Director, Indonesia Coal Mining Association (APBI-ICMA)	
Lucky Lontoh	Country Manager - Indonesia, International Institute for Sustainable Development (IISD)	
Kamia Handayani (TBC)	Executive Vice President Energy Transition and Sustainable, PT. PLN (Persero)	
Massita Ayu Cindy	Researcher Coordinator, Purnomo Yusgiantoro Centre	
Moekti Handajani Soejachmoen	Executive Director, Indonesia Research Institute for Decarbonisation (IRID)	
Muhammad Yusrizki	Head of Permanent Committee for New and Renewable Energy, Indonesian Chamber of Commerce and Industry	
Pradana Murti	Director of Risk Management, PT Sarana Multi Infrastruktur (SMI)	
Prahoro Nurtjahyo	Head of Human Resources, Ministry of Energy and Mineral Resources	

In Jakarta

Ruddy Gobel	Senior Policy Adviser, Centre for Policy Development (CPD)	
Satya Widya Yudha (TBC)	Member, National Energy Council of Indonesia	
Scott Robinson	Development Cooperation, Australian Embassy in Jakarta	
Tim Stapleton	Minister-Counsellor (Economic, Infrastructure and Investment), Australian Embassy in Jakarta	
Widhyawan Prawiraatmadja	Senior Energy Expert, Lecturer at School of Business and Management, Bandung Institute of Technology	
Yudo Priiadi (TBC)	Expert Staff to the Minister of Energy and Mineral Resources, Ministry of Energy and Mineral Resources	

Online

Agung Marsallindo	Energy Transformation Officer, Institute for Essential Services Reform
Andrew Hudson	CEO, Centre for Policy Development
Anjali Viswamohanan	Director of Policy, Asia Investor Group on Climate Change
Anna Skarbek	CEO, Climateworks Centre
Carla de Campo	Director Government Relations Global External Relations Acting Director Policy and Research, IFM Investors
Ed Lewis	Managing Director, Macquarie Group
Guy Debelle	Board Member, Fortescue Future Industries
James Bowen	Policy Fellow, Perth USAsia Centre

Online

John Ward	Research Director of the Energy Systems Research Program, Commonwealth Scientific and Industrial Research Organisation (CSIRO)	
Judy Anderson	Vice President, Australia Indonesia Business Council	
Larissa Taylor	Director, Savoir Consulting , Western Australian President, Australia-Indonesia Business Council	
Luke Brown	Head of Engagement and Partnerships, Climateworks Centre	
Michael Buckley	Acting Director, Climate Change Mitigation and Investment Section, Climate Change and Sustainability Division, Department of Foreign Affairs and Trade	
Mila Cerecina	Executive Director, Pollination	
Monica Bae	Director of Investor Practice, Asia Investor Group on Climate Change	
Peter Onorato	Office of the Ambassador for Climate Change, Department of Foreign Affairs and Trade	
Sek-Loong Tan	Partner, Boston Consulting Group	
Sid Chakrabarti	Director, Indonesia Development and Performance, Department of Foreign Affairs and Trade	
Philip Gass	Lead, Transitions, International Institute for Sustainable Development (IISD)	
Simon Roz	Director, International Net Zero Branch, Department of Climate Change, Energy, the Environment and Water	
Siswo Pramono	Indonesian Ambassador to Australia, Ministry of Foreign Affairs	
Steven Wright	Director for Energy and Climate Change, Business Council of Australia	

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Brief summary of the Energy Transition Mechanism Country Platform

Background



Launched at G20 Indonesia 2022

Tasked with deploying a range of traditional and innovative financing instruments

PT Sarana Multi Infrastruktur (PT SMI) assigned as the implementing agency

- PT SMI is a state-owned enterprise overseen by Ministry of Finance.
- Extensive experience lending to commercial and public infrastructure projects
- Currently only Green Climate Fund Accredited Entity in Indonesia as a Direct Accredited Entity

Key focus



Current focus for early stages of the ETM is the early retirement of coal-fired power plants (CFPP)

Simultaneous development of renewable energy

- Increasing clean energy in the energy mix
- Renewable energy technology support

Financing



Blended finance sources:

- Government of Indonesia
- Commercial / INA Sovereign Wealth Fund
- Climate investment funds, development finance institutions

Mechanism provides blended finance to energy transition projects by PT PLN and Independent Power Producers through:

- Low-cost refinancing
- Commercial loans
- Technical assistance
- De-risking
- Equity

Brief overview of Australia-Indonesia Climate & Infrastructure Partnership

- Climate and Infrastructure Partnership between Australia and Indonesia for AUD \$200 million over five years, to be delivered through Australia's development assistance program.
- Announced by Prime Minister Albanese and President Joko Widodo at the Indonesia-Australia Annual Leaders' Meeting in Bogor on 6 June 2022.
- The partnership is currently in the design phase, with content being developed between officials. It will be launched once mutually agreed.

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Summary

Access to climate financing is particularly challenging for lower-income countries — many are dependent on public financing, with domestic development finance institutions playing a key role as they expand their climate finance ambitions.

Increasing private sector investment in climate and energy transition in lower-income countries in our region is a critical priority, given the size of the climate financing gap today and the volume of potential private financing available.

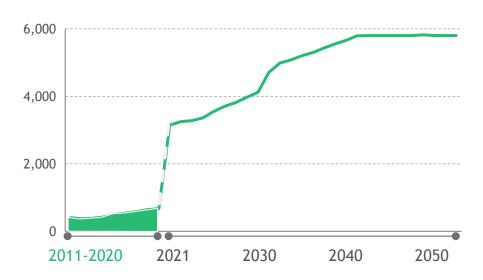
Within South-East Asia, unlocking private financing will require addressing a number of key constraints and challenges, including regulatory challenges, financial and market barriers and capacity gaps. Investors have highlighted that complex procedures and an inability to appropriately value assets are the two biggest barriers to private financing.

In addition to addressing these challenges in the enabling environment for financing, there is a vital role for public financing to play as a catalyst for private sources of funding. This catalytic financing can help clear hurdles such as unattractive risk-return profiles, or investments that on their own are sub-scale for private finance. To play a catalytic role, public sources of funding need to be utilised through an innovative range of financing instruments that are fit-for-purpose for projects and the barriers they face.

Access to financing is particularly challenging for lower-income countries

Current spending on climate action is inadequate for 1.5°C pathway

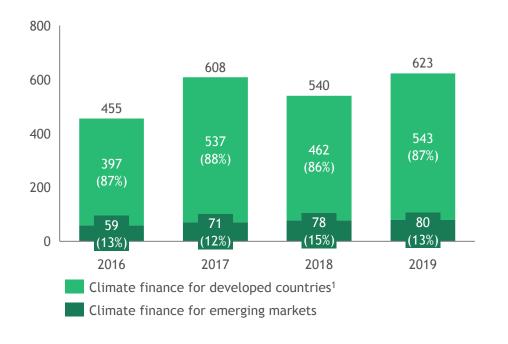
Global current climate finance flows vs. estimated annual needs up to 2050 to remain under 1.5° C (\$Bn)



Insufficient climate finance driven by barriers such as immature market structure and lack of large bankable projects

While needs for climate finance in emerging markets remain unmet

Historical climate finance (\$Bn)

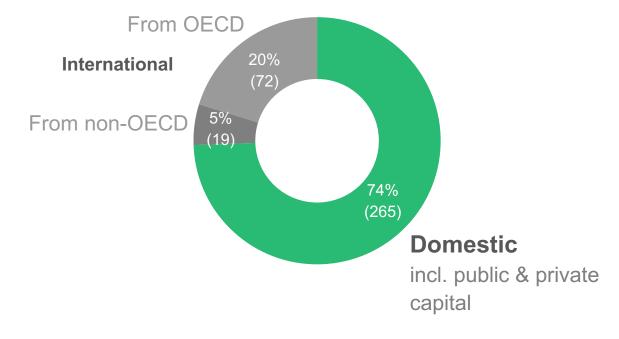


^{1.} Other climate finance computed by deducting climate finance for developing countries from total climate finance as provided by CPI Source: CPI; OECD, Germanwatch

Many lower-income economies dependent on public financing. Domestic DFIs play a key role

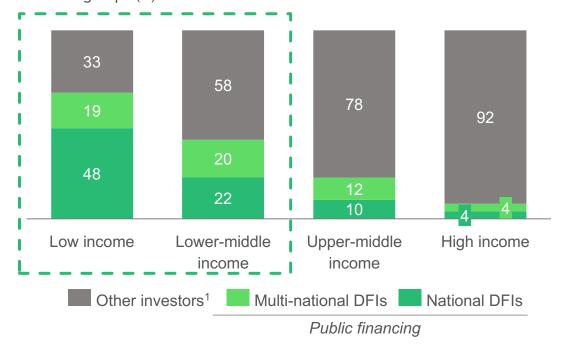
74% of climate finance to non-OECD countries comes from domestic sources

Global climate finance to non-OECD countries, Ø 2017-2018 (\$bn)



Clean energy asset finance in lower-income economies is dependent on public financing

Cross-border clean energy asset finance by DFIs across country income groups (%)



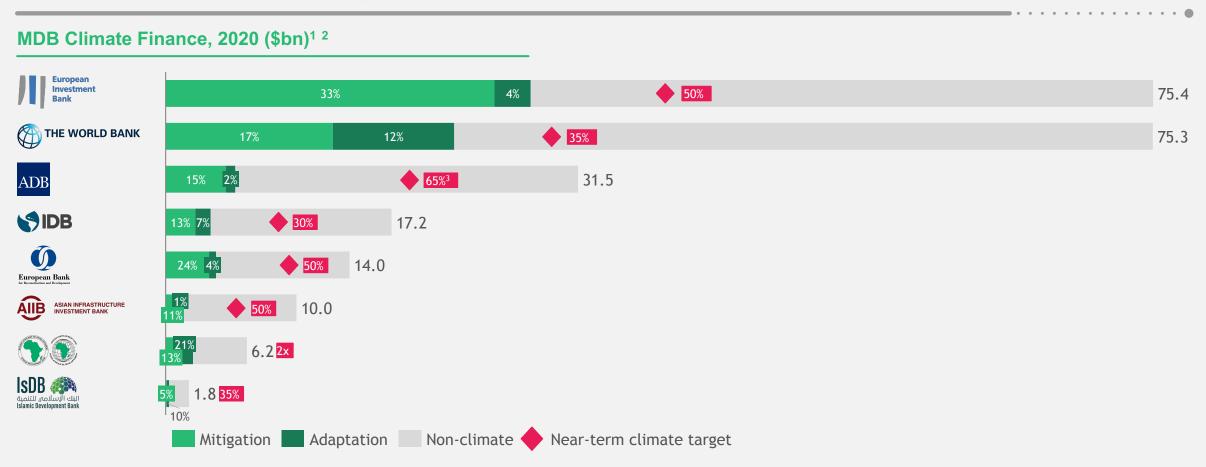
^{1. &}quot;Other investors" is predominantly made up of private investors, incl. project developers, utilities, private equity, and commercial banks.

Note: Includes renewable energy generation projects, smart metering, and energy storage projects. World Bank 2020 fiscal year country classification.

Source: CPI - Global Landscape of Climate Finance 2019, CFLI Financing the Low-Carbon Future (2019), BNEF, BCG analysis.

Climate finance is still a small part of Multilateral Development Bank investments, but their ambition is growing

MDB climate finance is set to grow as they move toward their near-term targets



There are four main priorities for climate finance:



Increase private sector investment

Essential given amount of assets managed by the private sector¹

Including strengthening GFANZ, developing carbon markets, increasing blended finance



Increase domestic public sector investment

Needed both within developing and developed countries

Including developing regulations and supervisory tools, increasing share of non-debt instruments



Increase public developeddeveloping countries financing

Crucial given the insufficient amount of funds being committed

Including the \$100Bn goal set in COP15 and not achieved



Increase share of adaptation finance

Key given the rising importance of adaptation vs. low share of funds committed

Heightened focus for the private sector given almost nonexistent adaptation flows (1 out of \$310 billion in 2019-20²)

^{1.} Over \$210Tn according to the Green Climate Fund 2. Refers to 2-year average, since CPI uses 2-year averages to smooth out fluctuations in data. \$1Bn committed to adaptation from the private sector, out of the total \$310Bn by private sector Source: CPI; Green Climate Fund (GCF); BCG analysis

As Southeast Asia's clean energy investment ecosystem matures, various external and internal financing pressures must be addressed



Regulatory challenges

- Unclear legal and regulatory frameworks, including non-bankable power purchase agreements (PPAs) and weak fead-in tariff (FiT) pricing, limit investment in ASEAN countries
- Administrative barriers, such as the long and opaque process of PPAs, add to the challenge
- The lack of official targets for renewable energy and unclear guidelines for grid interconnection are also significant issues



Financial & market barriers

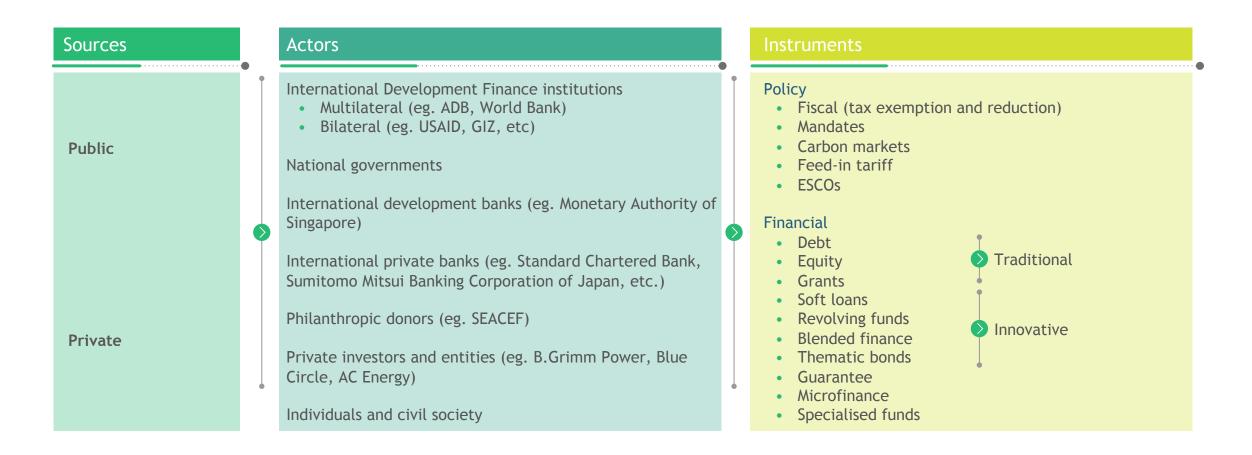
- Domestic markets are not yet mature, with limited financial instruments and high perceived risk associated with renewable energy
- The limited private sector equity funding makes it challenging for private investors to accumulate a portfolio of commercially viable projects
- A lack of know-how and trust in innovative financial schemes, such as green bond markets



Capacity gaps

- Local financial institutions cannot handle technically complex projects, leading to limited investment beyond solar and wind
- Domestic banks do not have capacity for processing green credit appraisals and lack understanding of the green investment market and credit risk
- Many international financial institutions have complex requirements which are challenging for less experienced local developers to deal with

In order to catalyse action in the region's clean energy ecosystem, nations must encourage a shift in the balance of funds towards private actors



Investors indicate that complex procedures and an inability to appropriately value assets are the two biggest barriers to private financing

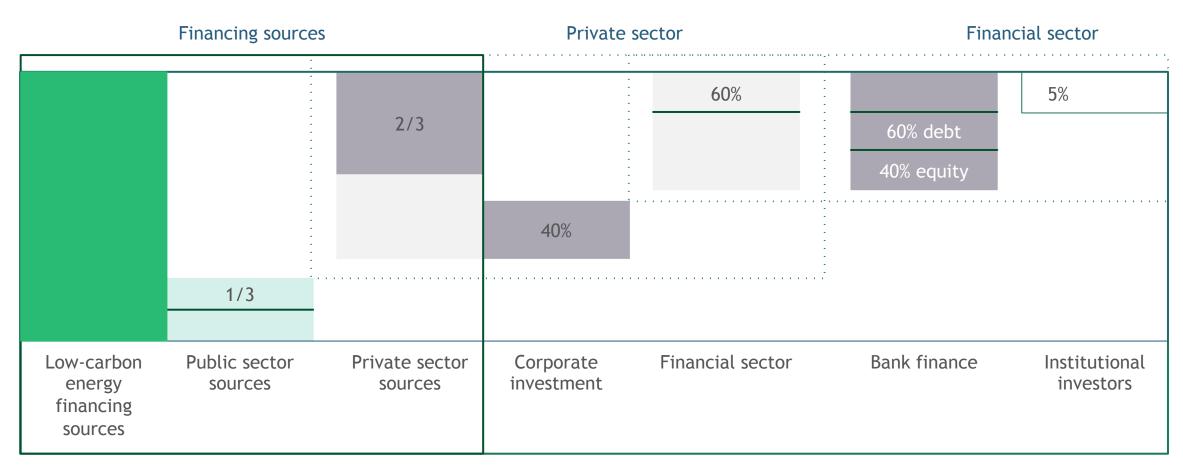
"What do you perceive as barriers to receiving private finance and bank loans?" (Respondents could choose multiple answers)

Category	Obstacles	ASEAN	ASEAN+3	ASEAN +6-Mongolia and HK
Policy	Changing policies	56%	45%	50%
	Complex procedures	28%	27%	29%
Institutional	High initial investment cost	50%	45%	50%
	Longer recovery period	50%	45%	46%
	High collateral requirement	44%	45%	46%
	Insufficient credit and maturity	28%	27%	25%
	Lack of capacity to value assets	17%	14%	13%
Market	Currency risk	33%	32%	29%
	Insufficient profits	33%	32%	29%
	Unpredictable cash flows	28%	23%	25%
	Non-favorable interest rates	28%	23%	25%
	Rising interest rates	28%	23%	21%
	Technology advancement risks	22%	18%	17%
	Unstable consumer market	11%	9%	13%

Source: Ed. Susantono, B.; Zhai, Y.; Shrestha, R., and; Mo, L., "Financing Clean Energy Development, Vol. 1, Asian Development Bank, July 2021; ASEAN = Association of Southeast Asian Nations, HK = Hong Kong, China.

There are significant opportunities across banking and institutional investors to catalyse low-carbon energy solutions

Illustrative landscape of low-carbon financing in Asia



Five archetypes of investment barriers in climate infrastructure that public investments can address:



Unproven or immature markets

- Market failure: eg. carbon markets not properly set up
- Ambiguity: inconsistent ESG data across companies. Lack of understanding of transition pathways, financial products and solutions



Sub-scale investments

 Many projects are too small for larger private sector investors and lack consistency in preparation, execution and documentation, increasing the cost of capital and difficulties in investing



Unattractive riskreturn profile

Risky investments
 because the return is
 too low or too
 uncertain, driven by
 construction risks, off taker / development
 risk, regulatory /
 currency risks



Inherent lower returns

- Revenues need to be subsidised
- Climate change benefits (avoided losses / ES benefits) not factored in

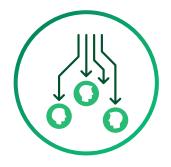


No return

- Financial disincentives (eg. higher return on deforestation than afforestation)
- Climate benefits not monetised

^{1.} For "no return" sectors, public investments unlikely to catalyse private sector investment - instead, policy / regulation is needed Source: Climate Policy Initiative, Climate Finance Leadership Initiative, expert interviews, BCG analysis

Public investment has potential to address barriers to private investment



Unproven or immature markets

 Provide direct investment (concessional or commercial) to demonstrate viability



Subscale investments

- Build financing facilities aggregating smaller projects into one opportunity
- Resort to securitization



Unattractive riskreturn profile

- Provide loan/guarantees/ first loss
- Provide political risk insurance
- Resort to local currency hedges



Inherent lower returns

- Provide subsidies
- Provide green
 bonds (issued by
 DFIs/public sector,
 catalyzing private
 capital)



No return

 Provide grants, as this type of project is not likely to capture private investment¹

^{1.} For "no return" sectors, public investments unlikely to catalye private sector investment - instead, policy/regulation is needed Source: Climate Policy Initiative; Climate Finance Leadership Initiative; Expert interviews

Five archetypes of investment barriers and how catalytic public finance can address them

Archetype



Unproven or immature markets



Sub-scale investments



Unattractive risk-return profile



Inherent below-market rate returns



No return

Barriers to investment

- Concerns about commercial viability of sector in given market
- Projects too small-scale for larger investors, leading to high transaction cost
- Construction risks
- Off-taker / development risk
- Regulatory / currency risks
- Revenues need to be subsidised
- Climate change benefits (avoided losses / ES benefits) not factored in
- Financial disincentives (eg. higher return on deforestation than afforestation)
- Climate benefits not monetised

Catalytic finance instruments

- Direct investment (concessional or commercial) to demonstrate viability
- Financing facilities aggregating smaller projects into one opportunity
- Securitisation
- Loan / guarantees / first loss
- Political risk insurance
- Local currency hedges
- Subsidies
- Green bonds (issued by DFIs / public sector, catalysing private capital)
- Grants¹

Typical sectors

- Large scale renewables
- Energy efficiency
- Clean transport
- Distributed energy generation
- Energy efficiency
- All (in emerging economy context)
- Public transport
- Climate resilient infrastructure
- Agr. adaptation
- Forest & land-use
- Agricultural adaptation

^{1.} For "no return" sectors, public investments unlikely to catalye private sector investment - instead, policy / regulation is needed Source: Climate Policy Initiative, Climate Finance Leadership Initiative, expert interviews

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Case study on successful partnership:

Australia-Indonesia Partnership on Poverty Reduction

Summary

The National Team for Accelerating Poverty Reduction (TNP2K) was established in 2009 by Vice President Boediono, housed within the Office of the Vice President. Its role is to develop policy options and oversee coordination and implementation of programs to alleviate poverty.

Partnership between Australia and Indonesia helped to establish a **Poverty Reduction Support Facility**, led by a Steering Committee of TNP2K and DFAT.

The Support Facility allowed the TPN2K team to:

- Hire professionals with competitive remuneration
- Finance evidence-based policy ideas through research and piloting
- Flexibly finance fast-moving priorities
- Creating models of new policies through policy exercises
- Conduct high-level advocacy to ensure buy-in from high level policy makers
- Follow national level initiatives down to the local level
- Provide implementation assistance and monitoring and evaluation

Factors identified that contributed to success

- Support and direction from the highest leadership (Vice President as a champion)
- Strong management, less bureaucracy, and support of highly qualified staff
- Flexible funding support, allowing professional payroll and faster procurement

Case study continued

Impact

The Partnership also enabled the team to prepare a range of innovations and policy tools used by the Indonesian Government, including:

- Lifelong social protection strategy for all, as a roadmap for the development of inclusive social protection programs in the future
- A self-updating mechanism as a dynamic model to keep the database updated
- Public spending analysis tools to assist local government in planning & prioritisation
- Policy innovation to improve teacher performance and accountability
- Partnerships between government and business for poverty reduction
- Innovative distribution of social assistance and subsidies using biometric IT apps.

During the partnership, a wide range of poverty reduction policy changes and reforms were launched, including:

- Introduction of targeted social protection policies through the provision of a unified database for poverty alleviation
- Village law transformation
- Improved unconditional cash transfer program to support 2011 fuel subsidy reform
- Launching of the Prosperous Family Card, Healthy Indonesia Card and Smart Indonesia Card in 2014, as part of the Jokowi-JK Government's policy to shifting fuel subsidies by expanding social assistance to the poor;
- Transformation of the rice for the poor program using a non-cash distribution mechanism, which later became the standard for distributing aid and subsidies to the community.
- Electricity subsidy reforms, which were able to increase the accuracy of targeting and more than IDR 21 trillion in the state budget.

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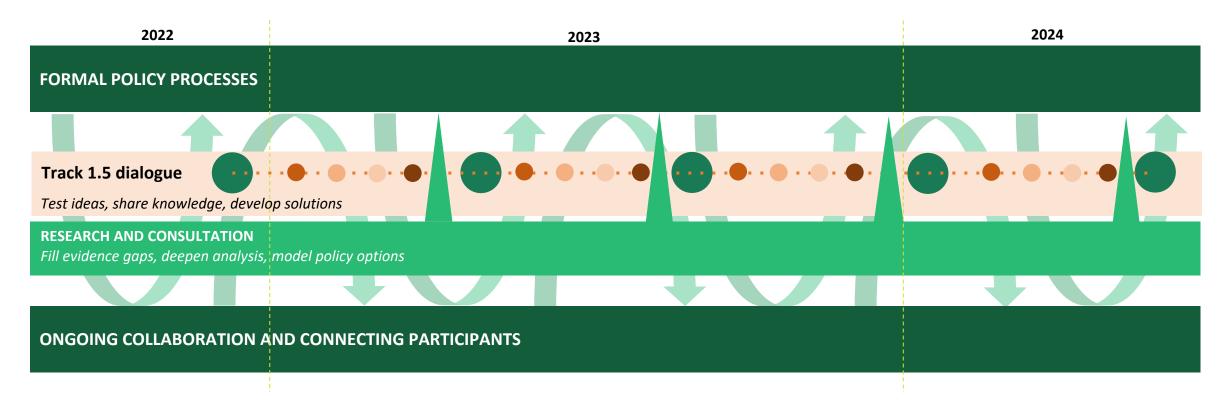
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Next steps for the dialogue

How does the Australia-Indonesia Energy Transition Policy Dialogue work?



Next steps for the dialogue

- Discrete pieces of research to fill evidence gaps
- Establish smaller working groups to take forward specific proposals or work between meetings
- Engage with ASEAN during Indonesia's role as Chair in 2023 and maintain momentum from last year's G20 Presidency
- Convene a third Energy Transition Policy Dialogue later in the year

We welcome your active engagement in the Dialogue. Please don't hesitate to be in touch with ideas or suggestions for future priorities.