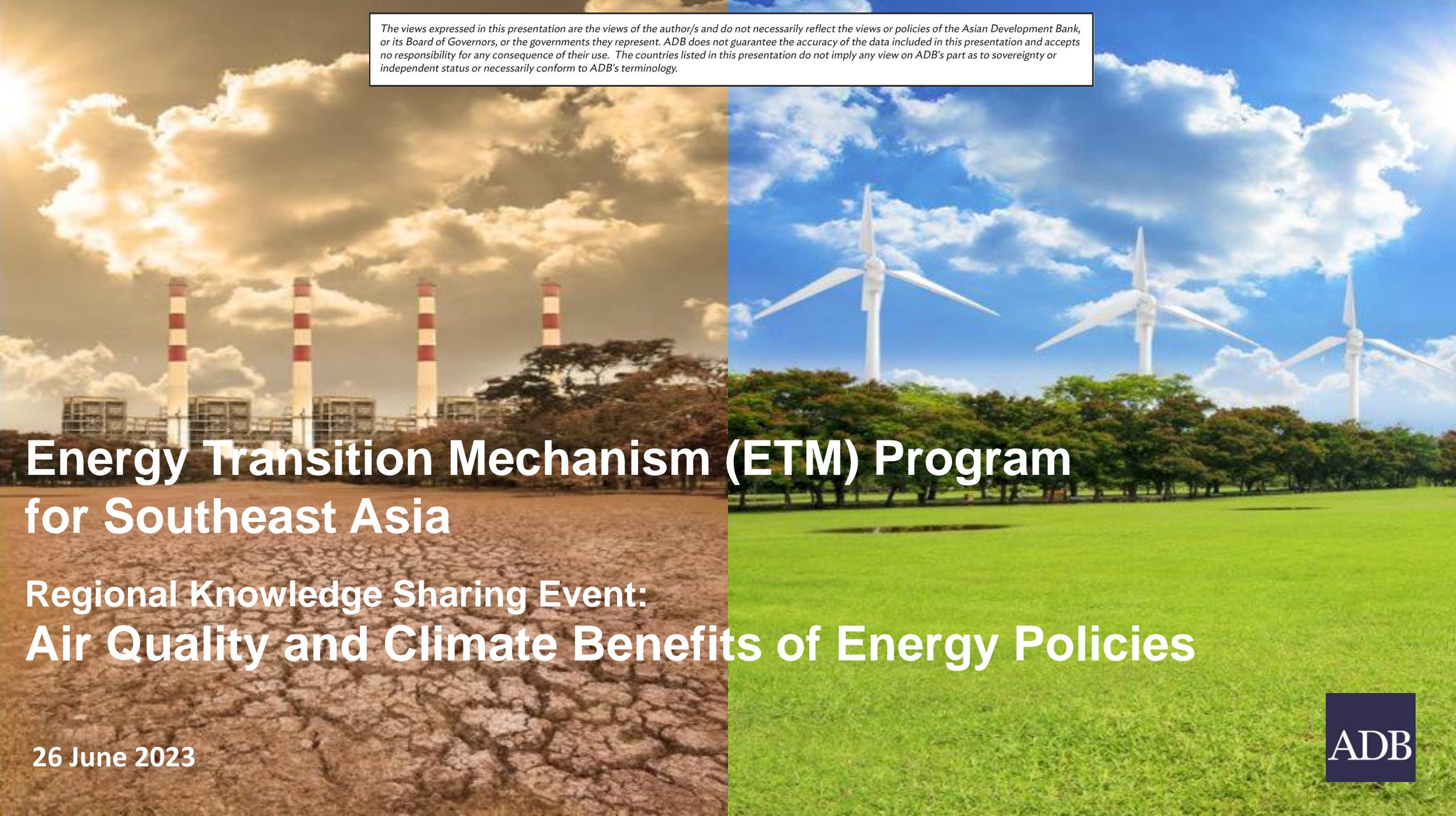


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Energy Transition Mechanism (ETM) Program for Southeast Asia

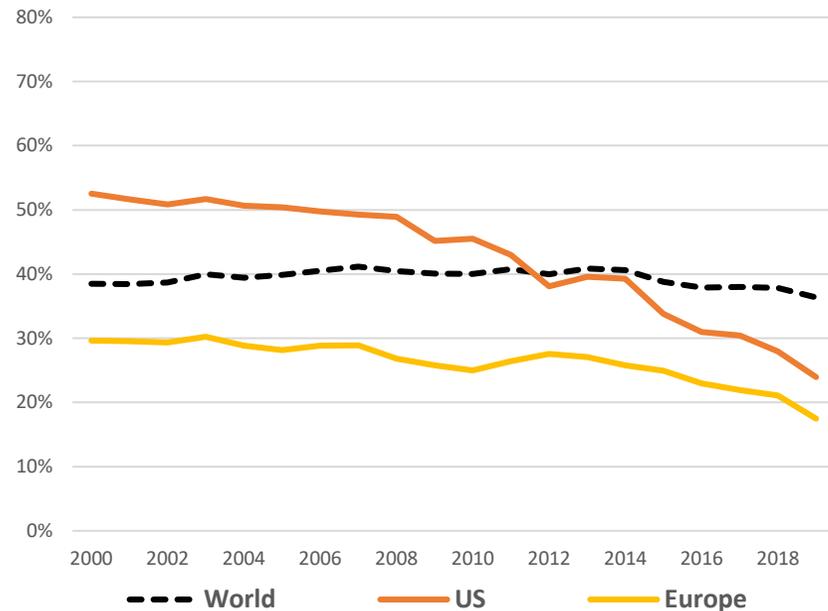
Regional Knowledge Sharing Event: Air Quality and Climate Benefits of Energy Policies

26 June 2023

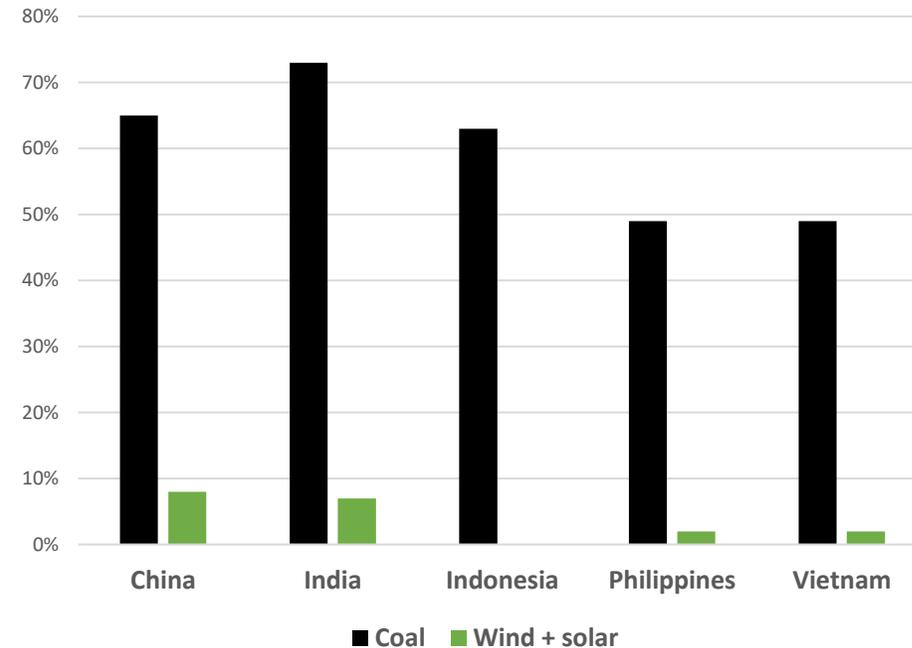
ADB

Coal-fired electricity must drop, but remains significant in developing Asia

Share of coal-fired power generation dropped in Europe and the US...



...but remains very high in Asia (2019)



Large-scale solution needed to simultaneously and rapidly decarbonize and build up clean energy in Asian developing countries.

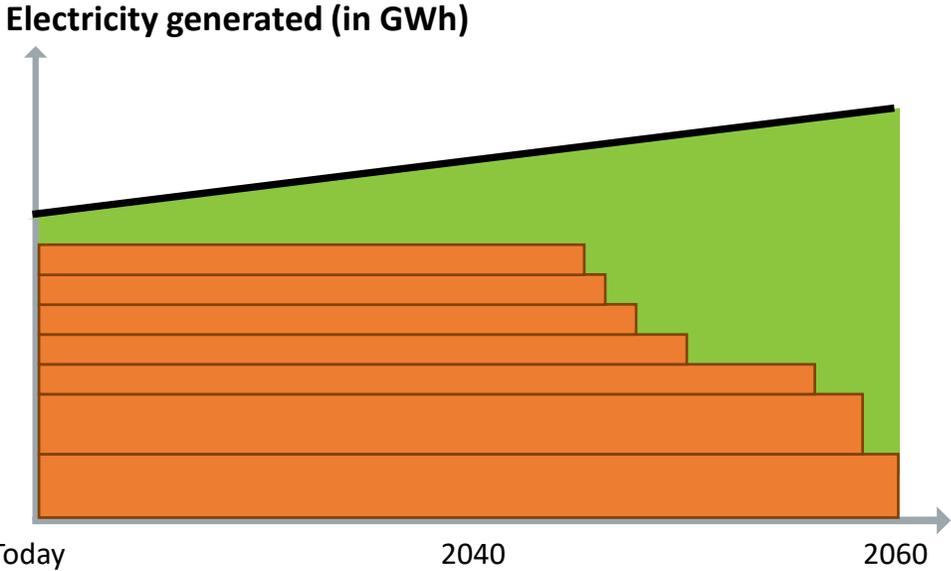
Source (left): Carbon Action Tracker 2020 and calculations based on IEA Data

Source (right) : BP "Statistical Review 2020"; IPCC "Special Report on Global Warming of 1.5°C"

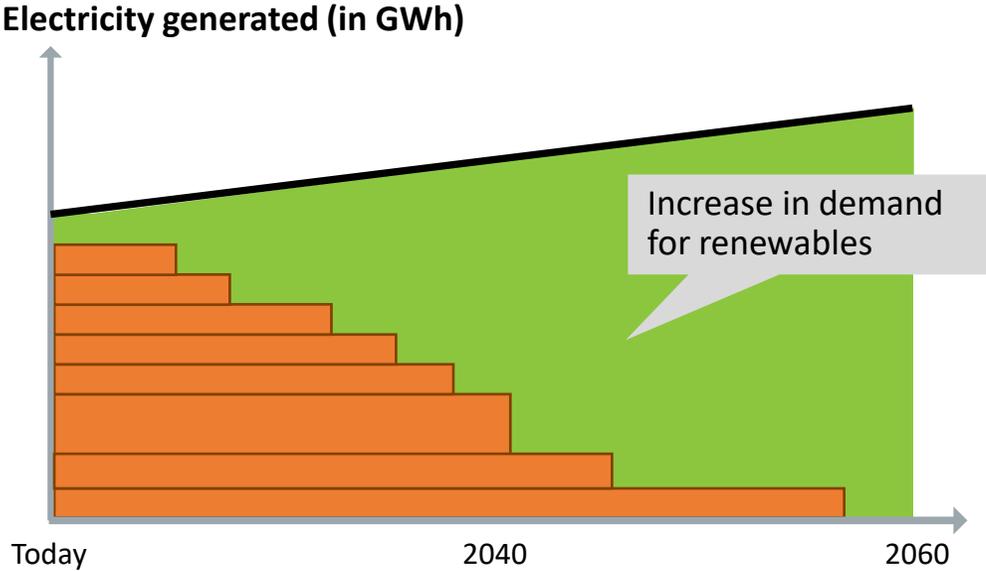
Author: Donald Kanak (WEF blog "How to accelerate the energy transition in developing economies" <https://www.weforum.org/agenda/2021/01/how-to-accelerate-the-energy-transition-in-developing-economies>)

Why speed up the retirement of coal-fired power plants?

Business-as-Usual



With Energy Transition Mechanism



— Total energy demand ■ Coal-fired generation ■ Renewable energy generation

Early retirement of existing coal-fired power plants can

- reduce emissions and improve population health,
- create additional demand for clean energy investments, and
- lower overall generation costs in the long-run.

ADB's Holistic 4P Approach Anchoring the ETM

People

Supporting just transition, protecting livelihoods and affordable electricity

- Just transition assessments, financing facility, and technical assistance
- Environmental and social safeguards

Policy

Supporting policies and regulations to accelerate energy transition

- Climate change policy programs
- Energy sector reform programs
- Sector analyses and advisory

Power

Promoting scalable, market-based model for reducing emissions from power plants

- Coal retirement and repurposing
- Investments in clean energy, storage, or grid

Partnership

Based on solid partnership with national and international stakeholders

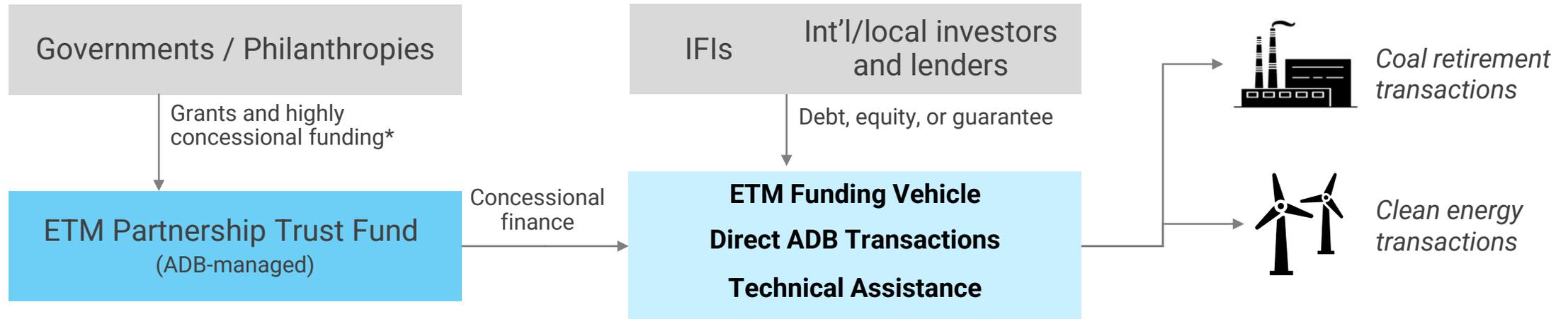
- Governments
- International financial institutions and global climate finance
- Commercial lenders and investors
- Private sector
- Nongovernment organizations and civil society organizations
- Philanthropies

Energy Transition Mechanism (ETM)

Accelerating the transition from coal to clean energy

ETM

- **Accelerates the retirement or repurposing** of coal-fired power plants and **scales up investment** in clean energy and energy storage using public and private finance through refinancing, acquisition or sustainability linked corporate loans.
- Aims to achieve **just and affordable transition** by addressing impacts to people and communities from coal retirement.



* Grants and highly concessional funding (low-cost equity and debt) are critical to catalyze private capital and make ETM a success.

ADB's Energy Transition Mechanism:

Increasing momentum from Glasgow COP26 to Bali G20 and Egypt COP27



Philippine Finance Secretary Carlos G. Dominguez, Indonesian Finance Minister Sri Mulyani Indrawati, and ADB President Masatsugu Asakawa during the ETM Launch at UN Climate Change COP26, Glasgow on 3 Nov. 2021.



Pres. Asakawa, Indonesia's Finance Minister Indrawati, World Bank Managing Director of Operations van Trotsenburg, and Islamic Development Bank Pres. Dr. Al Jasser launching the Indonesia ETM Country Platform on 14 Nov. 2022 in Bali.



OneADB ETM Team led by SDCC DG Bruno Carrasco is joined by Germany's Anna Lührmann, Deputy Foreign Minister and State Minister, representatives from Kazakhstan and Viet Nam, and speakers from Bezos Earth Fund, Climate Policy Initiative, Glasgow Financial Alliance for Net Zero, Institute for Climate and Sustainable Cities, and Sustainable Energy for All during COP27 in Sharm El-Sheikh on 17 Nov. 2022.

- Indonesia and the Philippines joined as key partners to launch the pilot study for ETM in Southeast Asia.
- Japan's Ministry of Finance announced a \$25 million grant, the first seed financing for ETM.
- The partnership was endorsed by senior cabinet-level officials from Denmark, the UK, and the US, as well as leading global financial institutions and philanthropies.
- MOU was signed with Rockefeller Foundation, including to accelerate the transition to clean energy.

- The Government of Indonesia launches the Indonesia ETM Country Platform alongside key partners—ADB, Islamic Development Bank and World Bank.
- Signing of a MOU on the landmark precedent ETM transaction in Indonesia between ADB, PT Perusahaan Listrik Negara, Cirebon Electric Power, and Indonesia Investment Authority.
- Signing of MOU between ADB and PT Sarana Multi Infrastruktur, Indonesia ETM Country Platform Manager.

- Germany's Ministry of Foreign Affairs announced its €30 million contribution to the ETM Partnership Trust Fund.
- Government representatives from Indonesia, Kazakhstan and Viet Nam provided updates on country-level ETM implementation.

Ongoing ETM Feasibility Study and Piloting

01



Project Selection

- Critical factors to focus on when selecting power plants:
 - Grid stability
 - Utilization
 - Plant age
 - Renewable replacement potential
 - Transactional appetite

02



Transaction Structuring and Financial Analysis

- Commercial and legal structure to efficiently retire the assets
- Valuation approach
- Role of existing stakeholders
- Cost of capital needed to achieve a significant lifetime reduction
- Potential additional revenue sources or costs (e.g., carbon and decommissioning)

03



Funding Vehicle Structuring

- Legal structure of ETM entity
- Capital structure and sources of funding
- Management structure
- Incentive structure
- Return expectations
- Major risks
- Safeguard policy
- Governance requirements

04



Environmental, Social, and Governance

- Replacement plan for retired capacity to ensure ETM has positive climate impacts
- Socioeconomic impact assessment of direct, indirect, and induced impacts in the coal value chain due to CFPP early retirement
- Planning of Just Transition activities and funding needs over short- and long-term
- Regional or country strategic environmental and social assessment of ETM options
- Asset-level audits

02 Transaction Structuring and Financial Analysis

Transaction models to accelerate retirement/repurposing of coal-fired power plants (CFPPs)

01 Acquisition Model¹ (SPV Level)

ETM acquires share capital in CFPP

ETM to take role as owner and operator of the coal plant

ETM agrees an early termination date with the utility and operates the plant until that date and then closes it or repurposes

Most suitable for **IPP plants with international bankable PPA**

02 Synthetic Model (SPV Level)

ETM invests senior/junior debt and/or other mezzanine capital to the CFPP

Equity ownership and operational responsibility kept with the current asset owner

Investment conditional on early termination being contractually agreed with owner and utility and appropriate security being provided

Most suitable for **IPP plants with international bankable PPA**

03 Portfolio Model (Corporate Level)

ETM provides funding to the corporate sponsor with CFPPs and greenfield clean energy projects

Sponsor guarantees greenfield clean energy projects will be built and coal plants retired ahead of schedule

Incentives (such as penalty interest) can be used to ensure that the transition occurs

Most suitable for **Utilities with a portfolio of plants**

While multiple transaction options exist, ETM will seek commitments from:

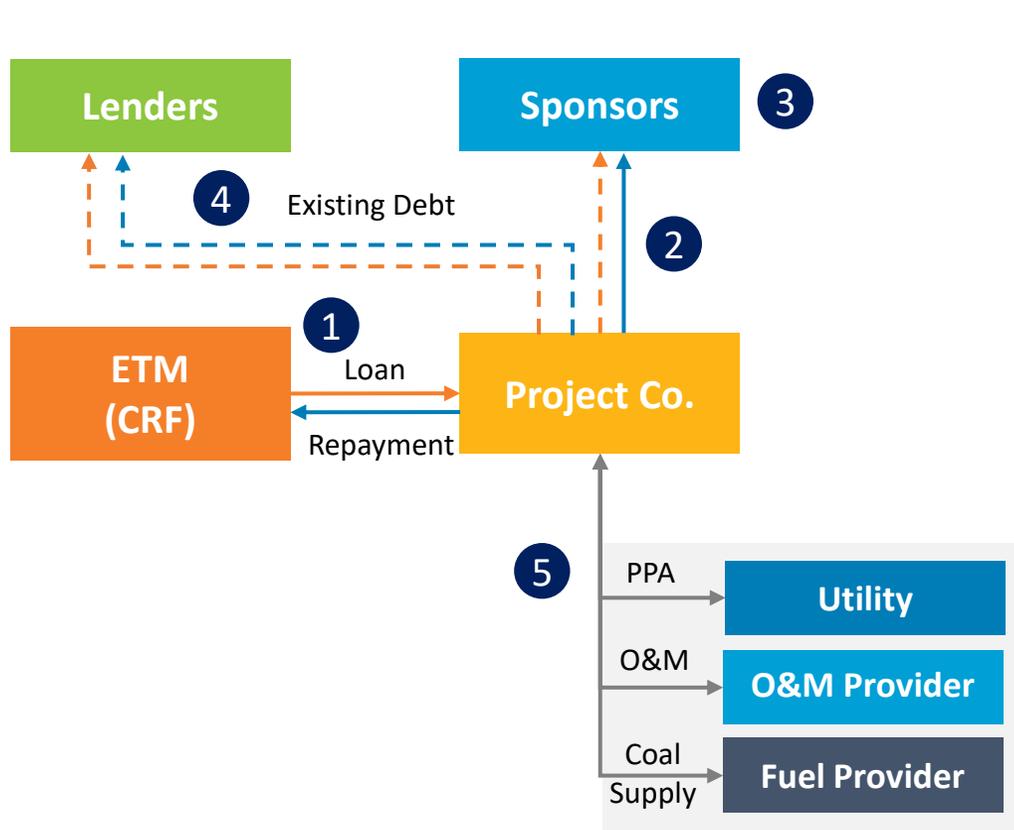
- **current project investors not to develop any new coal; and**
- **host country commitment to energy transition as a pre-condition for any deal.**

1. Acquisition Model to be utilized only in exceptional scenarios.

02 Transaction Structuring and Financial Analysis

Synthetic Model: ETM will re-leverage CFPs with low-cost capital while existing owners remain involved as equity owners and operator

ETM Synthetic Transaction Structure



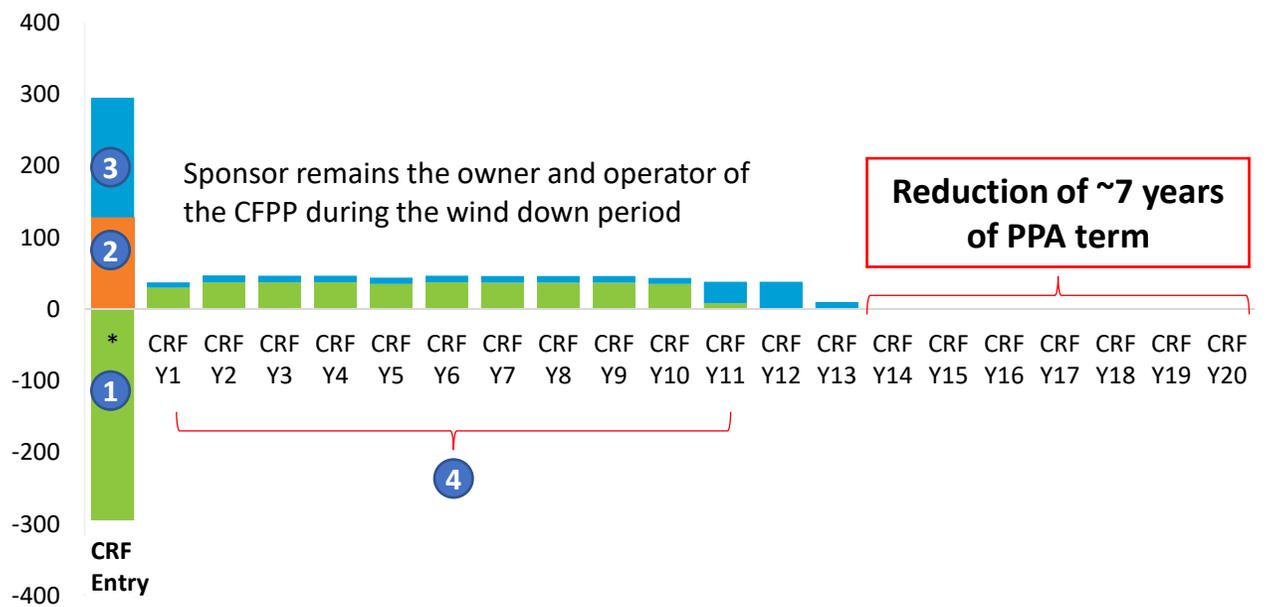
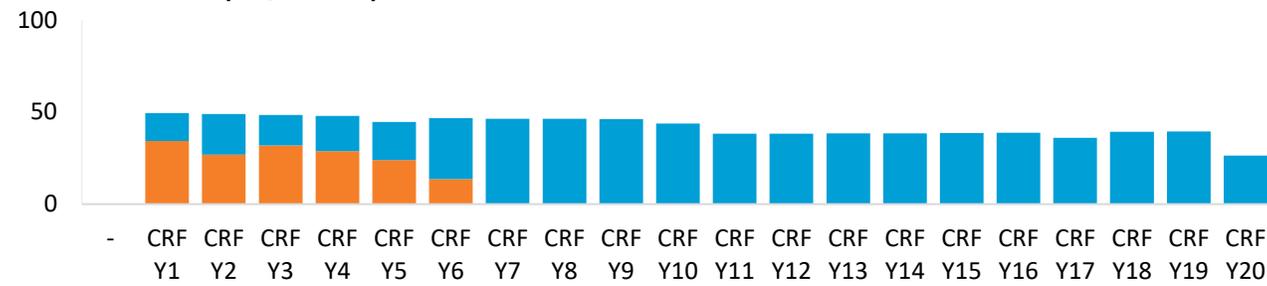
- 1 ETM invests in debt-like instrument into the project company and receives repayment based on sculpted cash flow (% of CFADS) over the investment horizon
- 2 Proceeds from ETM investment are paid to existing shareholders as a special dividend as a form of equity return. Existing shareholders continue to receive equity dividends (but at a lower level than without CRF)
- 3 Existing shareholders remain as 100% common shareholders until the end of the shortened PPA tenure
- 4 Transaction to be structured for existing financing arrangement to remain (e.g. pari-pasu with CRF) or fully exit
- 5 Shortening of PPA tenure to be contractually agreed with the Utility; major project agreements (O&M, Fuel) to remain as is but with shorter tenor

Synthetic Model: Illustrative cash flow model

**Business as Usual
(without CRF
entry refinancing)**

**After CRF
Investment**

Future cash flow (US\$ million)



- 1 \$300m ETM 10Y loan (funded by ~25% concessional capital) is provided to the project.
- 2 ETM loan proceeds are used to repay existing lenders.
- 3 Remaining ETM loan proceeds are used to pay a special dividend to sponsors, to compensate them for the economic loss due to the shortened operation period (same IRR as BAU scenario).
- 4 Project cash flows are used to repay ETM loan.

Legend

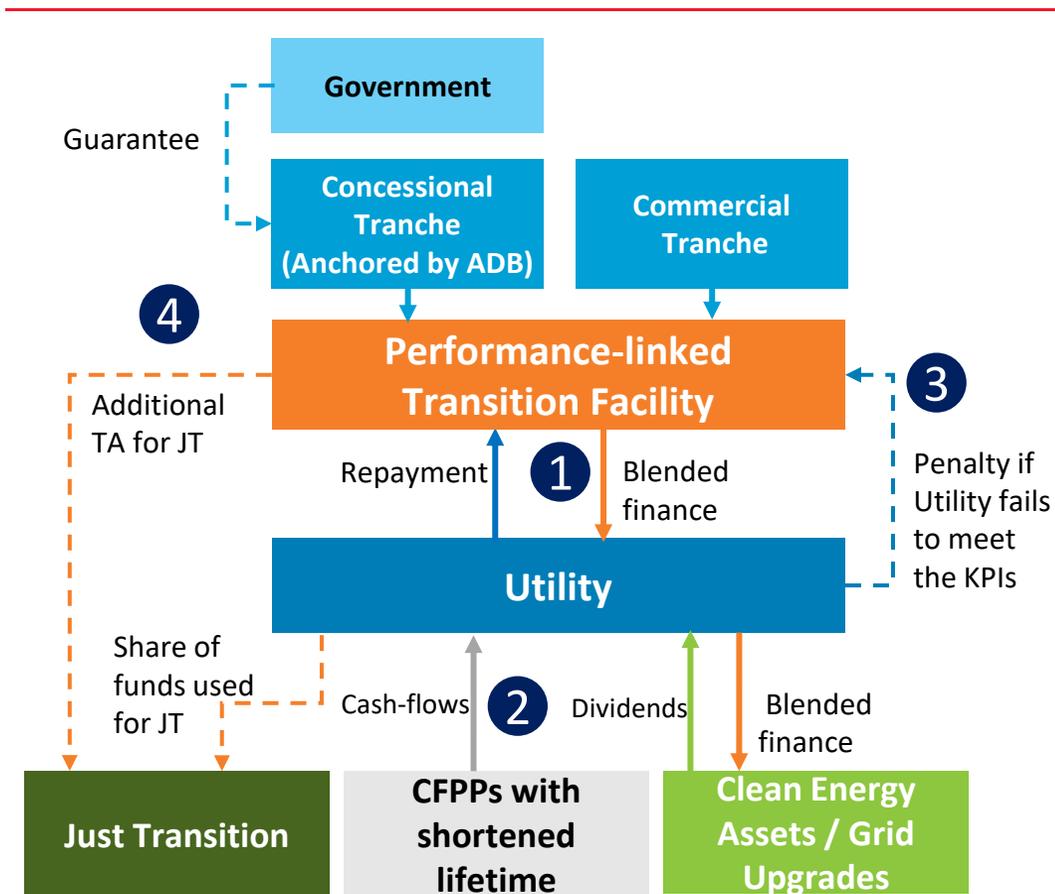
- Net equity cashflow
- Net debt cashflow
- Net CRF cashflow

ETM's market-based approach will significantly reduce coal plant life by re-leveraging with lower-cost capital from governments, multilateral banks, philanthropies, and private sector investors

02 Transaction Structuring and Financial Analysis

Portfolio Model: ETM will provide a performance-linked transition facility with financing provided at the corporate level.

ETM Portfolio Transaction Structure



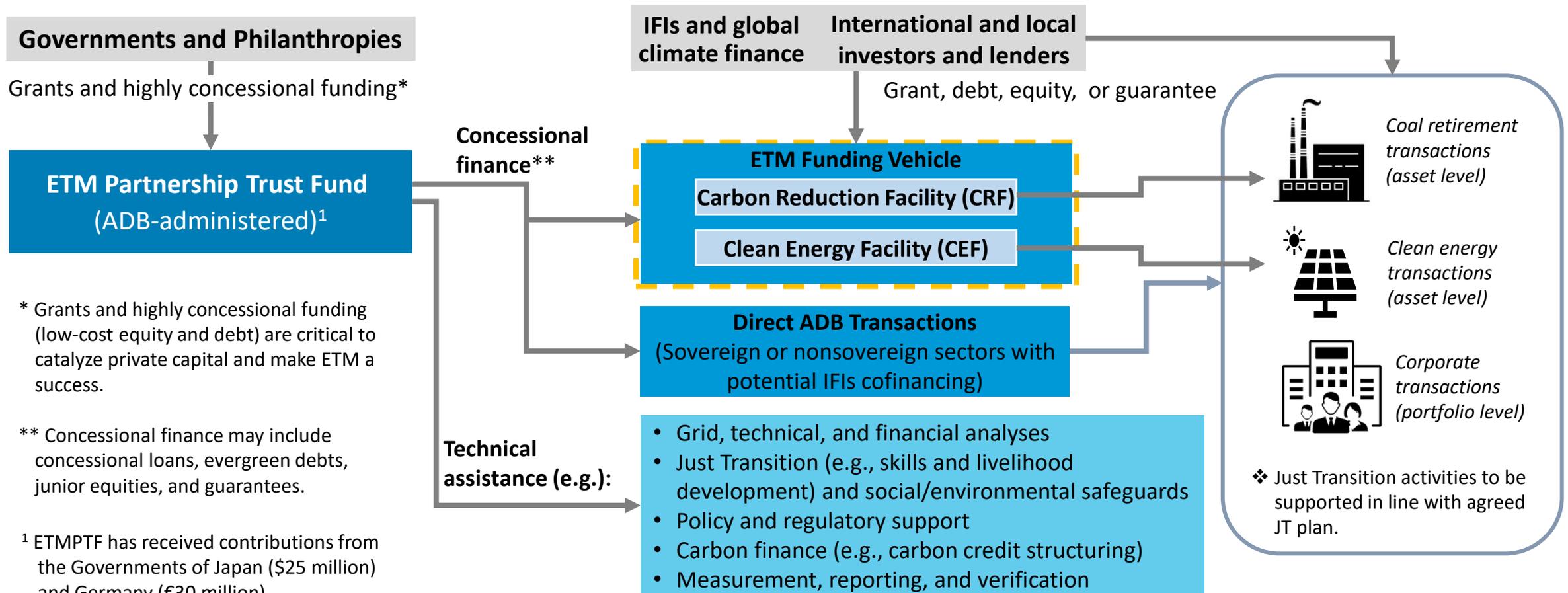
CFPP: Coal-Fired Power Plant

- 1 ETM to provide a corporate loan facility to Utility. KPIs could include items such as:
 - Individual coal plant shutdown (identified CFPP(s) to close)
 - Overall GW of coal plants closure by a certain date (Utility choose CFPP(s) to close)
 - CO2 reduction achievement - Utility and ADB/Financiers to agree a mechanism for calculating current emissions baseline and achieved CO2 reductions vis-à-vis this baseline
- 2 Utility uses cash receipt to shut CFPPs over time and use funding for renewable energy and grid upgrade projects
- 3 Utility to pay penalty for not meeting KPIs which may include
 - Penalty interest – level of concessionality of the loan would be reduced if KPIs are not met by applying a penalty interest (potentially cumulative since the inception of the loan)
 - Default – inappropriate use of funds or failure to meet KPIs could provide financiers the right to withhold future drawdowns and/or immediate repayment
- 4 Additional concessional capital/TA could be provided to help fund Just Transition (JT) activities

03 Funding Vehicle (FV) Structuring

ETM Funding Vehicle structuring is ongoing

- **CRF** will leverage the power of a blended finance approach, to accelerate retirement / repurposing of coal-fired power plants (CFPPs)
- **CEF** will catalyze and channel investment in new renewable energy generation, energy storage infrastructure, and requisite grid upgrades



* Grants and highly concessional funding (low-cost equity and debt) are critical to catalyze private capital and make ETM a success.

** Concessional finance may include concessional loans, evergreen debts, junior equities, and guarantees.

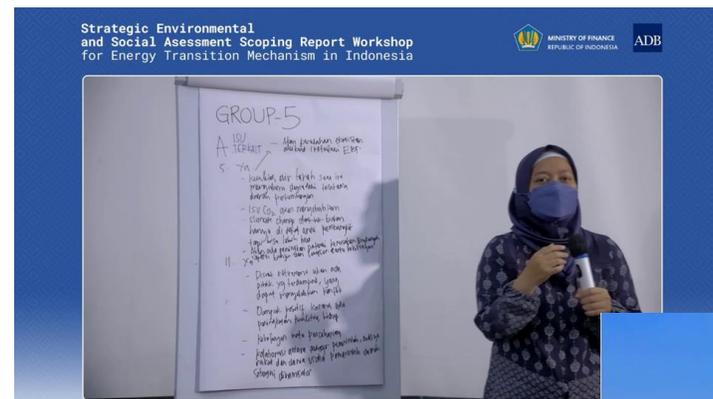
¹ ETMPTF has received contributions from the Governments of Japan (\$25 million) and Germany (€30 million).

Environmental, Social, and Governance

ADB's commitment to Safeguards and Just Transition are critical parts of ETM work

Strategic environmental and social assessment and stakeholder engagement

- A regional strategic environmental and social assessment (SESA) scoping study completed in 2022.
- Country-level SESA for Indonesia and SESA scoping study for Philippines are underway.
- Stakeholder analysis conducted and stakeholder engagement plan prepared for SESA
- Consultations with CSOs at regional and country level (Indonesia) conducted and will continue.
- A dedicated email address set up to allow for a real-time feedback (ETMfeedback@adb.org).



(left) A member of the SESA Consultative Forum presenting issues associated with different scenarios for energy transition at the national SESA workshop.

(right) SESA scoping study for Indonesia, published in March 2023.



FINAL SESA SCOPING REPORT

Strategic Environmental and Social Assessment (SESA) of the Energy Transition Mechanism (ETM) in Indonesia

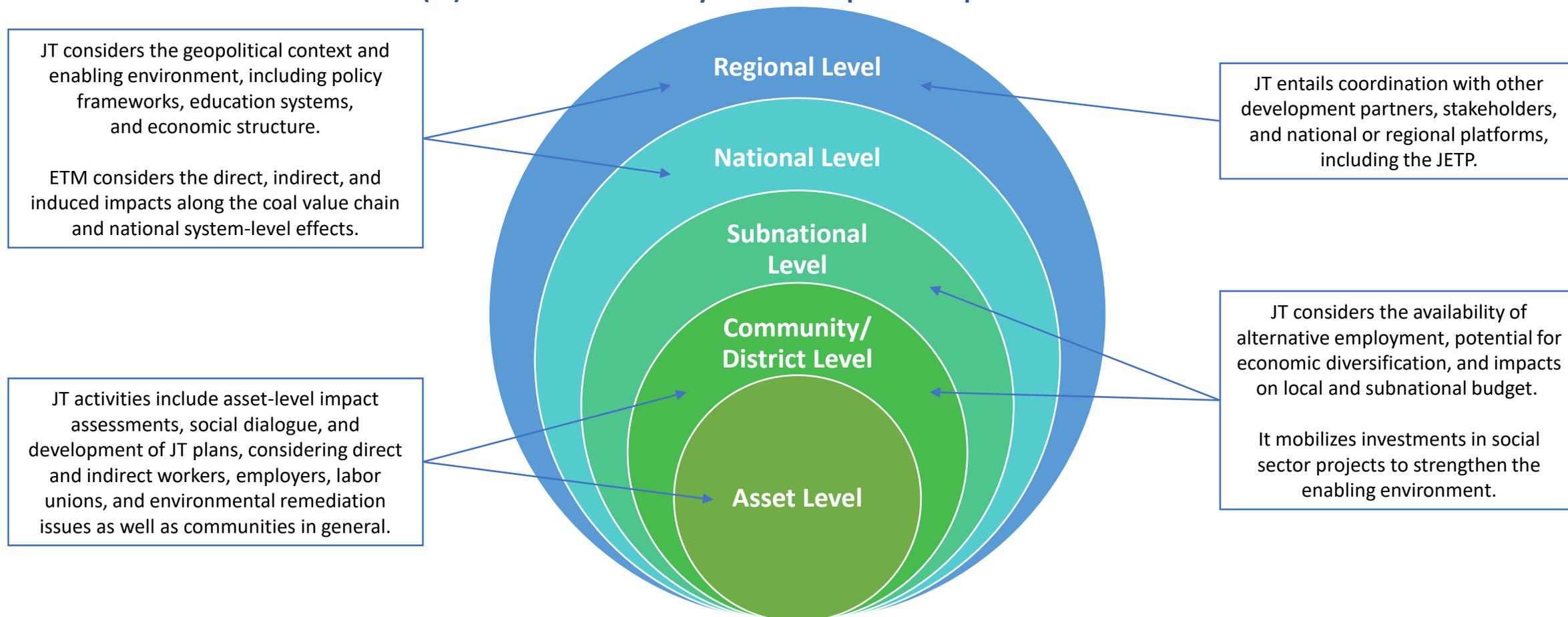
(right) Government and NGOs participating during the hybrid SESA workshop held back-to-back with CSO consultation held in Jan. 2023 in Bogor, Indonesia.



ADB's commitment to Safeguards and Just Transition are critical parts of ETM work

Comprehensive Approach to Just Transition under the ETM

Just Transition (JT) activities extend beyond the scope and implementation timeframe of ETM.



Together with ADB's social and environmental safeguards, Just Transition provides support for workers, communities, and regions impacted by the intervention of the ETM and associated projects, while preserving the environment.

Piloting ETM in Southeast Asia: Progress and Updates

Indonesia

- Technical support for the establishment of the Indonesia ETM Country Platform, aiming to mobilize domestic and international financial resources and support. MOF Regulation for ETMCP and MEMR decree for early retirement roadmap being finalized.
- Conducted 4 focus group discussions in 2022 in Jakarta, and 5th on Mar. 2023
- MOU signed for first ETM transaction exploring early retirement of the first coal power plant (Cirebon 1, 660MW)
- Submission of \$500 million in highly concessional funding investment

plan under the CIF-ACT program

Ongoing work:

- Finalization of feasibility report
- RBL and PBL processing
- JT studies being finalized
- Country SESA for INO
- Engagement with CSO/NGO community at national and subnational levels
- Power system analysis and grid impact studies

Philippines

- Conducted 2 joint MDB missions for the preparation of an investment plan under CIF-ACT.
- ADB's first climate action policy-based loan (May 2022) includes DOE and DOF commitment to establish an ETM financing framework, considering energy security and just transition.

Ongoing work:

- Full feasibility study ongoing
- Preparation of draft CIF-ACT Investment Plan, with World Bank Group
- Continue discussions with private sector independent power producers on transaction structuring models and financial analysis
- Country SESA scoping study being initiated

Viet Nam

- Pre-feasibility study completed in 2021.
- ETM workshop held in May 2022, hosted by MONRE.
- VIE Country Partnership Strategy 2023–2026 highlights ETM support.

Ongoing work:

- Dialogue ongoing with key ministries to commence feasibility study in 2023
- Coordinating with development partners to support policies and regulations on energy transition

ETM: from a concept toward an operational program



Initial focus on **Indonesia, Philippines, and Viet Nam** with additional interest expressed by **Pakistan and Kazakhstan**.



Exploration of the **first private sector ETM transaction in Indonesia** (660MW plant).



Launch of the **Indonesia ETM Country Platform** at the G20 Summit in November 2022.



Catalyzing active participation from G7 countries including through discussions around the **Just Energy Transition Partnership (JETP)**.



Collaborating with other DMCs in Asia, which are embarking on their own energy transition strategies.

Thank you!