FAIR FINANCE ASIA

INCLUSIVE JUST ENERGY TRANSITION IN SOUTHEAST ASIA

PHASING OUT COAL, PHASING IN JUSTICE: ROADMAP FOR FINANCING A RESPONSIBLE REGIONAL COAL PHASE-OUT IN ASIA

FAIR FINANCE ASIA

INCLUSIVE JUST ENERGY TRANSITION IN SOUTHEAST ASIA

PHASING OUT COAL, PHASING IN JUSTICE: ROADMAP FOR FINANCING A RESPONSIBLE REGIONAL COAL PHASE-OUT IN ASIA

FAIR FINANCE CAMBODIA
A MEMBER OF FAIR FINANCE ASIA

ResponsiBank Indonesia

FairFinance Laos

FairFinance Philippines

FairFinance Thailand

SUPPORTED BY
Sweden
Sverige

About this report

This report, jointly undertaken by Oxfam's Fair Finance Asia (FFA) and Influencing Just Energy Transition in the ASEAN (I-JET) Programs, assesses the maturity and progress of coal phase-out across selected countries in Asia by reviewing national policies and commitments against Paris Agreement timelines. It includes an analysis of financial flows for coal power generation and regional financial institution policies that influence coal transition. Findings inform indicative coal exit timelines and criteria. In line with a just and inclusive energy transition, the study also examines potential workforce and community impacts and identifies risk mitigation measures and social safeguards. In doing so, it offers guidance for governments, financial institutions, companies, and civil society on aligning national actions with the Paris Agreement timelines to limit warming to 1.5°C, based on international good practice and existing guidelines.

This report considers data and documents published before 30 November 2025.

This report is intended to provide data-driven evidence to contribute to public discussions on coal phase-out. For more information on this report, please contact FFA at info@fairfinanceasia.org.

About FFA

FFA is a regional network of Asian civil society organizations committed to ensuring that the business decisions and funding strategies of financial institutions in the region respect the social and environmental well-being of the communities in which they operate. Civil society coalitions from 10 countries are part of the FFA network: Bangladesh, Cambodia, India, Indonesia, Japan, Lao PDR, Pakistan, the Philippines, Thailand, and Vietnam. To learn more about FFA, visit: www.fairfinanceasia.org.

About I-JET

The I-JET Program is a five-year, multi-country initiative (July 2022–June 2027) implemented through Oxfam's Asia Regional Platform in partnership with Oxfam in Cambodia, Oxfam Pilipinas, the ASEAN Centre for Energy (ACE), and the Climate Action Network Southeast Asia (CANSEA), with support from the Australian Government through the Australian NGO Cooperation Program (ANCP). Operating in Cambodia, the Philippines, and at the Association of Southeast Asian Nations (ASEAN) level, I-JET focuses on influencing energy narratives, policies, and financing frameworks to advance a gender-just and socially inclusive energy transition. The program strengthens the voice and participation of communities, civil society, and non-state actors to shape decision-making toward renewable, affordable, and equitable energy systems across Southeast Asia.

Citation

Correct citation of this document: Fair Finance Asia and Influencing Just Energy Transition in the ASEAN (2026, July), *Phasing out coal, phasing in justice: Roadmap for financing responsible regional coal phase-out in Asia*.

Acknowledgements

This report was finalized with strategic guidance and editorial reviews by Bernadette Victorio (Program Lead, FFA), Srishty Anand (Research and Advocacy Advisor, FFA), Shreya Kaushik (Research and Strategic Reporting Advisor, FFA), Kyle Cruz (Influencing and Campaigning Manager, FFA), Geraldine Hoggang (Communications Officer, FFA), Shubert Ciencia (Program Manager, I-JET), and Mark Vincent Aranas (Communications Consultant, I-JET).

FFA acknowledges the collaboration and support of FFA national coalitions in Cambodia, Indonesia, Lao PDR, the Philippines, and Thailand. In addition, FFA would like to thank Sandy Pederson of Seed Edit Communications for editing, and Hongti Mao and Saovory Nhel, Creative Art Consultants, for designing the report.

FFA appreciates the peer review support from Profundo for the report and helping to fine tune the methodology.

Front cover page: Image generated using ChatGPT by OpenAI, June 2026.

Disclaimer

The research contained in this report is desktop-based, relying exclusively on publicly available data, literature, and disclosures. It does not incorporate primary data collection, confidential information, or in-depth stakeholder interviews and has not been independently verified. As such, the findings should not be interpreted as definitive statements of fact, nor as comprehensive assessments of any specific institution, policy, or financial instrument.

All assessments of financial institutions, companies, regulatory environments, and coal phase-out practices are intended to provide objective insights into regional trends, highlight areas of progress, and identify opportunities for strengthening transition governance. The analysis does not seek to assign blame, criticize, or single out any entity, nor does the report imply wrongdoing, negligence, or intent by any organization referenced.

This report was developed under the regional FFA program. While it draws on regional-level analysis, it does not reflect views of Oxfam in Vietnam, as it was not involved in the technical development or validation of the findings.

This report is provided for informational purposes and is not to be read as providing endorsements, representations, or warranties of any kind whatsoever. Fair Finance Asia and Influencing Just Energy Transition in the ASEAN have observed the greatest possible care in collecting information and drafting publications but cannot guarantee that this report is complete. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

In connection with this report or any part thereof, Fair Finance Asia and Influencing Just Energy Transition in the ASEAN do not owe a duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and shall not be liable to any party who uses or relies on this report.

This material/production has been financed by the Embassy of Sweden in Bangkok, Thailand. Responsibility for the content rests entirely with the creator. The Embassy of Sweden in Bangkok does not necessarily share the expressed views and interpretations.

THIS REPORT IS ENDORSED BY THE FOLLOWING ORGANIZATIONS:

FairFinance Bangladesh

FAIR FINANCE CAMBODIA
A MEMBER OF FAIR FINANCE ASIA

ResponsiBank Indonesia

FairFinanceGuide Japan

FairFinance Pakistan

FairFinance Philippines

FairFinance Thailand

ASIA NETWORK FOR PEOPLE'S ENERGY

BANKTRACK

CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

ACE	ASEAN Centre for Energy
ACT	Accelerating Coal Transition
ADB	Asian Development Bank
APAC	Asia Pacific
APS	Announced Pledges Scenario
ASEAN	Association of Southeast Asian Nations
BAM	Belém Action Mechanism
BAU	Business as usual
BNEF	Bloomberg New Energy Finance
BOCHK	Bank of China (Hong Kong) Limited
BOL	Bank of the Lao PDR
BOT	Bank of Thailand
BSP	Bangko Sentral ng Pilipinas
CB	Collective bargaining
CBAM	Carbon Border Adjustment Mechanism
CCPT	Climate Change and Principle-based Taxonomy (Bank Negara Malaysia)
CCS	Carbon capture and storage
CCT	Clean coal technology
CCUS	Carbon capture, utilization, and storage
CFPP	Coal-fired power plant
CIF	Climate Investment Funds
CIMB	Commerce International Merchant Bankers
COP	Conference of the Parties
CPI	Climate Policy Initiative
CRMS	Climate Risk Management and Scenario Analysis
CSO	Civil society organization
CSR	Corporate social responsibility

DBS	Development Bank of Singapore
DCM	Debt Capital Markets
DFI	Development finance institution
DNSH	Do no significant harm
ESCAP	(UN) Economic and Social Commission for Asia and the Pacific
ETM	Energy transition mechanism
ETS	Emissions trading scheme
EU	European Union
FFA	Fair Finance Asia
FOA	Freedom of association
FOE	Freedom of expression
FPIC	Free, prior, and informed consent
GCEL	Global Coal Exit List
GEM	Global Energy Monitor
GFANZ	Glasgow Financial Alliance for Net Zero
GHG	Greenhouse gas
GST	Goods and services tax
GW	Gigawatt
GX	Green Transformation
I-JET	Influencing Just Energy Transition in Asia (Oxfam)
IEA	International Energy Agency
IEEFA	Institute for Energy Economics and Financial Analysis
IFC	International Finance Corporation
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
IPP	Independent power producer
IRENA	International Renewable Energy Agency
ISSA	International Social Security Association
ITUC	International Trade Union Confederation

JET	Just Energy Transition
JETP	Just Energy Transition Partnership
JT	Just Transition
KPI	Key performance indicator
kWh	Kilowatt hour
LDAR	Leak detection and repair
LT-LEDS	Long-Term Low Greenhouse Gas Emission Development Strategy
LTS	Long-term strategy
LTS4CN	Long-Term Strategy for Carbon Neutrality
MAE	Ministry of Agriculture and Environment
MEMR	Ministry of Energy and Mineral Resources
MME	Ministry of Mines and Energy
MONRE	Ministry of Natural Resources and Environment
MPO	Managed phase-out
MRV	Measurement, reporting and verification
MSS	Minimum social safeguards
MW	Megawatt
NDA	Non-disclosure agreement
NDC	Nationally Determined Contribution
NETR	National Energy Transition Roadmap
NZBA	Net-Zero Banking Alliance
NZE	Net-zero emissions
OECD	Organisation for Economic Co-operation and Development
ONEP	Office of Natural Resources and Environmental Policy and Planning
PDP	Power Development Plan
PDR	People's Democratic Republic
PEP	Philippine Energy Plan
PLN	Perusahaan Listrik Negara (Indonesia state electricity company)
PPA	Power purchase agreement

PPCA	Powering Past Coal Alliance
PR	Presidential Regulation
RCBC	Rizal Commercial Banking Corporation
REC	Renewable Energy Certificate
RMT	Remedial Measures for Transition
RUPTL	Rencana Usaha Penyediaan Tenaga Listrik (Indonesia's Electricity Supply Business Plan)
RUUPIN	Rang Undang-Undang Perubahan Iklim Negara (Malaysia Climate Change Bill)
SBV	State Bank of Vietnam
SDGs	Sustainable Development Goals
SET-P	Sarawak Energy Transition Policy
SFTG	Sustainable Finance Taxonomy Guidelines
SIS	System impact study
SLTEC	South Luzon Thermal Energy Corporation
SMBC	Sumitomo Mitsui Banking Corporation
SME	Small and medium enterprise
STEM	Science, technology, engineering, and mathematics
TSC	Technical screening criteria
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention on Climate Change
UNOPS	United Nations Office for Project Services
USD	United States dollar

EXECUTIVE SUMMARY

Regional context and growing momentum for coal phase-out

Despite warnings from the Intergovernmental Panel on Climate Change (IPCC) that limiting global warming to 1.5°C requires steep reductions in unabated coal use by 2030 and total phase-out of unabated coal by 2040, coal continues to dominate Southeast Asia's power mix.[1] As of 2024, coal accounted for nearly 110 GW installed capacity. The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) states that coal phase-out plans by 2040 are the most important step for countries to include in their Nationally Determined Contributions (NDCs) and other long-term climate planning to ensure alignment with the United Nations Sustainable Development Goals (SDGs) and the Paris Agreement.[2]

The transition to cleaner alternative energy sources, if not managed carefully, can increase people's risk of experiencing negative impacts as labor markets and local economies are restructured at a pace faster than workers and communities can adapt. These dynamics can lead to job insecurity and income loss. Such impacts can be particularly harmful to already vulnerable populations, including women and older persons.

A just transition recognizes the disproportionate risks experienced by different groups and aims to equitably distribute the benefits and potential harms associated with transitioning to a green economy. In the context of coal phase-out, this could mean, for example, coal businesses reskilling or upskilling their workers, or utilities companies acquiring free, prior, and informed consent (FPIC) and meaningfully consulting local communities affected by a proposed replacement energy project and collectively identify strategies to mitigate socio-economic and livelihood impacts.

Although adoption is uneven, Association of Southeast Asian Nations (ASEAN) member states have introduced several policies in the past five years aimed at reducing their dependence on coal power, which include moratoriums on new coal plants and coal reduction measures in NDCs. Additionally, coal power is becoming increasingly risky to investors as more ASEAN members implement carbon taxes and publish sustainable finance taxonomies. However, gaps remain—in the clarity of policies, in access to financing mechanisms for early coal-fired power plant (CFPP) retirement, and in standardized safeguards to protect affected workers and communities. The launch of the Belém Action Mechanism (BAM) at the United Nations Climate Change Conference (COP30) in November 2025 reinforced the global commitment to just transition, underscoring the urgency and opportunity for Southeast Asia to accelerate fair and inclusive coal transition pathways.[3]

Against this backdrop, this report is meant to inform and strengthen advocacy efforts of the FFA network towards more responsible and sustainable finance policies and practices in the region. The report provides in-depth analysis of six ASEAN countries of FFA's interest: Cambodia, Indonesia, Lao PDR, the Philippines, Thailand and Vietnam. It also includes a high-level review of seven additional countries, some of which are FFA partner countries, to provide broader regional context. It aims to offer guidance for governments, financial institutions, companies, and civil society on aligning national actions with the Paris Agreement timelines to limit warming to 1.5°C based on international good practice and existing guidelines.

National policy developments and early coal retirement initiatives

The governments of ASEAN member states have advanced, to various degrees, a broad set of coal-related policies since 2020, including updated NDCs with greenhouse gas (GHG) reduction targets, coal moratoriums, early-retirement or repurposing plans to convert or adapt existing CFPPs, regulations, disclosure requirements, and emerging financial tools such as green taxonomies, carbon pricing schemes, and carbon capture and storage (CCS) or carbon capture, utilization, and storage (CCUS) strategies. While these measures signal progress, they remain insufficient for a Paris-aligned 1.5°C pathway. Meanwhile, renewable energy deployment in the region faces structural barriers, such as grid constraints, limited financing, and policy uncertainty, slowing transition. However, there are some notable initiatives to tackle coal reduction in a structured way. Indonesia's Just Energy Transition Partnership (JETP) and the Philippines' Energy Transition Mechanism (ETM) are both examples of structured finance models for coal retirement amid equity and transparency challenges, although neither has retired a CFPP to date.

Trends in coal financing and shifts in regional investment flows

Based on analysis of the *Global Energy Monitor's (GEM) Global Coal Project Finance Tracker* dataset, coal plant financing since 2020 across the assessed countries has declined sharply, with activity falling from 10 coal power plants and 30 units in 2020 to just two plants and seven units in 2025. A total of 128 financier involvements were identified between 2020 and 2025, 56% of which were international sources. China accounted for the largest number of financier involvements, with 39 identified between 2020 and 2025, followed by financiers headquartered in Indonesia (17) and India (13).[4] Based on publicly disclosed financing values, financiers headquartered in India accounted for the largest financing value at USD 5.73 billion, followed by China at USD 5.24 billion and Japan at USD 4.91 billion. However, financing values were not publicly available for all financier involvements. Of the 33 financier involvements without publicly disclosed financing values, 19 were associated with financiers headquartered in China, followed by five from Indonesia and three from Singapore.

Financing patterns vary, with new coal project financing in Cambodia, Indonesia, and Vietnam dominated by international financiers in 2020. China had been the largest public financier in the region prior to its commitment to end overseas coal project financing, with no direct coal project financing involvements identified after 2023. In 2024, financiers headquartered in Pakistan and India accounted for the largest number of involvements, with four and three respectively, while in 2025, only two financier involvements were identified, one from Lao PDR and one from Japan. The widespread adoption of policies restricting new international coal financing has since shifted coal investments to primarily domestic sources. Since 2020, Cambodia and Thailand have had no new coal project financing (Thailand even before 2020), while coal financing in Lao PDR and the Philippines has been from domestic sources.

Global trends reinforce this trajectory. According to a 2023 report by the Institute for Energy Economics and Financial Analysis (IEEFA), more than 200 financial institutions worldwide have adopted policies restricting coal financing.[5] However, GEM's 2025 report found that the number of new or updated coal policies adopted by major financial institutions continued to slow through 2024.[6] Additionally, corporate adoption

of meaningful coal phase-out policies has been slow, particularly with respect to Paris-aligned timelines. According to Global Coal Exit List (GCEL) reporting, only 165 of the more than 2,900 companies in GCEL's database have announced coal exit dates, with only 81 setting dates aligned with the 1.5°C Paris goal.[7] Asia remains a significant outlier, accounting for the majority of planned coal capacity and continuing to attract domestic financing despite international withdrawal trends.[8]

International policy shifts, including East Asia's commitments to end most overseas coal finance and the Asian Development Bank (ADB) and World Bank coal exclusion policies, have largely halted new multilateral development bank (MDB) financing for coal. However, overall electricity generation from coal in the region has continued to rise.[9]

Notably, where financial institutions have adopted coal-related restrictions, these policies are often limited to project-level financing for new coal assets and do not consistently extend to general-purpose or corporate financing for coal producers. This indicates that while direct participation in new coal plant financing may decline, broader financial support for coal expansion, including for upstream coal mining, can persist.

In parallel, liquefied natural gas (LNG) is increasingly positioned as a short- to medium-term bridge fuel for Asia, with more than 125 GW of new power projects expected from 2025–2030. However, LNG will be subject to high costs, price volatility, and long-term stranded asset risks as renewables become more competitive. These dynamics suggest that while coal financing is contracting, investment flows to LNG may introduce new transition challenges if not paired with clear sunset timelines and methane emissions management measures in line with international best practices.

Recommended way forward

Guiding principles for countries to achieve a credible coal phase-out

Achieving a credible coal phase-out requires more than plant closures. It also requires aligning national policies, financing frameworks, and energy system planning with Paris-aligned pathways that eliminate unabated coal by 2040 while ensuring a just transition. Eight guiding principles can support this alignment:

1. **No new coal development:** A binding national ban on new grid-connected and captive coal plants, with no exemptions.
2. **Time-bound and enforceable phase-out plan:** Coal retirement codified in policy, supported by a transparent roadmap with pre-identified units and enforced timelines.
3. **Zero unabated coal in the power mix:** Power sector GHG reporting confirms no coal-attributable Scope 1 emissions, subject to independent assurance.
4. **Permanent retirement or conversion of all units:** All coal plants retired or converted to cleaner generation.
5. **No investment in false solutions:** Natural gas is a fossil fuel resource and should be subject to strictly monitored conversions in the short term. Existing conversions or those underway should be subject to strict life-cycle emissions limits, methane management, sunset dates before 2050, and safeguards to avoid fossil fuel lock-in where lower-carbon alternatives are feasible.
6. **End of coal financing:** Public and private financing, guarantees, and subsidies for the coal value chain formally prohibited, including through central bank policy.
7. **Site remediation requirements:** Retired sites include funded remediation plans with clean-up targets, responsible parties, and post-closure monitoring.

8. **Just transition commitments:** Worker and community safeguards embedded with measurable outcomes, including protection of civic space and rights defenders, jointly monitored by government, civil society organizations (CSOs), and power companies (see Social safeguards and just transition requirements below).
9. **No expansion for AI or digital energy demand:** Rising energy demand from digital transformation must not be used to justify further fossil fuel or coal expansion.

Social safeguards and just transition requirements

Coal phase-out restructures labor markets, local economies, and land use practices, all of which can have a negative impact on people's lives. It is critical that just transition safeguards are embedded in coal phase-out policies and initiatives to ensure affected workers, communities, and regions are supported through this transition. A just transition must embed protections that ensure social equity accompanies the shift away from coal. Key actions include:

- Mapping workforce impacts and providing income support, reskilling, and access to new green jobs.
- Developing early regional diversification plans and ensuring fair compensation for affected communities.
- Guaranteeing participatory land-use decisions, including FPIC, and protecting land rights.
- Implementing gender-responsive policies and targeted skills programs for women and Indigenous Peoples.
- Maintaining energy access and affordability through integrated planning, grid upgrades, and decentralized renewables.
- Protecting the civic space, participation rights and rights defenders, disclosing coal-retirement decisions and involving CSOs in monitoring.

Step-by-step coal phase-out framework for financial institutions

A structured, seven-step framework for financial institutions can help financial institutions in Asia ensure an orderly, Paris-aligned transition.

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Immediate prohibition of support for coal expansion	Commit to a global phase-out of thermal coal by 2040	Mandate client transition planning	Escalate engagement to ensure transition compliance	Finance early retirement of CFPPs	Protect people from transition-related harms	Report transparently on coal exposure and transition progress

Delivering a coal phase-out that is both rapid and equitable will require unprecedented coordination across governments, financial institutions, and industry. Clear policy signals, enforceable timelines, and robust environmental and social safeguards must be paired with innovative financing solutions to accelerate early retirement and scale clean energy alternatives. As ASEAN economies navigate this transition, the priority is not only to meet climate targets but to do so in a way that protects livelihoods, strengthens energy security, and positions the region for sustainable growth. The next five years will be decisive—turning commitments into action will determine whether Southeast Asia can lead a just and orderly shift away from coal.

1

INTRODUCTION

Cirebon coal-fired power plant operating at night, continuously emitting smoke from its combustion process. Photo credit: ResponsiBank Indonesia.

1.1. Background

As the Intergovernmental Panel on Climate Change (IPCC) warns of climate change tipping points, coal phase-out—the most carbon-intensive of the main fuel types—remains central to global energy transition discussions. IPCC pathways indicate that limiting warming to 1.5°C requires global energy-related carbon dioxide (CO_2) emissions to fall by 87–97% by 2050 and unabated coal consumption to decrease by 67–82% in 2030 compared to 2019 levels.[10] This is consistent with the International Energy Agency's (IEA) Net Zero by 2050 roadmap, which requires a 95% reduction in unabated fossil fuel use by 2040 relative to 2022 levels, including the complete phase-out of unabated coal.[11]

Coal accounted for an estimated 44% of global carbon emissions from fuel combustion in 2021 and remains one of the major sources of energy in many regions.[12] In Southeast Asia, coal accounted for just under 110 GW of installed power generation capacity in 2024, following closely behind natural gas, which ranks first in installed capacity with more than 110 GW.[13] This reliance underscores the regional challenge of aligning with Paris Agreement goals.

Over the past decade, coal moratoriums have proliferated globally, including in countries of the Association of Southeast Asian Nations (ASEAN). All ASEAN member countries have submitted their Nationally Determined Contributions (NDCs) with 2030 targets, with three of this report's focus countries (Cambodia, Indonesia, and Thailand) having recently submitted updated NDCs with 2035 targets and Vietnam actively drafting an updated NDC.[14] Countries in the region are also increasingly stating their intentions to transition away from coal, with Cambodia, Thailand, and Vietnam all including intentions to phase out or reduce reliance on coal power in their most recent NDCs.

In addition, coal investments are progressively facing a heightened risk of becoming stranded assets while renewables' cost per unit of capacity continues to decline.[15] For emerging economies, coal phase-outs can enable access to international finance for clean energy infrastructure. Globally, coal plants are being retired or retrofitted for cleaner energy sources to maximize the facility.

If not managed carefully, the transition to a green economy and cleaner alternative energy sources can place people at risk of negative impacts. As established coal value chains are disrupted and new energy infrastructure is developed, these dynamics can lead to income loss for coal workers, infringements on land rights, forced displacement, and decreased energy affordability. Such impacts can be particularly harmful to already vulnerable populations, including Indigenous Peoples and migrant workers.

According to the International Labour Organization (ILO), a just transition recognizes the disproportionate risks experienced by different groups and *"involves maximizing the social and economic opportunities of climate and environmental action, while minimizing and carefully managing associated challenges."*[16] In the context of coal phase-out, just transition includes coal businesses providing workers with upskilling opportunities for employment in non-coal sectors, or coal plant employers working with local governments to establish social safeguards for retrenched workers.

Despite these trends, ASEAN countries continue to face significant challenges and operational barriers to reducing coal production and consumption. In terms of national climate targets and supporting policies, The Climate Action Tracker, which assesses countries' climate policies and targets against global temperature goals, finds those in Indonesia, Thailand,

and Vietnam are rated as either "highly insufficient" or "critically insufficient."[17] These ratings indicate that existing policies are consistent with global warming outcomes of around 3–4°C or higher and unaligned with the Paris Agreement. When conditional NDC targets are assessed, both Indonesia and Vietnam are rated as "critically insufficient," suggesting that current commitments would require additional measures to align with international climate goals.[i]

These observations are reflected in coal-related policies and associated activities in the region. In some jurisdictions, permitting processes for coal projects have been associated with governance risks, which potentially undermine transparency and accountability. Where governments demonstrate strong commitment, progress has been gradual due to the need for clearer transition benchmarks, further development of sustainable finance taxonomies, and stronger interdepartmental coordination. In addition, informal coal trade remains prevalent in certain economies, creating data gaps in official reporting. Efforts are further challenged by civil objections to social displacement in areas where entire communities depend on the coal value chain.[18]

Against this backdrop, it is essential to ground policy responses in an internationally recognized understanding of a just transition, defined by the ILO as *"greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities, and leaving no one behind."* It is therefore critical that governments and corporations actively involve workers and communities in designing and implementing just transition programs while also aligning national climate commitments and policy implementation.

1.2. Objectives of this policy guidance

This study aims to assess the maturity and progress of coal phase-out across selected countries of Asia by reviewing national policies and commitments against Paris Agreement timelines. It includes an analysis of financial flows for coal power generation and regional financial institution policies that influence coal transition. Findings inform indicative coal exit timelines and criteria. In line with a just and equitable energy transition, the study also examines potential workforce and community impacts and identifies risk mitigation measures and social safeguards. In doing so, the study offers guidance for governments, financial institutions, companies, and civil society on aligning national actions with the Paris Agreement timelines to limit warming to 1.5°C, based on international good practice and existing guidelines.

1.3. Methodology

This multidisciplinary policy review combines policy analysis, financial research, and literature review to address key research questions. A total of 15 countries were assessed (see **Table 1**).

i Assessments for Indonesia and Vietnam reflect recent policy updates, including Indonesia's Second NDC (2025). However, Thailand's most recent assessment dates to 2022 and does not include recent policy changes, including its latest NDC.

Table 1 Coal phase-out assessment coverage and country selection rationale

Category	Countries	Country selection rationale
In-depth analyses (focus countries)	Cambodia, Indonesia, Lao PDR, Philippines, Thailand, Vietnam	These ASEAN countries are also within the geographic scope of the FFA network. They were selected to illustrate trends in the energy sector, just transition and the progress of coal phase-out across Southeast Asia.
High-level reviews (other countries)	Bangladesh, Brunei, India, Malaysia, Myanmar, Pakistan, Timor-Leste	ASEAN countries, including some within FFA's geographic scope, are covered, not covered in the in-depth analysis. Their coal phase-out policies are included for a comparative overview of the ASEAN landscape and to identify potential inter-regional learning.
Cross-border relations (other countries)	Japan, Singapore	Selected Asian countries with close geographical and economic ties and significant fossil fuel-related (financing) activities in South and Southeast Asia.

1.4. Scope and limitations

Data sources and assessment approach

The research contained in this report is desktop-based, relying exclusively on publicly available data, literature, and disclosures accessible as of 30 November 2025. *(While the report still considers the policy status as per mentioned cut-off date, there have been some key policy changes across some research countries. Annex titled "Editor's note: Policy status update" tracks the status of key policies that happened beyond the data cut-off timeline of November 30, 2025. These updates however do not have any impact on the recommendation and phase-out approach mentioned in the report.)* Subsequent policy announcements, financial disclosures, or regulatory developments after this date are not reflected in the findings. It does not incorporate primary data collection, confidential information, or in-depth stakeholder interviews and has not been independently verified.

The primary source for coal asset tracking was the Global Energy Monitor's (GEM) Global Coal Project Finance Tracker database. GEM provides robust project-level data but only captures financing directly linked to specific coal-fired power projects. It does not include broader corporate financing, such as loans provided to companies operating in the coal-fired power sector. The dataset includes both financial institutions and corporate actors as financiers, with corporate actors representing a smaller share of coal unit financiers in both the number and value of transactions captured in this analysis. While 2025 GEM data are included in the analysis, the 2025 dataset was incomplete at the time of writing and therefore does not reflect a full year of project and financing developments. In the majority of cases, financing captured in the analysis is associated with new coal units or expansion of coal-fired power plant (CFPP) capacity. However, the GEM database does not systematically distinguish whether financing is directed towards new capacity, expansion, or other investments required for continued operation. As a result, in a small number of cases, financing associated with coal power plants may reflect other purposes, such as the installation of emissions control systems. These instances are infrequent, and this report does not distinguish them separately from the broader analysis of coal capacity financing.

All assessments of financial institutions, companies, regulatory environments, and

coal phase-out practices are intended to provide objective insights into regional trends, highlight areas of progress, and identify opportunities for strengthening transition governance.

Policy research scope

The depth of analysis varies by country. Focus countries received more detailed policy reviews while others were assessed at a broader level for regional context. The findings represent a snapshot in time and may not capture regulatory changes after the research cut-off date.

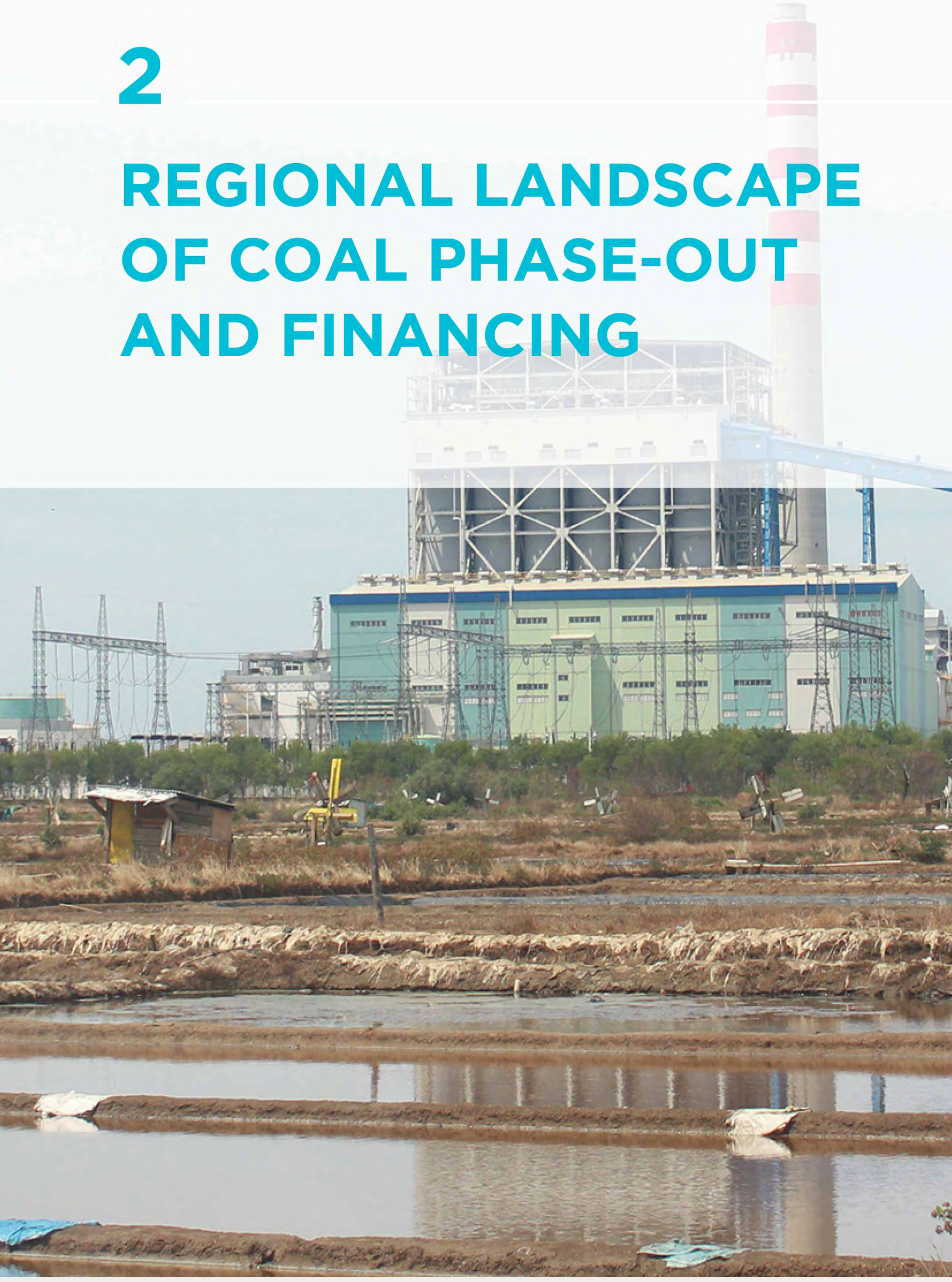
Scope of recommendations

The recommendations presented in this report focus on national coal phase-out policies and financial institution practices for exiting coal from investment and lending portfolios. Coal phase-out timelines with defined milestones are provided for governments, alongside a seven-step framework to support financial institutions in eliminating portfolio exposure to coal by 2040. Just transition considerations are integrated throughout the report, with recommended safeguards to protect affected workers and communities during the transition.

Condition of farmlands around the Cirebon coal-fired power plant. Photo credit: ResponsiBank Indonesia.

2

REGIONAL LANDSCAPE OF COAL PHASE-OUT AND FINANCING

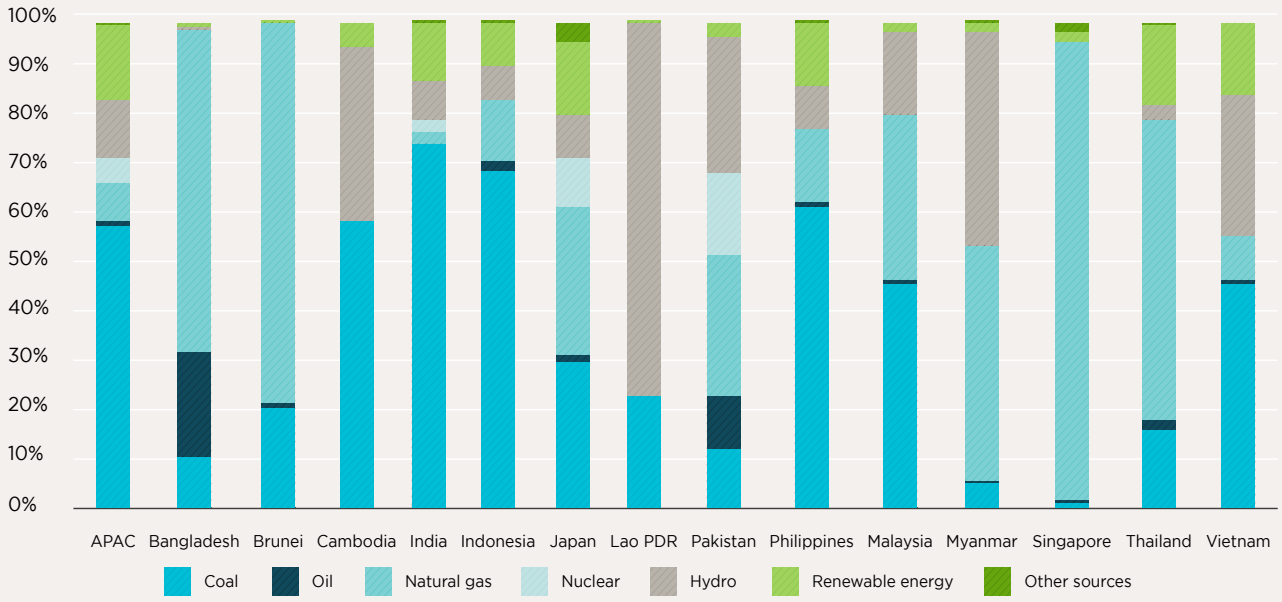


Salt pond area at Cirebon 1 coal-fired power plant, 2023. Photo credit: Siti Hannah Alaydrus/WALHI West Java.

2.1. Current status of coal in the energy mix

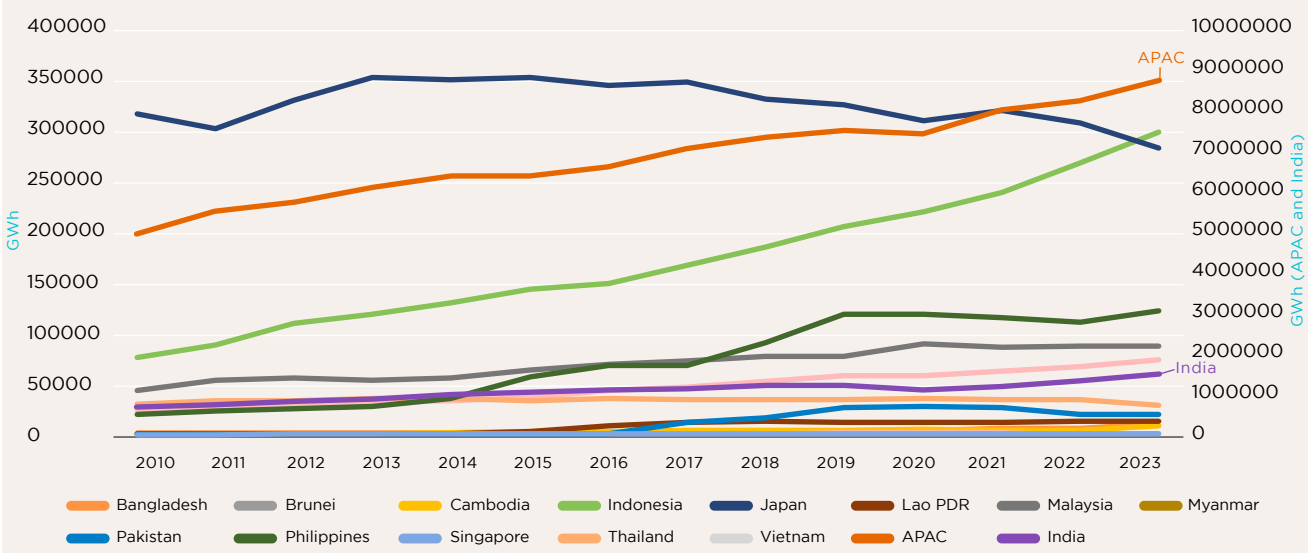
Coal continues to play a significant role in Asia's energy landscape, despite growing climate commitments and net-zero pledges across the region (see **Figure 1** and **Figure 2**). While coal use has declined in some countries, overall reliance remains substantial, posing a persistent challenge to regional decarbonization and clean energy transition efforts and underscoring the need for scrutiny of national coal policies. As of 2024, approximately 96% of global coal power plant development capacity is concentrated in just 10 countries, six of which are covered in this study: India (#2), Indonesia (#3), Bangladesh (#4), Vietnam (#8), Lao PDR (#9), and the Philippines (#10).[19] This study therefore provides critical regional insight into coal dependence, its implications for meeting climate goals, and the strengths, challenges, and gaps in existing policy frameworks.

Figure 1 Electricity generation sources in study countries, by source (% electricity produced), 2023 and 2024



Note: IEA data for Timor-Leste are not available. 2024 data were used for Japan. 2023 data were used for all other countries.
Source: IEA, Country and regional electricity profiles, latest available data (2023–2024).

Figure 2 Electricity generation from coal in Asian countries (GWH), 2010–2023



Note: IEA data for Timor-Leste are not available.
Source: IEA, Country and regional electricity profiles, latest available data (2010–2023).

2.2. Regional policy trends: Focus countries

This section presents a five-year review (2020–2025) of strategies, plans, and commitments, as well as financial policies and incentives of selected countries in ASEAN (Cambodia, Indonesia, Lao PDR, Philippines, Thailand, and Vietnam) that may directly or indirectly advance coal phase-out efforts in alignment with the Glasgow Climate Pact.[ii] **Table 2** provides a high-level summary of the policies and activities used to compare the six focus countries based on the steps they have taken toward coal phase-out.

While the criteria provide an indication of general progress on coal phase-out, they do not necessarily indicate alignment with limiting warming to under the ideal 1.5°C scenario or below 2°C under the Paris Agreement for the following reasons:

- **Long-term decarbonization target:** Long-term targets show broad ambition toward net zero but do not guarantee a coal phase-out. Many depend on future technologies and external financing, and coal plants can continue operating for decades even when a net-zero goal is in place.
- **Coal moratorium:** A moratorium restricts new coal projects but does not affect plants already operating or under construction. These units can continue emitting for many years, which limits the impact of the moratorium on achieving Paris-aligned timelines.
- **Coal phase-out policy:** A coal phase-out policy does not itself guarantee Paris alignment. These policies often depend on significant expansion of clean energy generation, which requires strong and reliable financing mechanisms. Phase-out commitments also need to be paired with science-based early retirement timelines to meaningfully limit emissions. IEA's Net Zero 2050 roadmap, which is aligned with limiting global temperature rise to 1.5°C, requires total phase-out of unabated coal by 2040.

ii The Glasgow Climate Pact was adopted at COP26 in 2021 as a package of decisions aimed at accelerating global climate action. It reaffirmed the goal of limiting warming to 1.5°C, called for strengthened national emissions-reduction plans, and urged developed countries to scale up climate finance. For the first time in a UN climate agreement, Parties agreed to work toward the phase-down of unabated coal power and the phase-out of inefficient fossil fuel subsidies, alongside completing the Paris Agreement Rulebook.

- **Economy-level international coal phase-out support:** Economy-level support can strengthen planning, policy development, and financial readiness for just transition. These frameworks often rely on voluntary commitments and funding levels that may not fully align with the cost or scale of a comprehensive coal phase-out.
- **Site-level coal phase-out support:** Support for individual plants can demonstrate practical approaches and inform just transition planning. However, site-specific projects do not necessarily represent national intent to phase out coal and may remain limited in scope.
- **Taxonomy treatment of coal:** Clear taxonomy rules can reduce greenwashing and improve clarity on coal-related activities. However, taxonomies as such do not prevent coal financing, and their impact is limited due to their voluntary nature, when they include exceptions, and/or rely on broad, principles-based criteria.
- **Carbon-pricing mechanisms:** Carbon taxes and emissions trading systems (ETS) can increase the cost of high-emission activities. Their impact depends on price levels, coverage, and implementation timelines. Low prices or narrow scope may limit behavioral or investment changes in the power sector.
- **CCS/CCUS technology:** The indicator does not assess coal-specific CCS/CCUS and instead reflects broader national development of CCS/CCUS facilities across sectors. While these technologies could mitigate emissions from coal, they may also prolong the use of coal and other fossil fuel power if viewed as a long-term abatement option.

Salt pond area at Cirebon 1 coal-fired power plant, 2023. Photo credit: Siti Hannah Alaydrus/WALHI West Java.

Table 2 Comparison of national coal phase-out ambitions and maturity levels

	Cambodia	Indonesia	Lao PDR	Philippines	Thailand	Vietnam
Net-zero target	Carbon neutral/ net zero by 2050 (conditional)	Net zero by 2060 or sooner (conditional)	Net zero by 2050 (conditional) *Does not have long-term climate change strategy	No national net-zero/ neutrality target	Net zero by 2050 (Conditional)	Net zero by 2050 (Conditional)
Coal moratorium	Announced ban on new coal power plants in 2023	New utility-scale coal plants banned in 2022 *Exceptions for coal plants already committed and certain captive coal plants	No policy	New greenfield coal plants banned in 2020 *Exceptions include coal plants already committed; existing plants with firm expansion plans; indicative projects with significant progress	No policy	Moratorium on new coal plants after 2030; until then the country will continue with implementation of its coal pipeline
Coal phase-out policy	NDC 3.0 includes coal phase-out among Cambodia's key mitigation strategies in the energy sector, but does not commit to a formal roadmap or timeline	Yes (limited to phase-out of captive coal by 2050) Presidential pledge to phase out coal power by 2040, but lacks policy backing No policy for utility-scale coal; developed selection criteria for early retirement	No formal policy	No formal policy	No formal policy; importance in national strategies (policy direction to phase out coal by 2050)	Current Power Development Plan (PDP8) roadmaps phase-out of coal by 2050, where coal plants older than 20 years are converted to cleaner energy sources and plants older than 40 years are decommissioned if fuel cannot be converted
Site-level international support	None	ETM[iii]	None	ETM[iv]	None	Included in ADB's pre-feasibility study but was not selected for ETM pilot
Economy-level international support	None	JETP, ACT-CIF	None	ACT-CIF	GIZ-led IKI-JET	JETP

iii The status in this table is as per the data cutoff timeline of November, 2025. Since the ETM has been canceled, the policy status update is provided in Annex titled: Policy status update that tracks key policy changes covered in this report from December 2025-June 2026.
iv Ibid.

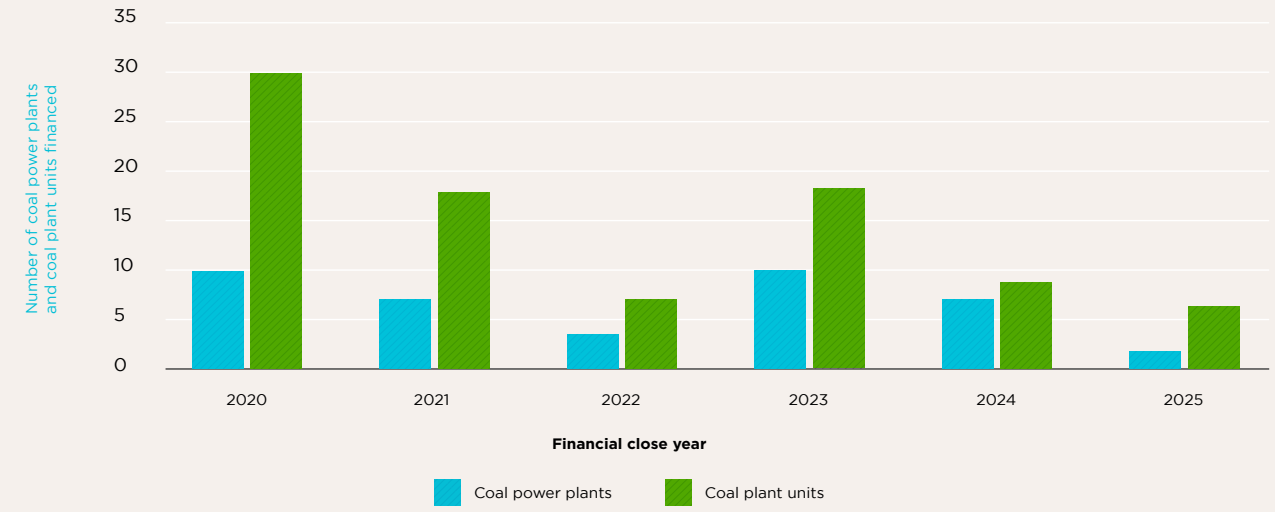
	Cambodia	Indonesia	Lao PDR	Philippines	Thailand	Vietnam
Taxonomy status	Taxonomy in development with draft under ongoing consultation	New utility-scale and captive CFPPs can be permitted as transition activities under certain criteria	Taxonomy in development	Electric power generation from fossil fuels (including coal) categorized as "red"	Electric power generation from coal categorized as "red"	Fossil fuel activities not treated as "green"; current structure does not include "red" classification
Carbon-pricing mechanisms	No domestic ETS or carbon tax	Carbon tax introduced but not implemented; only voluntary ETS	No domestic ETS or carbon tax	No carbon tax; ETS policy under development	Carbon tax planned for 2025, ETS still in development	No carbon tax; mandatory ETS covering thermal power producers
CCS/CCUS technology	No commercial CCUS facilities under evaluation, construction, or operation	1 commercial CCUS facility under construction 15 facilities in development	No commercial CCUS facilities under evaluation, construction, or operation	No commercial CCUS facilities under evaluation, construction, or operation	1 commercial CCUS facility under construction 1 facility in development	3 commercial CCUS facilities under evaluation

ACT-CIF: Accelerating Coal Transition-Climate Investment Funds; ADB: Asian Development Bank; CCS: Carbon capture and storage; CCUS: Carbon capture, utilization and storage; CFPP: Coal-fired power plant; ETM: Energy Transition Mechanism; ETS: Emissions trading scheme; GIZ-led: Deutsche Gesellschaft für Internationale Zusammenarbeit-led; IKI-JET: International Climate Initiative-Just Energy Transition; JETP: Just Energy Transition Partnership

2.3. Regional financial flow analysis: Focus countries

This study analyzes financial trends in coal plant financing and coal plant pipelines in Oxfam FFA's focus countries and other countries in Asia. Since 2020, financing has been identified for 33 coal power plants covering 82 individual coal plant units in 11 of the 15 countries assessed in this study: Bangladesh, Cambodia, India, Indonesia, Japan, Lao PDR, Malaysia, Pakistan, Philippines, Thailand, and Vietnam. As shown in **Figure 3**, the number of coal power plants and coal plant units receiving financing has declined since 2020, falling from 10 coal power plants and 30 coal plant units in 2020 to just two and seven, respectively, in 2025. This excludes one power station and two coal plant units that achieved financial close during the study period but were subsequently shelved.

Figure 3 Coal power financing activity for Asia, number of coal power plants and coal plant units, financial close year 2020–2025

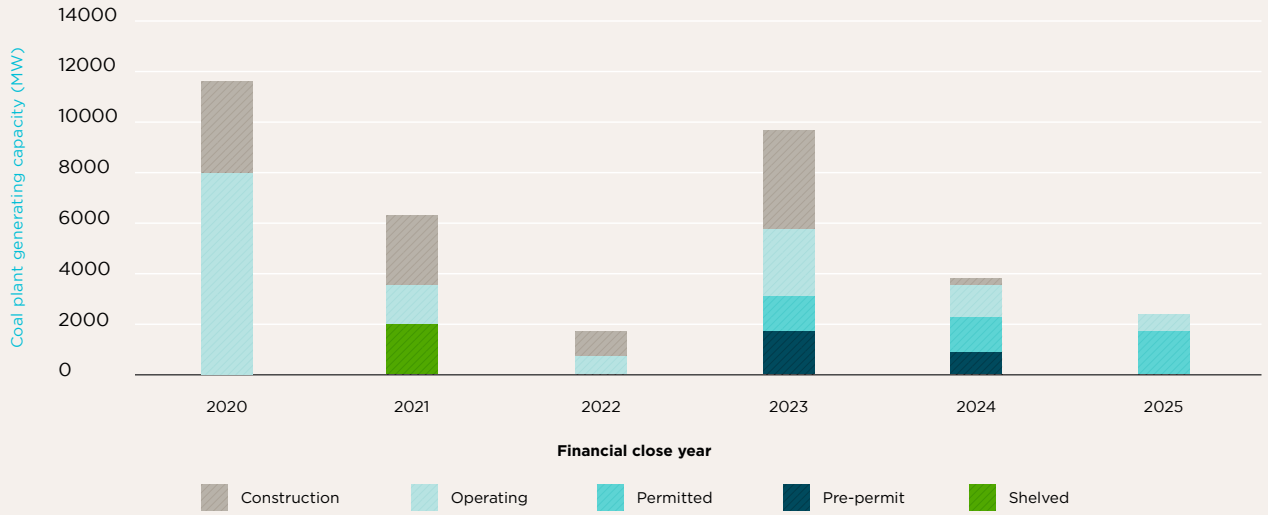


Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

the status of coal power plants in the pipeline is characterized by the continued decline of new coal-generating capacity. As shown in **Figure 4**, coal plant financing supported 11,695 MW of capacity in 2020, compared with only 2,400 MW in 2025.

Of the 35,779.5 MW of coal capacity financed since 2020, 14,890 MW are now operational and 2,000 MW have been shelved, leaving 18,889.5 MW still in the regional development pipeline.

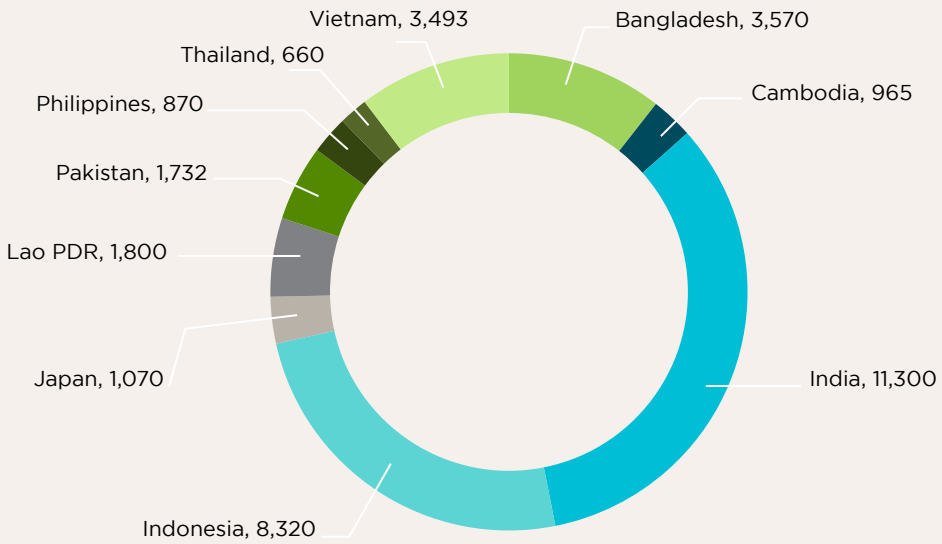
Figure 4 Coal plant generating capacity and pipeline status, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Figure 5 details coal plant financing by host country for units currently operational, in development or under construction, excluding units cancelled, shelved, or retired. Among the countries in Asia assessed, India accounts for by far the most coal capacity financed since 2020 at 11,300 MW, followed by Indonesia at 8,320 MW, while Cambodia, the Philippines and Thailand have less than 1,000 MW of new coal capacity financed each.

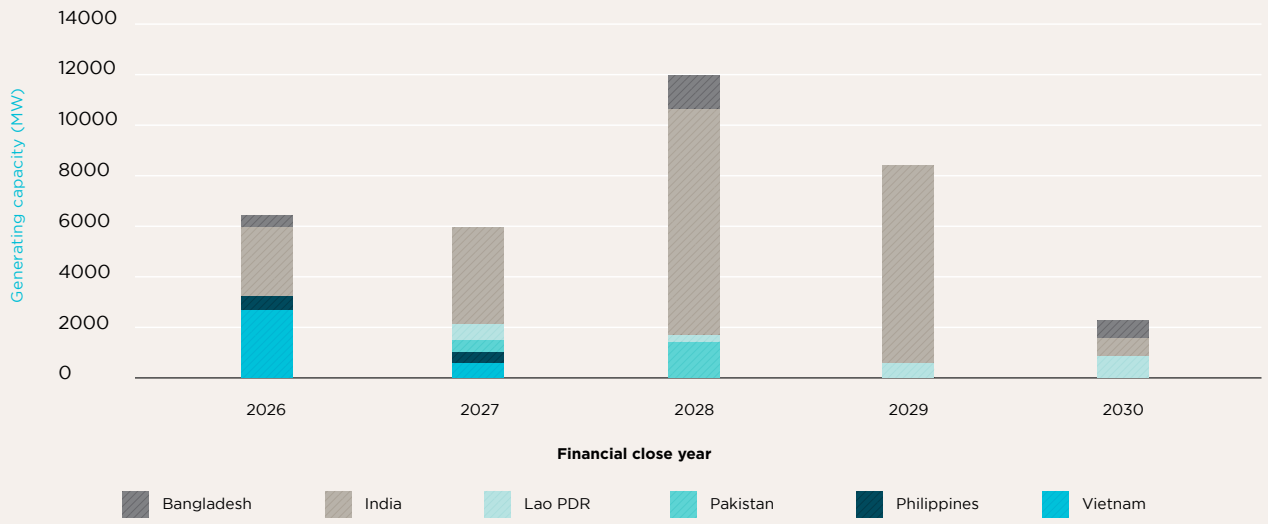
Figure 5 Coal capacity (mw) financed for units currently operational, in development, or under construction in assessed Asian countries, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

while coal plant financing is declining across the region, there are still plans or efforts underway to increase capacity in certain FFA member countries. Six of the 15 FFA members are expected to expand coal-generating capacity in the future based on currently available information—all in the next five years (see **Figure 6**). In particular, India continues to pursue large-scale expansion of its coal-generating capacity, with an additional 24,060 MW expected by the end of 2030.

Figure 6 Capacity of known coal power-plant projects in pipeline, by host country and expected operational year (2026 and beyond)



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

the following analysis is based on the number of financier involvements in coal project financing rather than financing value. Financier involvements refer to individual instances of a financier's participation in a coal project's financing transaction (e.g., loans, equity, refinancing), with each financier counted once for each distinct transaction in which it is involved. This approach tracks how often financiers were involved in financing CFPPs and provides a directional view of coal financing trends where financing values are not fully disclosed.

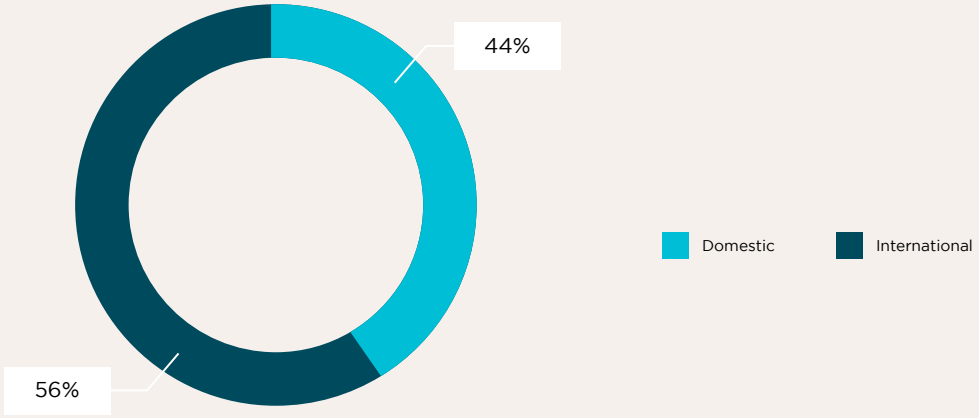
The bulk of financing for regional coal capacity expansion is from international sources (see **Figure 7**). Of the 128 financier involvements in coal plant transactions since 2020, 72 involvements (56%) were from international sources, with China alone accounting for 39 financier involvements in regional coal projects—more than half of all international financier involvements. The remaining 56 financier involvements were domestic.[v] China contributed over 30% of total financier involvements in coal project financing across the 15 countries assessed in this study, followed by Indonesia, India, Pakistan, Japan, and South Korea, as seen in **Figure 8**. Based on publicly disclosed financing values, financiers headquartered in India accounted for the largest financing value at USD 5.73 billion, followed by China at USD 5.24 billion and Japan at USD 4.91 billion. Financing values were not publicly available for all financier involvements, with non-disclosure most prevalent among Chinese financiers. The financing structure is also concentrated by instrument type, with loans accounting for most coal project financing and representing over 70% of financier involvements. Equity is the second most common financing type, accounting for nearly a quarter of involvements, while refinancing loans (5%) and bonds (<1%) make up much smaller shares.

These post-2020 findings indicate some shifts from earlier overseas coal financing patterns. A Boston University study of public financing for overseas CFPPs

v Domestic financing is classified based on the country where the financier's headquarters are located. Financial institutions headquartered in a different country are classified as international financing. The Global Energy Monitor dataset does not provide a separate published definition of domestic finance that adjusts for indirect capital flows through local intermediaries. As a result, this classification may not account for cases where domestic financial institutions themselves receive financing from international sources.

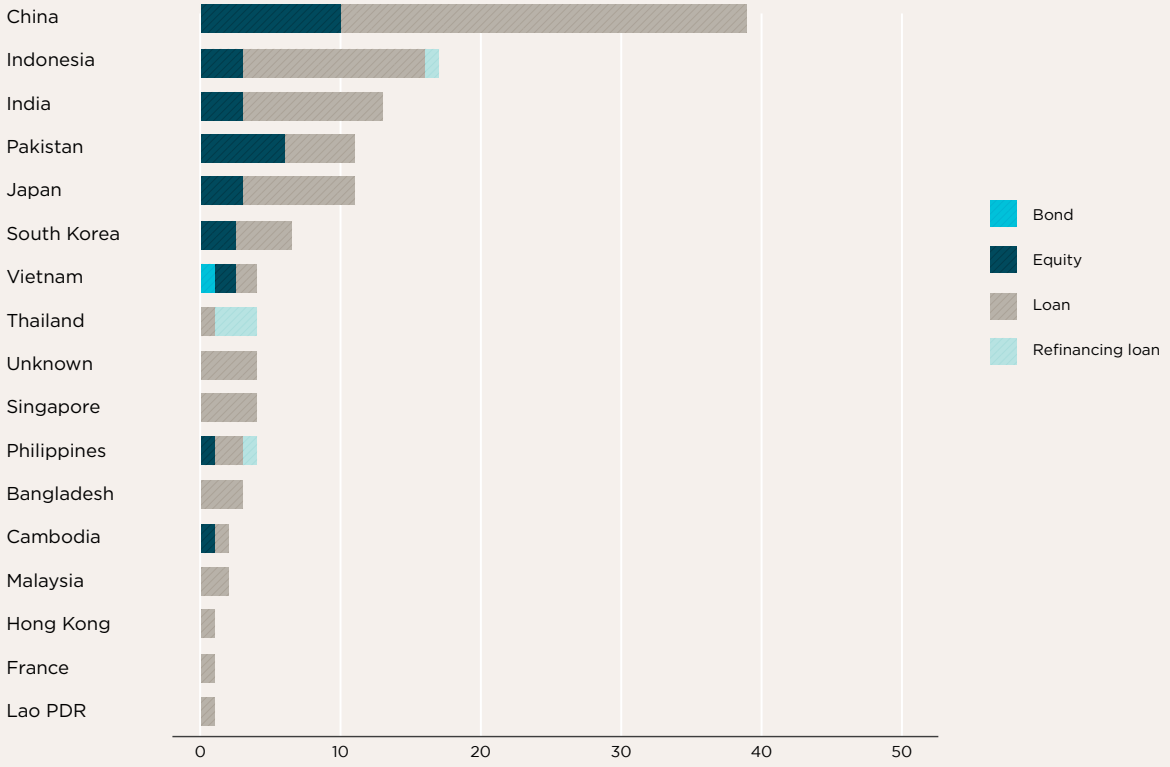
reaching financial closure between 2013 and 2018 found that Chinese public finance institutions accounted for the largest financing value at USD 15.63 billion, followed by Japan at USD 9.56 billion and South Korea at USD 3.6 billion.[20]

Figure 7 Proportion of domestic vs. international coal power financing, based on financier involvements in 15 assessed countries, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

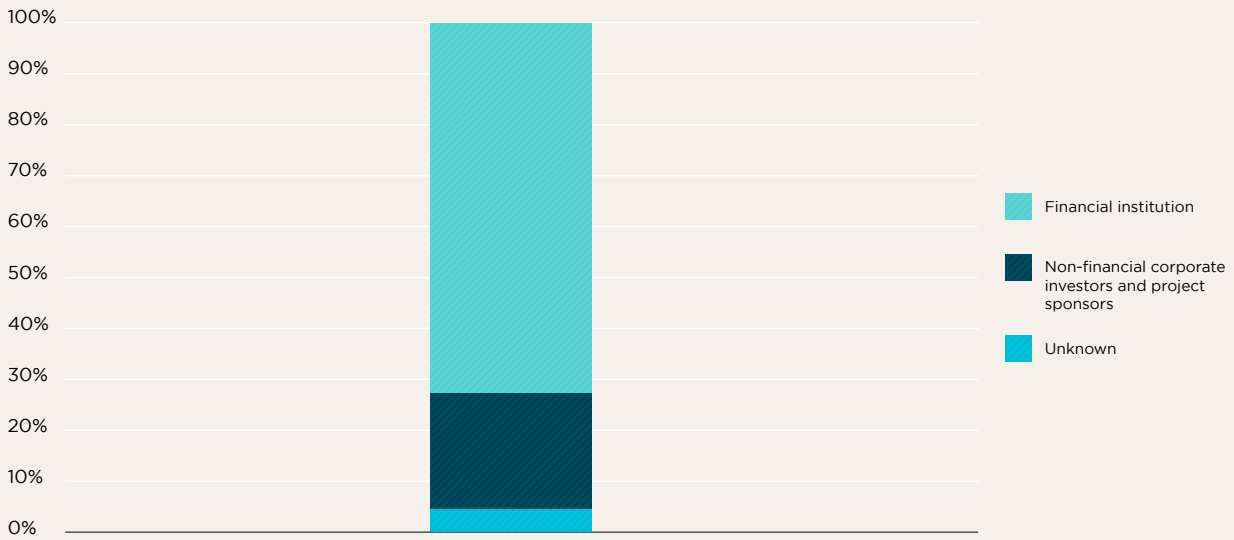
Figure 8 Coal power financing activity, financier involvements by financing country and financing type in 15 assessed countries, financial close year 2020–2025 (USD billion)



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

while most coal project financier involvements are financial institutions, a significant portion of coal financing in the region is from non-financial corporate investors and project sponsors. As shown in **Figure 9**, financier involvements between 2020 and 2025 included both financial institutions and non-financial corporate investors and project sponsors, with financial institutions accounting for the majority of recorded involvements (72%). A smaller but still material share (23%) came from non-financial corporate actors, including utilities, industrial groups, mining companies, and project sponsors that supported coal projects through equity participation or sponsor backing. Notably, nearly 5% of financier involvements were not identified in the GEM database, highlighting a need for greater transparency in coal project financing disclosure.

Figure 9 Coal power financing activity, share of financier involvements by actor type in 15 assessed countries, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

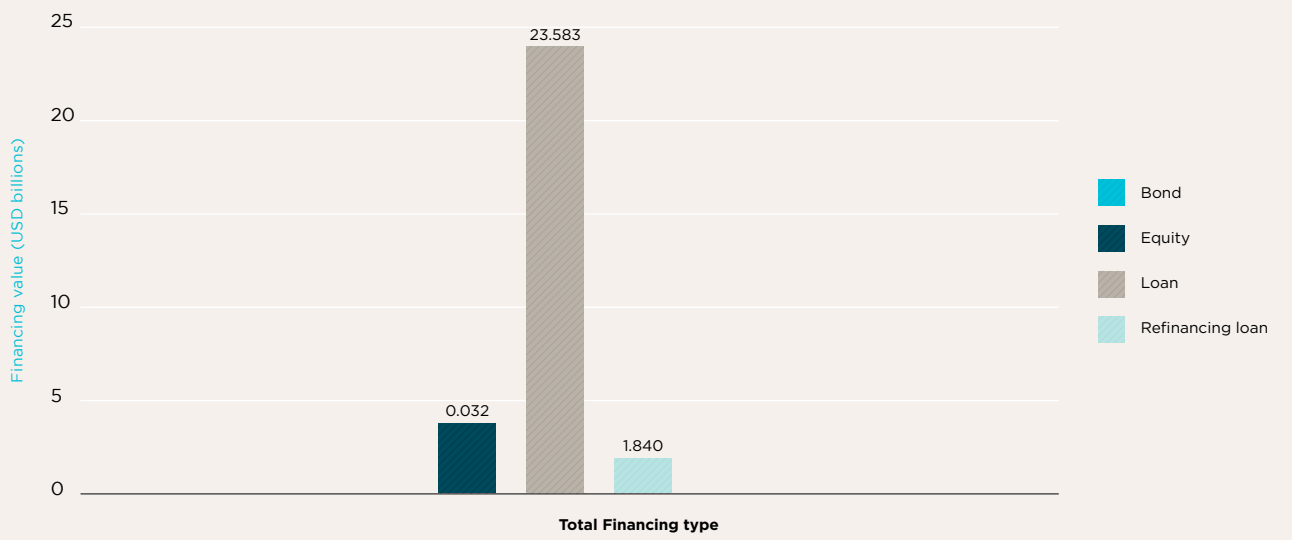
the following analysis draws on available financing value data for coal projects in the region reaching financial closure between 2020 and 2025. **Figure 10** illustrates the monetary scale of coal project financing in the region. As observed previously, loans make up the majority of coal project financing, totaling USD 23.583 billion during the study period and accounting for 82% of all disclosed financing value. Equity, while accounting for 23% of financier involvements in coal project financing, represents only 12% of total financing value at USD 3.45 billion. Refinancing loans account for an additional USD 1.84 billion in financing (6%), despite representing only 5% of financier involvements during the study period. Bonds contribute a minor share at USD 0.03 billion.

It should be noted that this value-based analysis reflects only disclosed financing during the study period. Of the 128 recorded financier involvements in coal project financing between 2020 and 2025, 33 (over 25%) did not disclose financing values. Of these, 26 are financial institutions, which are likely to have provided higher-value loans. Non-disclosure was most prevalent among financiers headquartered in China, which accounted for 19 of the 33 financier involvements without publicly disclosed financing values, followed by Indonesia with five and Singapore with three. As a

result, the total financing values presented here are likely understated.

This underscores the significant role that financial institutions play in financing coal projects in the region, particularly through the provision of debt. As the primary providers of capital at scale, financial institutions are a key focus of this report given their influence over the continuation or phase-out of coal power through their financing decisions.

Figure 10 Coal power financing value, total financing value by financing type in 15 assessed countries, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

since 2020, the decline in coal plant financing across the 15 countries in this study is consistent with major policy shifts among traditional international coal financiers and regional institutions. In particular, China announced in 2021 at the 76th session of the United Nations General Assembly that it would cease building new overseas thermal coal projects, instead focusing on supporting green and low-carbon energy projects.[21] South Korea similarly pledged to end all new public financing for overseas coal power projects in April 2021.[22] Earlier in July 2020, Japan committed to a narrower plan to restrict overseas coal financing in countries that do not have a decarbonization strategy and committed to ceasing overseas coal financing by the end of 2021, joining the rest of the G7 countries.[23] However, analysis from GEM in 2022 revealed that Japan was still supporting coal projects in Indonesia and Bangladesh.[24]

Regional and multilateral banks have also introduced restrictions on direct coal financing. As key financiers, multilateral development banks (MDBs) play a critical role in accelerating coal phase-out across Southeast Asia by reshaping financial flows, withdrawing support from the coal value chain, mobilizing concessional capital for early plant retirement, and driving just transition-aligned reinvestment. For example, the Asian Development Bank (ADB) announced in its 2021 Energy Policy that it will not support the coal value chain, including mining, processing, storage, transportation, and power generation.[25] This policy expanded following an internal review in 2025 to include support for the early retirement and decommissioning of CFPPs, including site remediation and redevelopment, improvements to power dispatch to reduce high-emitting power generation, and the creation of new jobs through comprehensive just

transition planning in cooperation with local communities and stakeholders.[26] The World Bank announced in 2013 that it would only provide financing of greenfield coal power projects in rare circumstances, such as meeting basic energy needs in countries without feasible alternatives.[27] While this moratorium stopped direct coal plant financing in most circumstances, recent analysis revealed coal financing from financial intermediary clients still persists.[28]

Natural gas as a transition fuel

As ASEAN economies progress along their energy transition pathways, natural gas remains a fossil fuel option viewed by policymakers as a bridge between coal and renewables, where intermittent sources of energy such as solar and wind are deemed less reliable for grid stability.[29] The appeal of natural gas lies in its lower GHG emissions compared with coal, its dispatchability and existing infrastructure. However, its role in Paris-aligned pathways is significantly challenged by lock-in risks, ongoing methane leakage, and the practical challenges of meeting the conditions required for 1.5°C alignment. The IEA underscores that reliance on natural gas cannot meet a 1.5°C trajectory unless paired with stringent methane emissions mitigation, carbon capture, and a clear phase-down strategy.

Recognizing the rising risks associated with climate change, including human rights challenges, health impacts, and environmental degradation, Fair Finance International (FFI) outlined a set of key elements for financial institutions' fossil fuel policies in its 2025 methodology report.[30] These include the following elements relating to oil and gas:

- Companies engaged in new oil and gas exploration and development are excluded from investment and financing.
- The financial institution has a time-bound phase-out strategy for oil and gas that is aligned with a 1.5°C scenario.
- Companies active in the extraction of oil from tar sands are excluded from investment and financing.
- The financial institution excludes financing and investing in companies active in oil and gas extraction for more than 30% of their revenues.
- The financial institution excludes financing and investing in companies active in oil- and gas-fired power generation for more than 30% of their electricity generated.
- The financial institution fully excludes financing and investing in companies active in oil and gas extraction and/or fossil fuel-fired power generation.

However, project-level data show that natural gas and LNG infrastructure continue to expand across the region, indicating that gas remains a prominent part of near-term energy planning. **Figure 11** depicts a continued build-out of natural gas power capacity among assessed countries in the region, with more than 125 GW of new natural gas projects either announced, in pre-construction, or under construction for 2025–2030, even as coal projects decline. Beyond 2030, additions with known start dates taper sharply. Overall, 15.4% of all planned capacity (including announced, pre-construction, and construction phases) lack confirmed start dates, signaling long-term uncertainty. **Figure 12** shows similar trends for natural gas terminal infrastructure, with strong short-term momentum but a large share of speculative or proposed projects.

Figure 11 Generation capacity of known natural gas power plant projects by status and expected operational start year, 2025 and beyond

Source: GEM, Global Gas Finance Tracker, latest available data (September 2025).

Figure 12 Capacity of known liquified natural gas terminals by project status and expected start year, 2025

Source: GEM, Global Gas Finance Tracker, latest available data (September 2025).

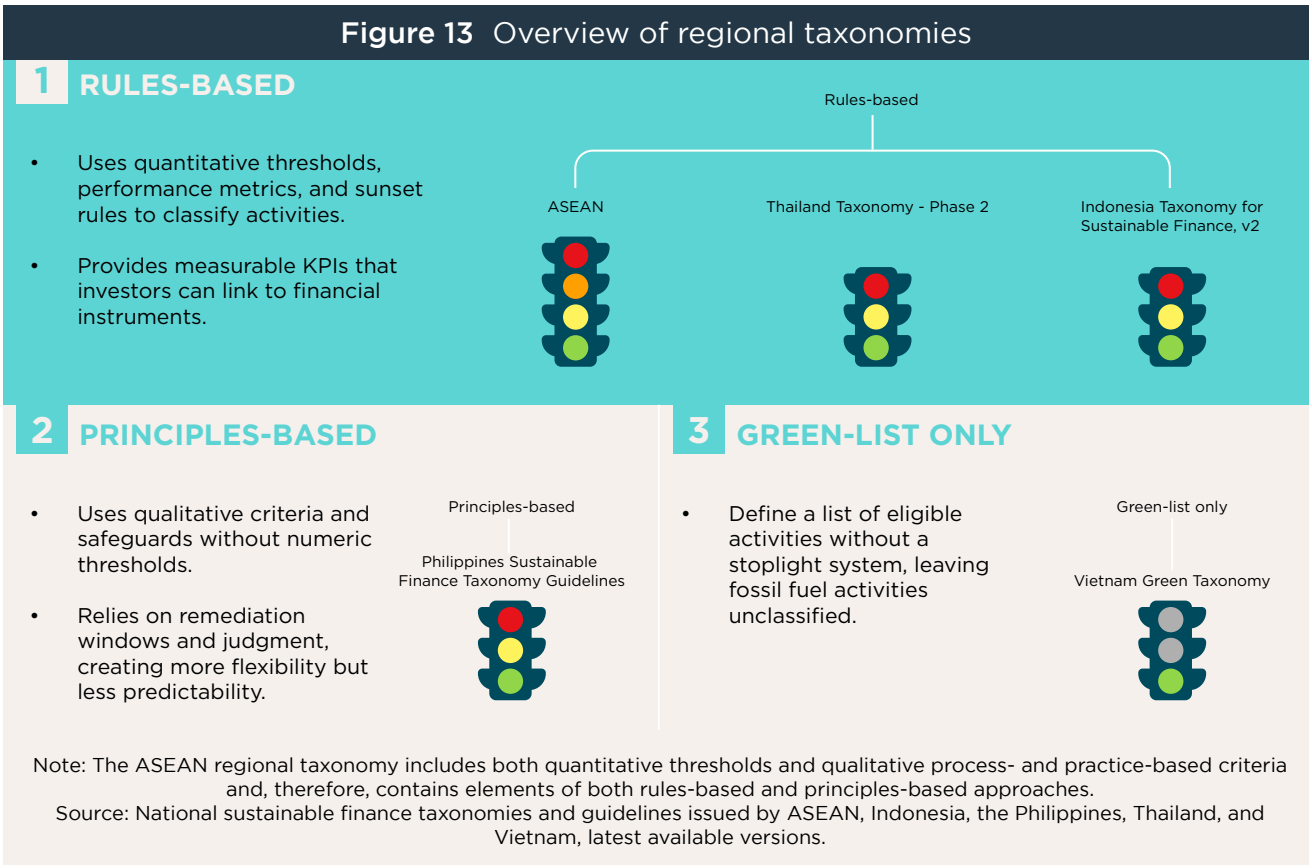
market volatility, elevated prices, and tightening climate commitments compound financial risk.[31] Under current pledges, natural gas use is projected to fall sharply by 2030, and the IEA's Net Zero scenario anticipates most export projects will struggle to recover capital.[32] Civil society and finance coalitions also stress that continued reliance on gas risks locking in emissions and undermining just transition goals.[33] Global climate commitments are expected to strain the viability of natural gas as a long-term asset. LNG projects currently in development and under construction are unnecessary net-zero alignment, and, if completed, would result in LNG export capacity utilization declining to 50% by 2035, increasing stranded asset risks.[34]

Emerging alternatives, such as hybrid systems combining battery storage with solar and wind, are narrowing cost gaps for dispatchable power. Pumped hydro remains dominant for long-duration storage, but further innovation and policy support are needed.[35] Overall, continued reliance on natural gas carries material climate and investment risks, particularly given methane leakage and life-cycle emissions that can approach coal levels if best practices are not fully enforced.[36]

2.4. Overview of regional and national taxonomies

Establishing a taxonomy[vi] is considered an important benchmark in developing an environmentally responsible financial ecosystem. Such frameworks help countries, companies, and projects align with regional and national sustainability goals and NDCs. While not mandatory, complying with national or regional taxonomies can open up access to new, potentially lower-cost capital, including through green financing.[37] Taxonomy compliance can be attractive to investors, helping businesses position themselves advantageously in the market, mitigate reputational risks, and enhance regulatory preparedness by identifying and managing climate change risks in operations early. Investor interest in taxonomy compliance will vary based on strategic priorities, including continued engagement in coal-related infrastructure.

Figure 13 Overview of regional taxonomies



Note: The ASEAN regional taxonomy includes both quantitative thresholds and qualitative process- and practice-based criteria and, therefore, contains elements of both rules-based and principles-based approaches.
Source: National sustainable finance taxonomies and guidelines issued by ASEAN, Indonesia, the Philippines, Thailand, and Vietnam, latest available versions.

vi A taxonomy is a classification framework that defines criteria for economic activities contributing to environmental, social, or sustainability objectives. It serves as a common language for investors and businesses to identify which activities are considered sustainable and, in some cases, aligned with long-term climate and net-zero goals.

in ASEAN, version 4 of the regional ASEAN Taxonomy for Sustainable Finance provides the overarching framework for sustainable finance classification.[38] The taxonomy adopts a hybrid approach, combining a principles-based foundation framework with a rules-based classification system.

In addition to the regional taxonomy, four of the six focus countries—Indonesia, the Philippines, Thailand, and Vietnam—have issued national taxonomies, while Cambodia and Lao PDR are in the draft consultation stage.[31]

Indonesia's and Thailand's taxonomies are considered more mature as they are based on the ASEAN rules-based framework, which uses quantitative thresholds, performance metrics, and sunset rules[vii] to classify activities.[39] These two countries were among the first in ASEAN to adopt official green financing frameworks, in 2022 and 2023 respectively, and have continued to refine them to align with international standards. Cambodia, Lao PDR, and Vietnam have not yet announced official taxonomy categories for fossil fuels, but they are expected to align with the ASEAN Taxonomy once published.

2.5. Taxonomy treatment of fossil fuels

Figure 14 Classification and criteria for coal to qualify for green financing under ASEAN and national taxonomies

ASEAN	**Green:** CFPP phase-out by 2040; financing closed before 2023; 35-year limit on operational lifespan; verified by internationally recognized body that the coal plant delivers positive absolute emissions reductions over its lifetime compared with a no-intervention baseline Amber: Time-bound, declining CFPP emission pathways to 2050 sunset; post-sunset becomes red
Indonesia	**Green:** Early retirement of coal plants (same as ASEAN criteria) **Transition:** New capital coal plants: only if committed pre-2022 RUPTL* or captive coal built before 2030 and at least 35% emissions cut within 10 years; cease by 2050 with a transition plan **Transition:** Early retirement of coal plants (same as ASEAN criteria)
The Philippines	**Amber:** Retirement/repurposing of CFPPs may be eligible when framed as enabling mitigation, but no numeric thresholds or explicit sunset tables
Thailand	**Red:** Coal-fired power (no green/amber pathway)
Vietnam	Current taxonomy includes list of **green projects only; no fossil categories** included.

*Rencana Usaha Penyediaan Tenaga Listrik, Indonesia's strategic Electricity Supply Business Plan.

The overall trend is a red to amber classification for any new coal projects across active taxonomies, meaning they will not be eligible for sustainable financing or under strict conditions. Only early retirement or decommissioning would qualify under green or amber if strict criteria are met. The rules-based taxonomy also applies sunset rules to retire the amber code post-transition to avoid open-ended labels.

The ASEAN Taxonomy mandates a CFPP phase-out by 2040 for plants financed before 2023, with a 35-year limit on operational lifespan. For coal projects

vii Sunset rules set a time limit for how long activities that do not yet meet green standards can remain eligible under a taxonomy. They outline when transitional or intermediate practices must either meet higher performance thresholds or lose their classification.

to achieve green status, it requires reputable third-party verification that early retirement results in positive absolute emissions reductions that would not be achieved if the plant were to operate for its full lifespan. Amber projects are those that have high potential but are not optimized for climate goals and are eligible for certain forms of transition financing. To qualify, these projects must have time-bound exit pathways until 2050; any post-sunset activities would turn them "red". Indonesia broadly aligns with ASEAN classification and technical screening criteria (TSC) for early coal plant retirement, however, exceptions were made allowing for new industrial captive coal plants constructed by 2030.

In general, the region is seeking practical solutions and shows clear signals of moving from a complete coal prohibition toward codifying early retirement pathways. Unlike the EU Taxonomy, which makes exiting coal a prerequisite for accessing green financing, the ASEAN and Indonesia taxonomies allow financing under strict timelines and TSC, reflecting the regional context of coal and financial constraints of ASEAN member states.[40] This approach enables investment and financing mechanisms that support managed coal phase-out through early retirement, while still requiring independent verification that phased-out coal plants achieve absolute emissions savings compared with not phasing out to ensure credibility and alignment with global standards for "green" coal phase-out labels. At the same time, specific policy provisions warrant scrutiny. Indonesia's captive coal allowance, while subject to strict conditions, remains a potential loophole that could slow coal phase-out efforts. This inclusion in version 2 of its taxonomy has been viewed by some stakeholders as a step backward, with critics arguing that the provision is not science-based and is misaligned with the Paris Agreement.[41]

Natural gas is increasingly treated as a conditional, time-bound transition fuel in ASEAN and national taxonomies, rather than as a long-term solution. Where natural gas is included, frameworks generally set strict emissions thresholds, require methane monitoring and leak detection, and include phase-down requirements or sunset dates. "Green" eligibility typically requires lifecycle emissions below 100 gCO_2e/kWh, while "amber" categories allow higher emissions only where facilities meet defined emissions limits and phase-down timelines.

Country approaches vary across the region. Indonesia allows conditional treatment for natural gas based on emissions performance and transition planning requirements. Thailand applies progressively tightening emissions thresholds, while the Philippines classifies fossil gas-related activities as "red." Vietnam's current taxonomy includes a list of green projects only, with no fossil fuel categories included. Overall, these rules indicate that taxonomy frameworks are placing narrower and more conditional boundaries around natural gas, shaping investment criteria toward lower-emission alternatives and reducing the risk that gas assets are treated as long-term transition solutions.

2.6. Examples of financing models

This section highlights three flagship initiatives on coal phase-out/-down transition in Southeast Asia and beyond: Indonesia's Just Energy Transition Partnership (JETP), the Philippines' Energy Transition Mechanism (ETM), and Chile's national coal phase-out initiative. These early retirement models were chosen as they represent examples of mobilizing large-scale finance and international collaboration in a developing country where coal production and utilization continue to be part of the energy mix.

Just Energy Transition Partnership: Selection criteria for early coal retirement

Indonesia's Road Map for the Electricity-Sector Energy Transition, published in April 2025, outlines criteria and methodologies for early retirement of CFPPs, mandating action by the state utility, Perusahaan Listrik Negara (PLN), which generates the majority of the country's electricity.[42] The work builds on Indonesia's Just Energy Transition Partnership (JETP) agreement in 2022, which laid the foundation for a managed, financed transition away from fossil fuels toward renewable energy. Under the JETP, Indonesia secured USD 20 billion in blended financing from international partners and development finance institutions (DFIs) to support a structured coal phase-out.[43]

The roadmap builds on the selection criteria of the Presidential Regulation (PR) 112/2022: age, utilization, technology support, GHG emissions, economic value, and availability of funding.[44] The regulation adds another three criteria: system reliability, impact on electricity tariffs, and just energy transition. The roadmap also introduces a business judgment rule to protect company directors and executives from liabilities linked to early coal retirement, assuming decisions are made in good faith.[45]

Indonesia's initiative is Southeast Asia's first to standardize early coal retirement criteria, offering a replicable model for others. However, there has been criticism of the viability and equitability of its approach to selecting CFPPs for closure or early retirement. For instance, the weighted scoring system puts disproportionate emphasis on financing secured for plant closure (27%) while emissions criterion is only worth 9.3%.[46] It was argued that emissions should be the most important factor when considering roadmap plans for peak emissions in 2037. Additionally, the framework does not cover just transition elements and, therefore, lacks mechanisms for local stakeholders to participate in decision-making processes.[47] Despite certain shortcomings, this regulation represents a major step in Indonesia's coal phase-out and sets a regional benchmark.

Energy Transition Mechanism: Transition credits for early retirement

ACEN, a private power company and renewable energy arm of the Ayala Group in the Philippines, is leading the world's first pilot under ADB's Energy Transition Mechanism (ETM) to retire its 246 MW South Luzon Thermal Energy Corporation (SLTEC) coal power plant in Batangas.[48] Initially slated for 2040, ACEN expedited the retirement to 2030, aiming to avoid 69 million tonnes of CO_2 emissions.

To finance this, ACEN aims to sell transition credits based on avoided GHG emissions, offsetting lost earnings from SLTEC, estimated at USD 48–75 million annually. ACEN estimates credit values must reach USD 16–25 per tCO_2 to break even, rising to USD 18–27 when factoring in the USD 300–450 million needed for replacement solar, wind, and battery infrastructure.[49]

The transaction integrates three core elements: closing fossil fuel assets, transitioning to clean energy alternatives, and addressing the needs of workers and communities. ACEN has developed a just transition plan to support the process, which incorporates data on worker retirement timelines, relocation to renewable energy projects, and reskilling requirements.

While Indonesia is piloting selection criteria for early coal retirement, ACEN's ETM pilot and the transition credit scheme tackles financing directly and provides a case for coal asset transformation in the region. ADB is now exploring the use of transition credits for the early closure of a 200 MW coal plant in Mindanao, Philippines.[50] In

2025, the methodologies for the transition credit scheme were finalized by Verra.[51]

Critics argue that transition credit may reward coal plants nearing economic obsolescence and stress the need for robust just transition metrics.[52] There are also concerns about transparency, as closure decisions are often guarded by non-disclosure agreements (NDAs).[53] In a joint 2023 discussion paper, Fair Finance Asia (FFA) and the NGO Forum on ADB highlighted several risks and limitations associated with the ETM.[54] The analysis identified concerns related to transparency and governance, including reliance on confidential agreements, limited public disclosure, weak stakeholder consultation, and uncertainty over the application of safeguards and accountability mechanisms during coal plant retirement. It further noted misalignment with Paris Agreement phase-out timelines, risks of fossil fuel lock-in, increased public debt exposure, and insufficient protections for workers, communities, and civic spaces.

Multi-stakeholder coordination as an enabler of coal phase-out

To achieve optimal outcomes and mitigate potential risks of the energy transition, including coal phase-out, processes must be guided by continuous coordination across multiple stakeholder groups, including national governments, sectoral ministries, state-owned utilities, private companies, financial institutions, CSOs, and local communities. Open communication and clearly defined roles within and between stakeholder groups can play a significant role in mitigating negative social, environmental, and economic impacts while also maximizing positive outcomes, including enhanced system reliability and regional energy security aligned with Paris Agreement pathways.

As outlined in this report, several nations in the Asia region remain reliant on coal power, and the coal value chain plays a critical role in many national labor markets. Equitably transitioning from coal power requires recognizing the historical role of coal in the region beyond an energy context and how green energy systems can maximize benefits for communities and the environment. To achieve these outcomes, all stakeholders must have the opportunity to communicate and affect decision-making on transition policies and initiatives.

Coal phase-out is not unique to Asia, therefore, there are lessons to be learned from successful multistakeholder coal phase-out efforts in other regions.

Chile: Negotiating a coal phase-out pathway with the private sector[55]

In 2019, nearly 40% of electricity generation in Chile was derived from coal. The country hosted 28 coal-fired power units totaling 5 GW, which were primarily controlled by four private entities. This resulted in high concentrations of coal workers in certain regions of the country.

Chile's government launched a national decarbonization initiative in 2018 aimed at halting the development of new unabated coal power plants and establishing a working group to design a coal exit strategy, including shutdown conditions and a timeline. The working group was comprised of stakeholders from different

backgrounds and areas of expertise, who engaged in the process and contributed according to their respective roles. They included:

- Ministry of Energy and Environment (coordinator)
- Four private coal power companies
- Other ministries
- Industry associations
- Consumer associations
- Academics
- NGOs
- Municipalities
- Intergovernmental agencies
- National electricity coordinator

Following the consultation process, coal power plant asset owners voluntarily submitted coal exit plans, which placed asset owners in bilateral, binding protocols with the government. The coal exit strategy was divided into two stages, with the first stage covering coal plants to be retired by 2025 and the second stage covering coal plants to be retired by 2040. Voluntary actions by energy companies accelerated the phase-out process, and Chile subsequently advanced its coal exit timeline by 10 years, setting a target to phase-out coal power by 2030.

Coal plant owners were not directly compensated for early retirement. However, coal plants with strategic reserve status were eligible to receive up to 60% of capacity payments for a period of up to five years. MDBs provided loans to incentivize early plant closure by linking financing terms to clean energy replacement and verified emissions reductions.

Chile's experience demonstrates how voluntary negotiation mechanisms can be used by governments to facilitate coal phase-out through direct engagement with coal asset owners, and the critical role MDBs play in facilitating early coal retirement through lower-cost capital in the form of green and sustainability-linked loans. It also highlights the role of multiple stakeholder groups in supporting the energy transition and indicates that structured communication and access to decision-making processes can contribute to effective outcomes. This case study further demonstrates that while national-level coordination can be effective, targeted local efforts are necessary to reach affected people in rural coal-dependent areas.

3

COUNTRY-LEVEL ANALYSIS: POLICY AND FINANCIAL FLOWS

Displaced farmer plowing field following land eviction due to the construction of the Cirebon coal-fired power plant. Photo credit: ResponsiBank Indonesia.

3.1. Focus countries

3.1.1. Cambodia

According to most recent IEA data, coal accounts for 58.7% of Cambodia's electricity generation, an increase over a 10-year period.[56] Coal entered and remains in Cambodia's mix mainly to provide steady power output alongside seasonal hydropower and rising demand (for industrial expansion and to reduce the energy poverty gap), but policy direction points to a growing role for renewables and imports.[57] The country's reliance on fossil fuels is reflected in its recent NDC, which has yet to align with a full coal phase-out.

Energy goals, plans, and coal policy timeline

In December 2020, the Cambodia Ministry of Environment's (MoE) **NDC** submission to the United Nations Framework Convention on Climate Change (UNFCCC) stated a conditional target to reduce national GHG emissions by 41.7% (40% in the energy sector) by 2030 against business as usual (BAU), with no unconditional commitments.[58]

The **Long-Term Strategy for Carbon Neutrality** (LTS4CN) was announced a year later to fulfil the listed NDC goals, including net zero by 2050.[59] The proposal outlined the use of LNG as a transitional fuel and positioning 35% renewable energy sources as carbon-neutral pathways. The remaining 28 $MtCO_2e$ would be neutralized by large carbon sinks from restructuring land use, guided by the forestry and land use sectors.

In addition, the **Power Development Masterplan 2022–2040** published by the Ministry of Mines and Energy (MME) in September 2022 details power development scenarios to 2040.[60] The plan includes introducing 900 MW natural gas capacity by 2040, scaling variable renewables to displace power generated from fossil fuels, and achieving further energy reductions through demand-side energy-saving measures aligned with the National Energy Efficiency Policy. However, the plan still maintains coal alongside hydropower as the backbone of energy generation, projecting about 2.9 GW of coal-based electricity generation capacity by 2040.

In 2023, Cambodia's Prime Minister formally declared that Cambodia would not build any new coal-fired power plants (CFPPs).[61] This **moratorium** followed the government's decision to halt construction of a proposed 700 MW CFPP in Koh Kong province, reflecting recognition of the country's responsibility to protect its people and the environment. Instead, Cambodia has indicated that it will prioritize energy efficiency improvements, grid expansion, and renewable energy development, supported by international financing partners, particularly from China.[62]

Cambodia's **NDC 3.0** was submitted in August 2025, raising its conditional GHG emissions reduction goal to 55% and committing to an unconditional goal of 16% and 54.3% in the energy sector by 2035, setting a precedent.[63] Cambodia's conditional goals depend on the availability of international financial, technological, and capacity-building support, as well as strong cooperative partnerships. The country also committed to expanding the use of renewables to 72% unconditionally. Its NDC 3.0 includes early retirement of 150 MW of coal-fired capacity as a mitigation measure, although it does not commit to a full coal phase-out, as indicated by its current coal-fired capacity of 1,300 MW.[64] It also plans to explore the possibility of transitioning CFPPs, including to biomass co-firing and natural gas. No clear roadmap or timeline have been provided, although it is indicated that these initiatives are likely to target old, inefficient CFPPs.

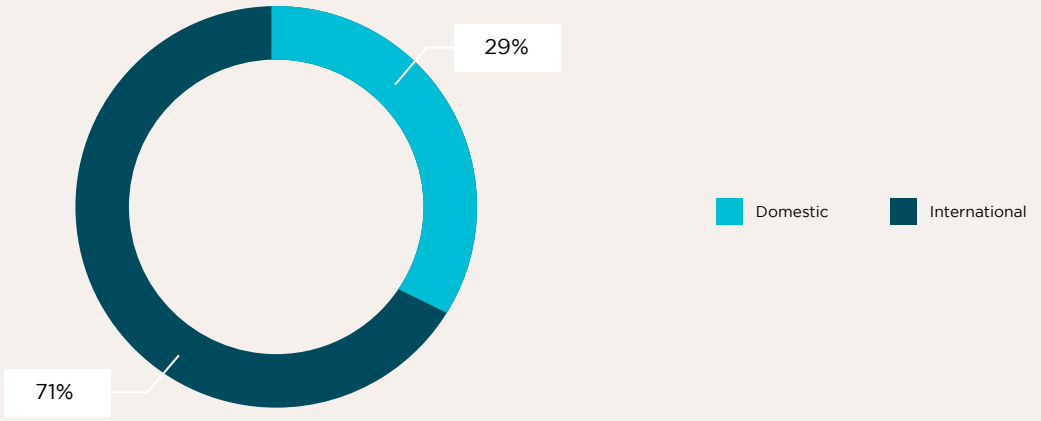
Related financial policies and initiatives

Cambodia's Green Taxonomy remains a draft under consultation.[65] Under its NDC 3.0, the taxonomy will be developed to align with international and ASEAN frameworks, with a focus on improving green investment capacity for financial institutions.

Financial flow analysis

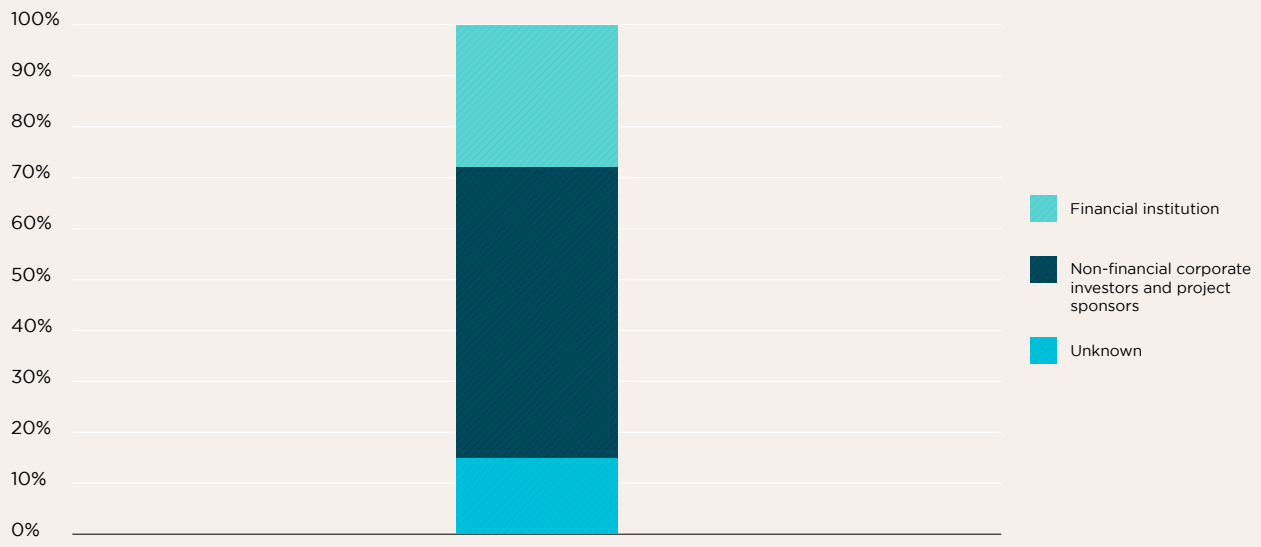
Financiers involved in Cambodia's CFPPs from 2020 to 2025 were predominantly international, accounting for five (71%) of the seven financiers supporting four coal units across two power plants in 2020 (see **Figure 15**). Financiers from China were the largest group, accounting for three of the seven financiers, followed by two from Cambodia. Most financier involvements were equity contributions from four non-financial corporate investors and project sponsors. Loan financing was provided by one domestic and one international financial institution, as well as one undisclosed entity (see **Figure 16** and **Figure 17**).

Figure 15 Proportion of domestic vs. international coal power financing, based on financier involvements in Cambodia, financial close year 2020–2025



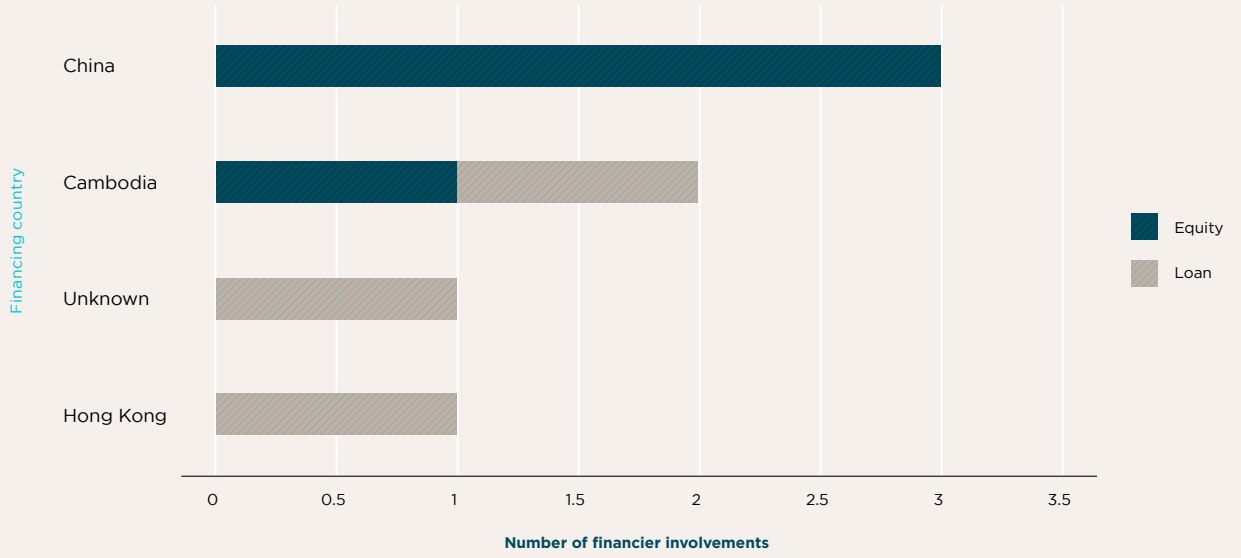
Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Figure 16 Coal power financing activity, share of financier involvements by actor type in Cambodia, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

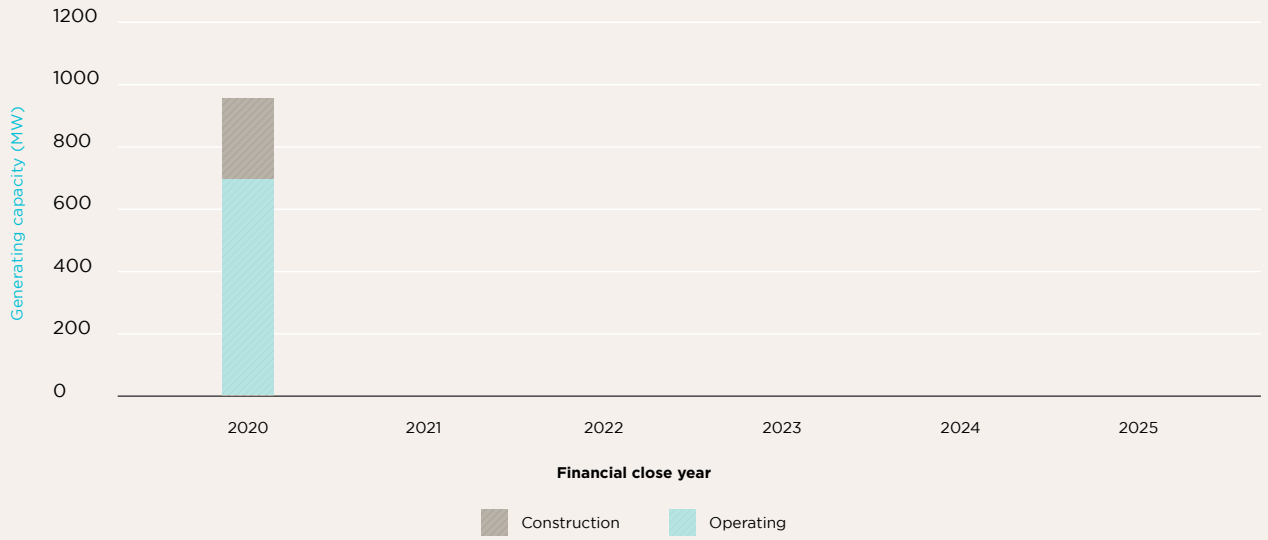
Figure 17 Coal power financing activity, financier involvements by financing country and financing type in Cambodia, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Financing at both CFPPs reached financial close in 2020, with no additional financing closed through 2025. Financing in 2020 was associated with 965 MW of coal capacity with 700 MW currently in operation while the remaining is under construction (see **Figure 18**).

Figure 18 Coal-generating capacity (mw) by status and financial close year in Cambodia, 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Cambodia's coal plant financing since 2020 reflects its long-standing dependence on international investors for large power projects. A review of the electricity infrastructure reveals most of the country's generating capacity is owned by either foreign or joint venture independent power producers (IPPs), with investments for large plants led by China. An assessment by PwC shows that limitations in domestic long-term capital position Cambodia for international investment.[66] This aligns with coal projects reaching financial close in 2020, as the financing of Sihanoukville and Oddar Meanchey were joint efforts of Cambodian firms and Chinese state-owned enterprises.[67] Shifts in domestic planning and international policies coincide with a lack of coal plant financing after 2020; China announced a commitment to not fund new coal overseas in 2021, and Cambodia's most recent NDC establishes a moratorium on new coal investments.[68]

3.1.2. Indonesia

Fossil fuels account for nearly 75% of Indonesia's electricity generation.[69] With 69.1% electricity generation coming from coal, Indonesia is the most coal-reliant country in this study. It continues to rely heavily on coal as a steady, affordable source of electricity for its economic expansion and electrification of households for a fast-growing population and industry.[70] This is supported by domestic supply and long-term contracts that have kept CFPPs running (but has seen recent constraints with policy shifts that steer future capacity toward renewables).[71] It is also the largest coal exporter in the world, primarily supplying thermal coal to China and India.[72]

Energy goals, plans, and coal policy timeline

In 2021, Indonesia released its **Updated NDC**, which maintained 41% conditional and 29% unconditional carbon reduction targets, focused on the expansion of renewables, and indicated intentions to implement clean coal technologies once they were commercially viable.[73] The country also published its **Long-Term Strategy (LTS) for Low Carbon and Climate Resilience 2050**, which formally established Indonesia's longer term climate goal of net zero by 2060 or sooner, and emphasized a shift from coal to natural gas and renewables.[74]

The **Enhanced NDC** raised near-term emissions reduction ambitions to 43.2% conditionally and 31.9% unconditionally by 2030.[75] It explored emissions reduction benefits associated with implementing coal efficiency upgrades and clean coal technology, which were quantified to reduce 358 $MtCO_2e$ unconditionally and 446 $MtCO_2e$ conditionally in 2030 relative to BAU. To align with a Paris-consistent 1.5°C pathway, Indonesia's NDC outlines a scenario in which national GHG emissions peak in 2030 at approximately 1.24 $GtCO_2$-eq, before declining steadily to around 0.54 $GtCO_2$-eq by 2050.

Prior to the Enhanced NDC, Indonesia adopted a **coal moratorium** under **Presidential Regulation No. 112/2022**.[76] The moratorium prohibited new coal projects, with exceptions for coal plants already in the energy pipeline, as well as for captive coal plants tied to industrial projects of national strategic importance. It included a **sunset year of 2050** by which all captive coal plants must cease operation.

In response to the moratorium, the Ministry of Energy and Mineral Resources (MEMR) produced the **Roadmap for the Electricity-Sector Energy Transition** under Ministerial Regulation No. 10/2025.[77] The mandate establishes selection criteria and methodologies for early CFPP retirement, planning for 100% renewable energy electricity generation mix in 2060 in line with the country's Net Zero 2060 goal. This includes 41.5% variable renewable energy and 58% non-variable dispatchable renewable energy.

Indonesia released its **Second NDC** in October 2025.[78] It retains the enhanced targets of emissions reductions by 2030 against BAU while introducing absolute emissions targets based on 2019 levels. It also emphasizes accelerating the energy transition and applying just transition principles, aiming for renewables to reach 19–23% of the energy mix by 2030 and 70% by 2060. The document acknowledges the need to transition to high-efficiency, low-emission power generation technologies to mitigate emissions, and indicates plans to explore the use of super-critical and ultra-supercritical clean coal technology (CCT). In October 2025, the Indonesian Government announced that emissions peaking would be pushed back five years from 2030 to 2035.[79]

Related financial policies and initiatives

Indonesia has introduced financial policies and initiatives that impact coal financing either directly or indirectly. In 2021, the country initiated a **carbon tax** targeting CFPPs and established the legal framework for a domestic **emissions trading scheme** (ETS) under the Tax Harmonization Law.[80] However, challenges with measurement, reporting, and verification (MRV), together with political resistance and industry pushback, have stalled the implementation of the carbon pricing instruments.[81] Moreover, the ETS currently applies only to CFPPs, with emissions thresholds set at levels that exempt most facilities from purchasing carbon credits, limiting market activity. This led to Indonesia's Ministry of Finance publishing **regulation PMK No. 103 of 2023**, legalizing funding sources for early coal retirement, including state budgets.[82]

OJK (Otoritas Jasa Keuangan), Indonesia's Financial Services Authority, has also introduced several initiatives, including its official **Green Taxonomy** in 2022, setting specific rules for accessing green financing.[83] The taxonomy was subsequently updated and expanded to reflect national economic and sustainability strategies and to align with developments in the ASEAN Taxonomy. **Version 1 of the Indonesia Taxonomy for Sustainable Finance** was published in February 2024. This update was criticized by stakeholders for categorizing new captive CFPPs as transition activities under specific TSC,

raising concerns about greenwashing and potentially impacting investor confidence.[84] In February 2025, **Version 2** was released, expanding the scope beyond its initial focus on the energy sector to cover 192 business activities across multiple additional sectors.[85] **Version 3** is currently under development and is expected in early 2026, with plans to introduce TSC for the remaining priority sectors.[86] Captive coal power plants remain classified as eligible transition activities, and to date there has been no official indication that it will be revised.

While not a regulation, OJK also released the **Climate Risk Management & Scenario Analysis (CRMS) guideline** in 2024 recommending that banks assess climate risk exposure, including through scenario analysis and stress testing.[87] The guideline may indirectly impact coal financing via potentially increased risk exposure.

Despite ambitious plans and national energy and financial policy advancements, the most recent 10-year national power development plan, **Electricity Supply Business Plan (RUPTL) 2025–2034**, makes clear the reality of the energy transition in Indonesia.[88] While plans include a four-fold increase in clean energy production by 2034, renewable energy investments remain modest, leading to a revision of the 2030 capacity target from 20.9 GW to 18.6 GW. In addition, the country has only achieved 8% of the clean energy expansion targets set under the previous RUPTL 2021–2030.[89] At the same time, projections indicate a 40% increase in fossil fuel generation, which presents challenges in aligning with the JETP's stated ambition to increase renewable generation by 900% and reduce fossil fuel generation by 16% over the same period.

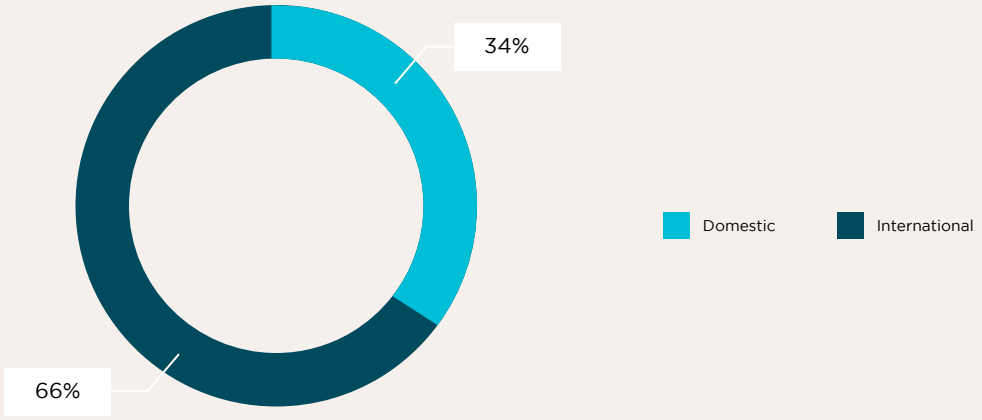
Taxonomy treatment of coal

Indonesia was among the first ASEAN member states to adopt a taxonomy in 2022 and followed the ASEAN green criteria to include projects that plan on early retirement. However, projects are subject to a flexible arrangement that allows them to lower themselves to "transition" financing if the threshold is not reached by the sunset period. Unlike ASEAN, Indonesia's "transition" code also permitted new capital for captive coal plants if they committed pre-2022 RUPTL, are built before 2030, and can achieve 35% emissions reduction within a decade, with a transition plan to cease operations by 2050.

Financial flow analysis

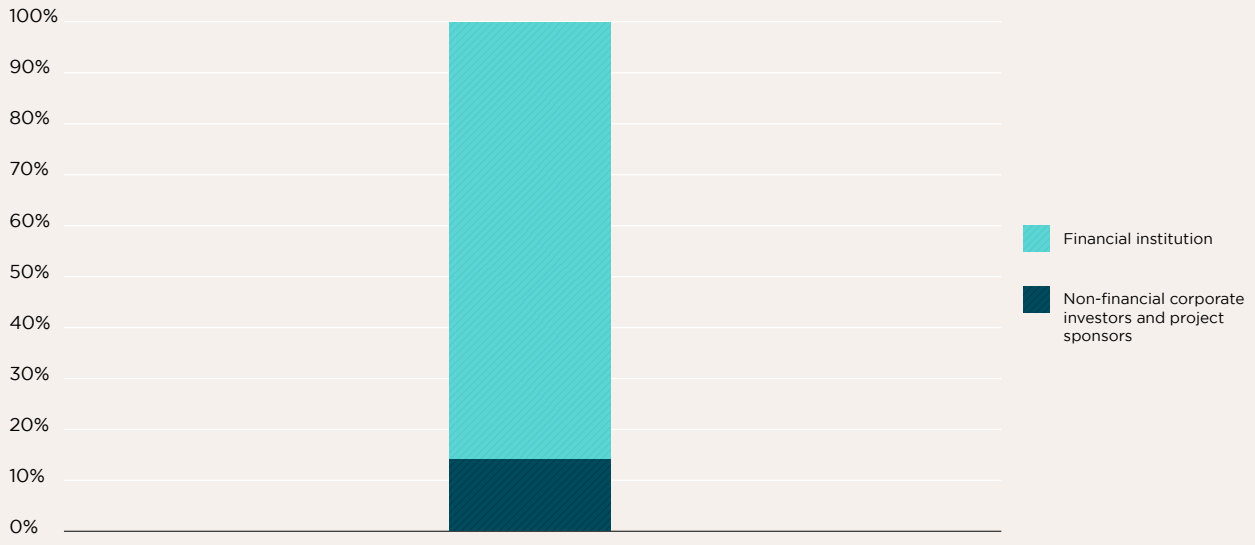
Indonesia saw the highest number of financiers supporting coal projects from 2020 to 2025, with 38 financiers accounting for the 50 financier involvements covering 27 coal power units across six power plants. Of these 50 financier involvements, 33 (66%) were international financiers (see **Figure 19**). As illustrated in **Figure 20**, coal project financing in Indonesia was predominantly supported by financial institutions, which accounted for 86% of total financier involvements. Most financier involvements were associated with loans (84%), with 38% from Chinese financial institutions, followed by domestic financial institutions (31%) (see **Figure 21**).

Figure 19 Proportion of domestic vs. international coal power financing, based on financier involvements in Indonesia, financial close year 2020–2025



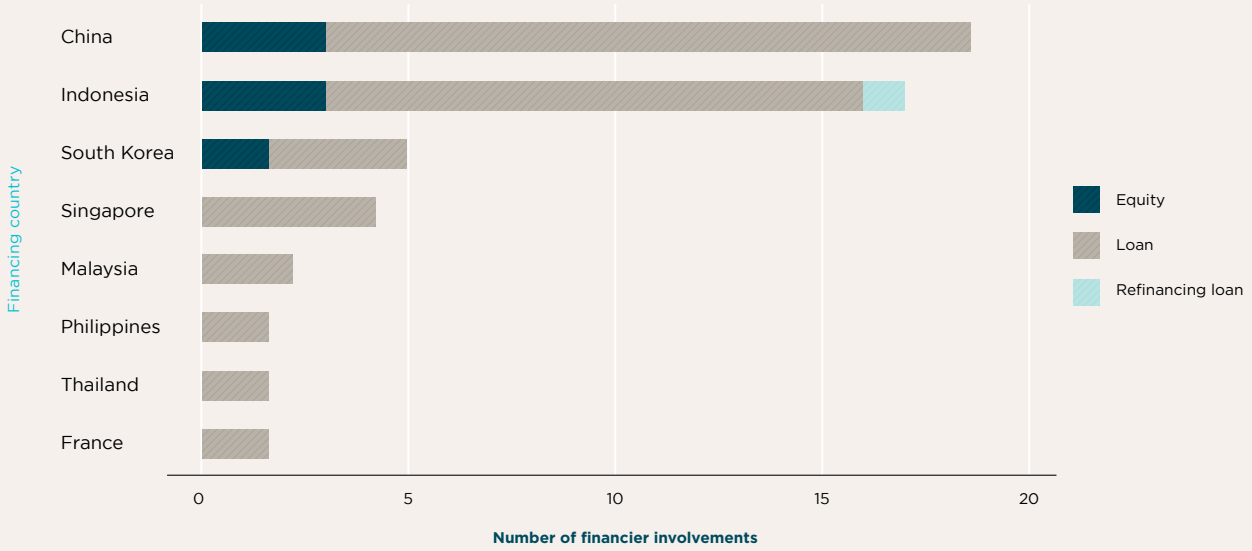
Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Figure 20 Coal power financing activity, share of financier involvements by actor type in Indonesia, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

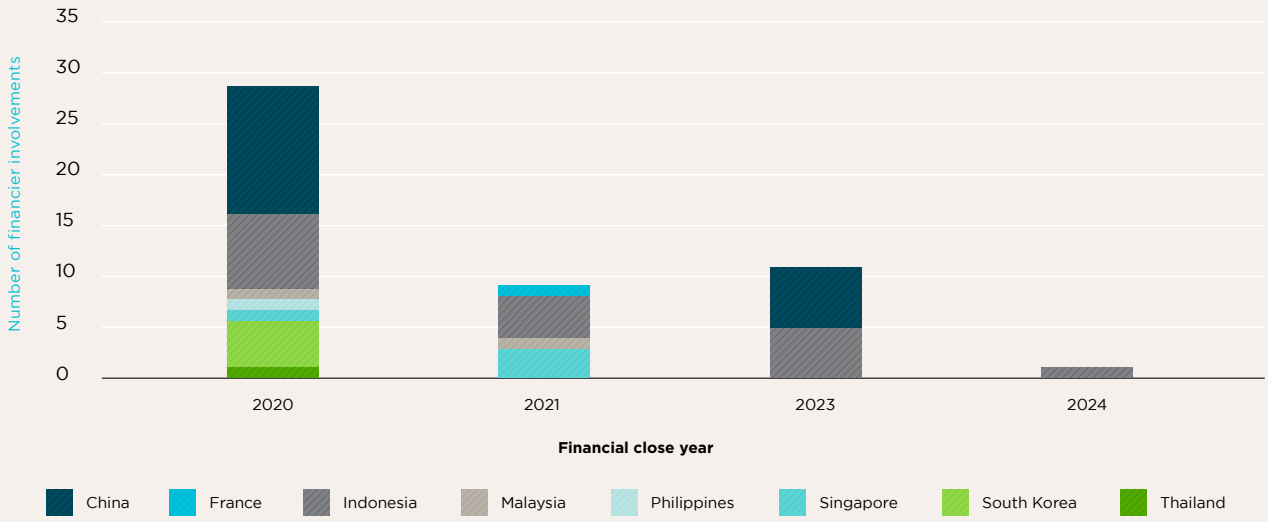
Figure 21 Coal power financing activity, financier involvements by financing country and financing type in Indonesia, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

The number of coal project financiers in Indonesia has declined significantly since 2020, falling from 29 financier involvements in 2020 to 11 in 2023 and just one in 2024 (see **Figure 22**). In addition, the majority of coal capacity financed since 2020 is already operational, accounting for 4,400 MW (53%) of the total 8,320 MW financed. The remaining 3,920 MW of capacity is still in the development pipeline, either in the pre-permit (28%) or active construction (72%) phase (see **Figure 23**).

Figure 22 Coal power financing activity, financier involvements by financier country and year in Indonesia, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Figure 23 Coal-generating capacity (mw) by status and financial transaction in Indonesia, financial close year 2020–2025

Source: GEM, Global Gas Finance Tracker, latest available data (September 2025).

Indonesia's coal fleet has historically been supported by international lenders. According to an Institute for Energy Economics and Financial Analysis (IEEFA) report on the role of coal in Indonesia's energy transition, 41% of operational coal capacity in 2021 was financed by Chinese institutions, with an additional 17% of financing from Japan.[90] The majority of these projects were for IPPs under long-term power purchase agreements (PPAs) with Indonesia's state power company, PLN, and were seen as lower risk investments for international lenders. These projects were aligned with national coal expansion efforts, namely the 35 GW program announced in 2015, which aimed to significantly expand power generation capacity to Indonesia's grid, largely through coal.[91] Shifts in coal policies in the early 2020s contributed to a sharp decline in coal financing in the country, particularly China's 2021 announcement that it would cease financing overseas coal projects.[92] Indonesia's coal moratorium announced in 2022 further solidified the transition away from new domestic coal plants.[93]

As international banks have become increasingly reluctant to finance new coal projects, domestic banks in Indonesia have nearly tripled coal financing since 2022 from USD 1.4 billion to USD 4 billion to fill the financing gap for new coal capacity in the country's energy pipeline, making these financial institutions the largest source of funding for the country's coal companies.[94]

3.1.3. Lao PDR

Lao PDR generates 23.8% of its national electricity from CFPPs.[95] Among the focus countries, it has one of the lowest shares of coal-powered electricity in the total mix, as the country's main source of electricity generation is hydropower. However, ratios may change in the short to medium term, with the construction of a new CFPP in Xekong Province, planned to be operational in 2030.[96] Lao PDR is considered the "Battery of Southeast Asia," exporting power to its neighbors, notably Thailand, from domestic resources.[97] With 75% of all electricity generated in Lao PDR coming from IPPs and exported to neighboring countries, its CFPPs are largely export-oriented rather than serving significant domestic coal needs.

Energy goals, plans, and coal policy timeline

The country's most recent **Updated NDC** was published in 2021 by the Ministry of Natural Resources and Environment (MONRE). It announced an unconditional, economy-wide commitment of 60% national emissions reduction by 2030, achieved largely through reduced emissions in the forestry land use sector and expanded hydropower capacity.[98] There is no economy-wide conditional reduction target for 2030 but several conditional mitigation measures in the energy sector are outlined, including the expansion of solar, wind and biomass capacity, improving demand-side energy efficiency, and implementing reduction strategies in transportation, with projected cumulative reductions of 543 $ktCO_2e$ per year by 2030. The NDC also established Lao PDR's Net Zero by 2050 ambition. To date, Lao PDR has not submitted a long-term climate change strategy.

Published in the same year by MONRE, the **National Strategy on Climate Change Toward 2030** included plans to promote CCUS technology in electricity generation and coal industries but did not outline any specific measures for coal phase-down or phase-out.[99]

In June 2024, local partners, in collaboration with MONRE and with support from the World Bank, developed the **Technical Recommendations for the Lao People's Democratic Republic Long-Term Low Emission Development Strategy**.[100] The document outlines pathways and strategies to achieve net zero by 2050. Notably, the report concludes that replacing coal with renewable energy, storage and regional grid integration, along with phasing out existing coal plants and canceling planned projects, is the only viable pathway.

To date, the country has not established a formal coal moratorium or phase-out policies. New coal projects are still commencing in Lao PDR, indicating that the use of coal has yet to peak.[101]

Related financial policies and initiatives

The Ministry of Agriculture and Environment (MAE) issued the **Carbon Credit Decree** in May 2025, establishing a framework for developing, approving, and registering carbon credit projects in the country.[102] With this in place, Lao PDR is now closer to participating in international and domestic carbon markets, which may indirectly affect coal financing through lower-carbon investments. Notably, the absence of a local Renewable Energy Certificate (REC) issuance mechanism in Lao PDR presents a barrier to corporate renewable energy procurement, thereby constraining the country's transition to clean energy.

The Bank of the Lao PDR (BOL), in partnership with the International Finance Corporation (IFC), is leading the development of the **Laos Green Finance Taxonomy** under the Green Finance Project, and aims to align it with the ASEAN Taxonomy.[103] The draft framework was discussed in March 2025 and technical reviews are ongoing.

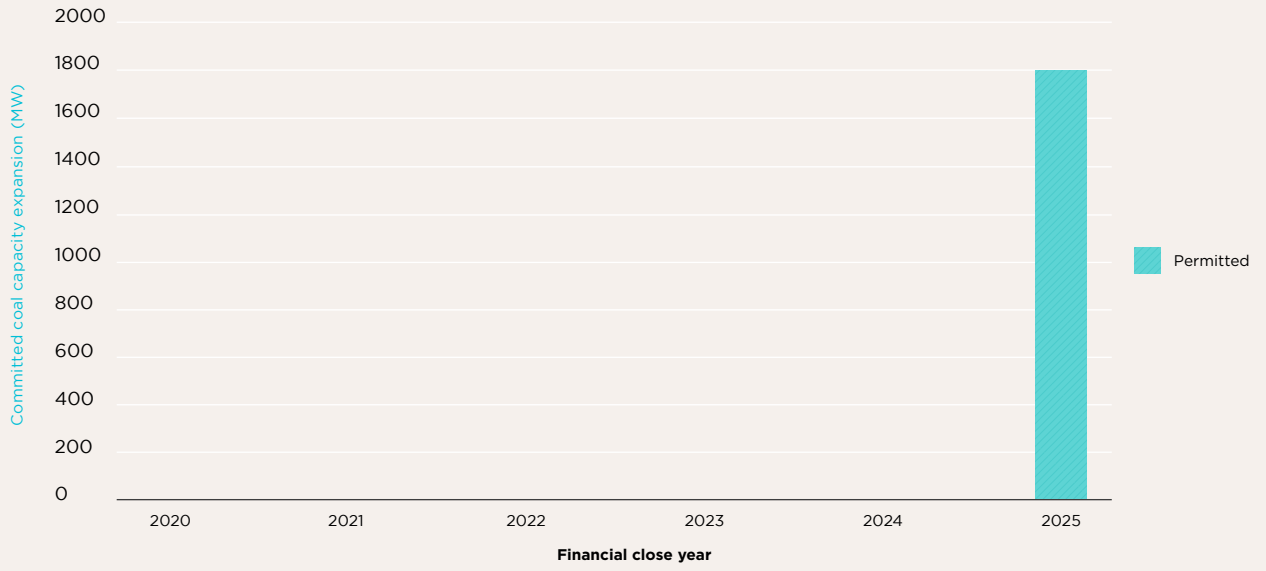
Financial flow analysis

Domestic financing has accounted for all coal power station financing in Lao PDR since 2020. Notably, six separate 300 MW coal power units at Phonesack Group's Xekong power station were financed via a loan backed by a single domestic financial institution and are still in the permit phase (see **Figure 24** and **Figure 25**).

Figure 24 Coal power financing activity, financier involvements by financing country and financing type in Lao PDR, financial close year 2020–2025

Source: GEM, Global Gas Finance Tracker, latest available data (September 2025).

Figure 25 Coal-generating capacity (mw) by status and financial transaction close year in Lao PDR, 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Coal plant financing in Lao PDR since 2020 has been entirely domestically led, most notably through the financial closure of the 1,800 MW expansion of the Phonesack Group's Xekong coal power project. While the project includes limited financial support from MB Bank of Vietnam and foreign firms in equipment supply and construction, project ownership, development, and primary financing responsibility remain domestic.[104] However, this illustrates that a domestic classification of coal project financing does not necessarily indicate an absence of international financial involvement, as foreign institutions may provide financing to domestic banks rather than directly to domestic coal projects.

Lao PDR's energy sector is export-oriented, with only 31.2% of generated electricity consumed domestically, and is dominated by hydropower, which accounts for 75.9% of generated electricity.[105] All generated electricity from the Xekong power station is planned to be exported to Cambodia under a long-term PPA.[106] However, the combination of surplus generation capacity, slow growth in domestic demand, and persistent financial losses at the state utility implies that new coal projects would face weak domestic demand and uncertain revenue, making them less attractive to international financiers.[107] This aligns with the energy sector roadmap developed by the ASEAN Centre for Energy (ACE), which anticipates

a gradual phase-out of coal in favor of renewables, particularly solar and biomass, as central to Lao PDR's pathway to net-zero emissions.[108]

3.1.4. Philippines

The Philippines is among the most coal-reliant countries in the region, with coal accounting for 62.5% of electricity generation.[109] The country's high coal share reflects baseload capacity built over the 2010s and import dependence, while the 2020 moratorium curbed new "greenfield" coal projects, causing coal's growth to stagnate.[110] It has yet to formalize a long-term carbon reduction target or adopt a comprehensive climate strategy aligned with the Paris Agreement, but the country is moving toward phasing down coal, signaling a shift to cleaner energy pathways and alignment with broader regional decarbonization trends.

Energy goals, plans, and coal policy timeline

The Philippines published its **first NDC** in April 2021, committing to a 2030 conditional reduction target of 72.29% and an unconditional target of 2.71%.[111] While detailed strategies were not included, the NDC indicates demand-side energy-efficiency improvements and the expansion of renewable energy deployment as major levers. There has been no updated NDC as of the study period.

While coal continues to account for a large proportion of the national energy generation mix, the Philippines has established policies supporting reduced reliance on coal. An official **coal moratorium** was adopted in October 2020, halting the Department of Energy from endorsing any new greenfield power plants, with exceptions for CFPPs already committed, as well as for expansions of existing facilities necessary for national grid reliability.[112]

While this policy marked a first step, it fell short of stopping new coal financing. The Philippine Energy Plan (PEP) (2023–2050) states that 9,008 MW of coal power projects are still in the development pipeline—either committed or indicative—while another 11,000 MW of coal projects have received clearance to conduct a system impact study, indicating early-stage developer interest.[113]

The Philippines has yet to announce a coal phase-out policy, timeline, or roadmap. However, in September 2025, the United Nations Office for Project Services (UNOPS), through the Southeast Asia Energy Transition Partnership (ETP), has partnered with the Department of Energy to study the economic and social impacts of a nationwide coal shutdown (including the funding needs for displaced workers and communities).[114]

Related financial policies and initiatives

The Philippines published the **Sustainable Finance Taxonomy Guidelines (SFTG)** in February 2024 through Bangko Sentral ng Pilipinas (BSP) Circular No. 1187. Under this taxonomy, coal-related activities are generally treated as excluded from sustainable finance classifications, although early retirement or repurposing of coal plants may be considered under transition finance if aligned with climate mitigation goals.[115] In addition, under the **Energy Transition Mechanism** (ETM) (see previous chapter), supported by ADB, the country uses blended finance to retire coal plants early and replace them with clean energy.[116] This approach forms part of the country's broader participation in the **Accelerating Coal Transition** (ACT) program launched by Climate Investment Funds (CIF) and managed by the World Bank.

Alongside coal policies and initiatives, the country also enacted the **Natural Gas Industry Development Act** (RA 12120) in 2025, establishing a formal legal

framework to support the pursuit of LNG as a transition activity.[117]

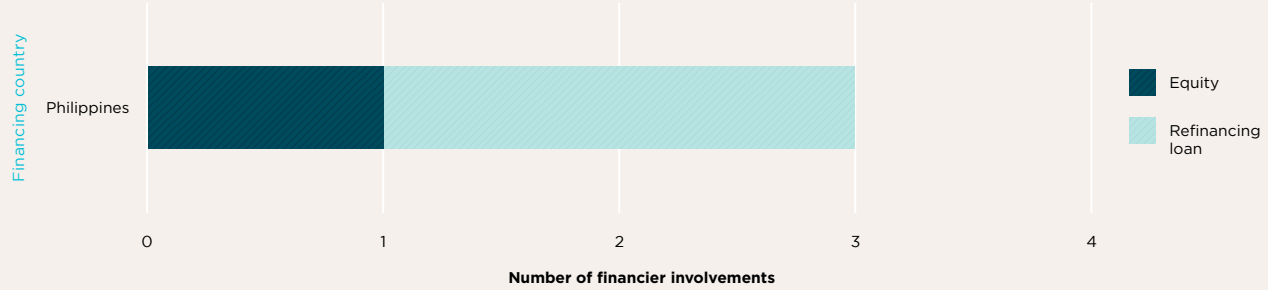
Taxonomy treatment of coal

A principles-based model was adopted in the Philippines. The objectives of the SFTG follow core principles like Do No Significant Harm (DNSH), Minimum Social Safeguards (MSS) and Remedial Measures for Transition (RMT).[118] While flexible, the system has raised concerns about its ambiguity, leaving room for interpretation, namely about the absence of numeric thresholds or explicit sunset tables. The Philippines lists exploration, production, transportation of fossil fuels, and fossil fuel power generation projects, including coal, as excluded activities in its taxonomy. However, it may allow existing CFPPs with retirement or repurposing as part of their mitigation plan to be eligible for transitional financing under amber status.

Financial flow analysis

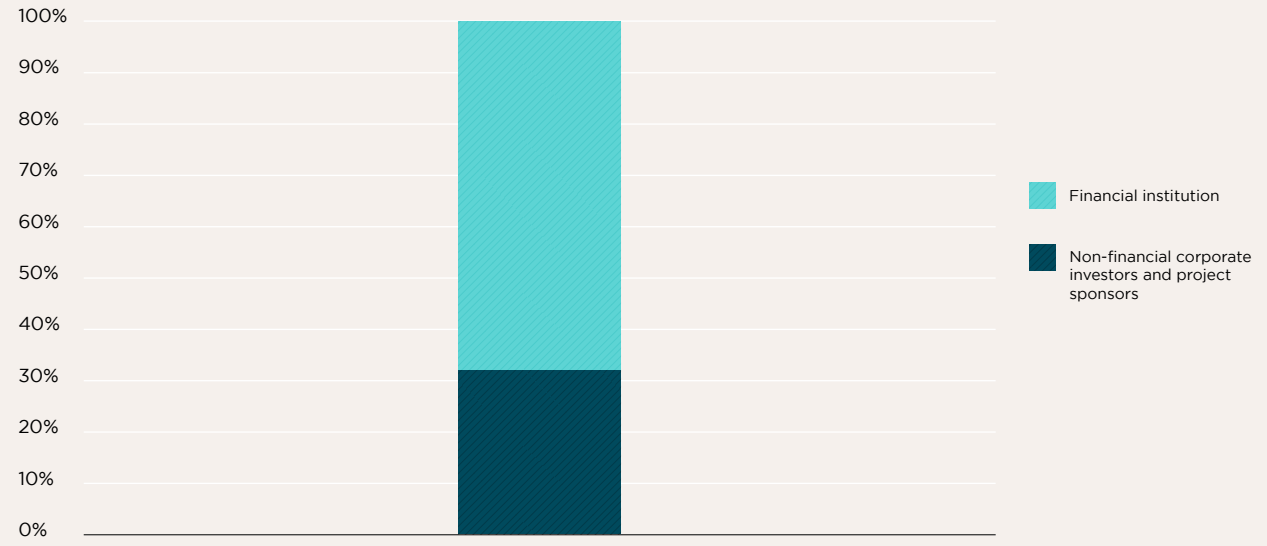
Since 2020, all recorded coal plant financing in the Philippines has been domestically sourced. Refinancing loans backed by two domestic financial institutions were used to support two 135 MW coal power units at Puting Bato power station, in operation since 2015 and 2016. Equity from a non-financial project sponsor was used to finance four 150 MW coal power units at SMC Mariveles power station (see **Figure 26** and **Figure 27**). One of these coal power units is still under construction (see **Figure 28**).

Figure 26 Coal power financing activity, financier involvements by financing country and financing type in the Philippines financial close year 2020–2025



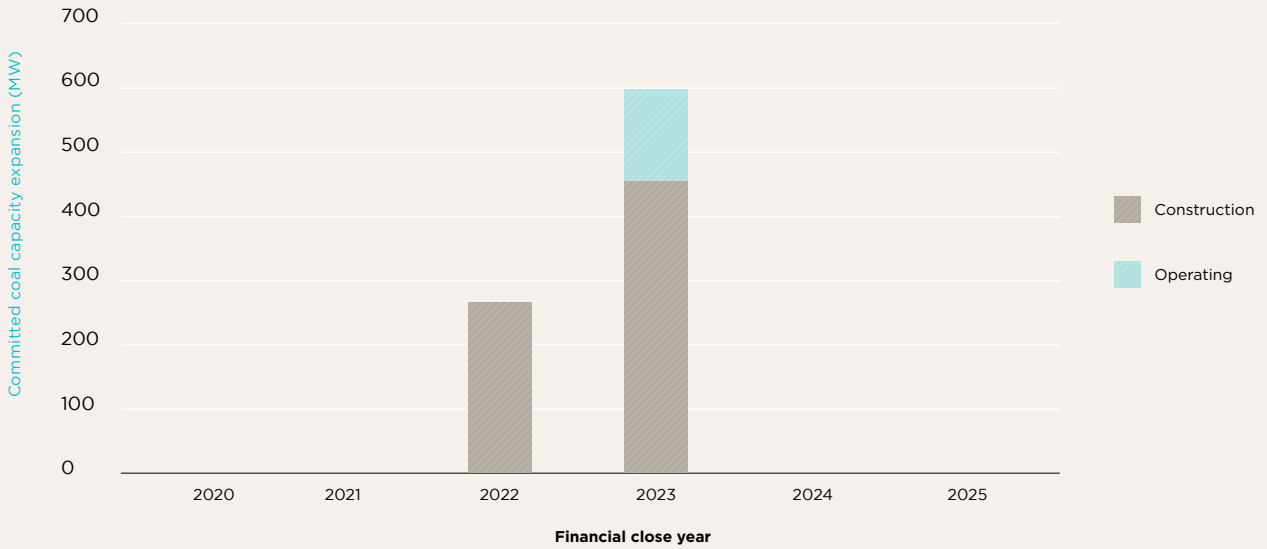
Source: GEM, Global Gas Finance Tracker, latest available data (September 2025).

Figure 27 Coal power financing activity, share of financier involvements by actor type in the Philippines, financial close year 2020–2025



Source: Global Energy Monitor (GEM), Global Coal Project Finance Tracker, latest available data (April 2025).

Figure 28 Coal-generating capacity (mw) by status and financial transaction close year in the Philippines, 2020–2025



Source: GEM, Global Gas Finance Tracker, latest available data (September 2025).

due to its 2020 coal moratorium, all new greenfield coal projects were halted beyond the existing pipeline, including pre-permitted plants, with coal financing limited to domestic refinancing and equity.[119] PEP 2023–2050 similarly models no new coal permitting, while still listing 9,008 MW of committed/indicative coal projects and 11,000 MW of projects with System Impact Study (SIS) clearance.[120] These restrictions on new coal slots in future planning leave little viable opportunity for foreign financing. BDO Unibank, one of the largest banks in the Philippines, has stopped financing new coal at a project finance level, but still allows for corporate coal lending.[121] In general, although the Philippines has had a coal moratorium since 2020, subsequent exemptions and a parallel push for natural gas have introduced inconsistencies across energy and investment policies.

Such dissonance reduces the clarity of the country's coal phase-out and clean energy transition trajectory.

3.1.5. Thailand

Coal accounts for 14.6% of Thailand's electricity generation, with the majority of electricity derived from natural gas.[122] This makes it the country with the lowest ratio of electricity generation from coal among the focus countries. The coal share in the energy mix has remained relatively consistent since 2016, although absolute coal-fired power generation has seen a 64% increase since 2000, mainly economic and lifestyle-driven rather than energy poverty demands.[123] Coal is used to diversify Thailand energy mix, but new coal development has been limited in recent years as planning focuses on gas and renewables.

Energy goals, plans, and coal policy timeline

Thailand submitted its **Updated NDC** in 2020, targeting GHG emissions reductions of 25% conditional and 20% unconditional by 2030.[124] In 2022, Thailand submitted its **Second Updated NDC**, raising 2030 reduction targets to 40% conditional and 30% unconditional cutback under the same timeline.[125] This NDC does not include any strategies specific to coal power generation but emphasizes the need for international support for key mitigation measures in the energy sector, including research, development, and deployment of advanced energy technologies.

In the same year, Thailand's Office of Natural Resources and Environmental Policy and Planning (ONEP) published the nation's **Long-Term Low Greenhouse Gas Emission Development Strategy** (LT-LEDS), establishing Thailand's Carbon Neutral by 2050 and Net Zero by 2065 targets.[126] These long-term targets rely on renewables accounting for 74% of energy generation by 2050, alongside dispatchable energy sources including bioenergy plants equipped with CCUS and combined-cycle natural gas. While there is no formal phase-out policy, the LT-LEDS models coal phase-out by 2050 in the net-zero pathway.

In November 2025, the country submitted its **NDC 3.0**, with updated targets of 47% conditional and 30% unconditional reduction of GHG emissions by 2035 (compared to 2019 levels).[127] The NDC's language still does not explicitly pledge a coal phase-out or phase-down, but it does provide an assessment of the technical and commercial feasibility of early coal plant phase-out, along with estimated investment needs broken down by cost per tonne of emissions abated. The new NDC also mentions the country reaching peak emissions before 2030, implying an overall reduced reliance on fossil fuels over time.

Thailand also has an **upcoming Climate Change Bill**, which is currently under consultation and expected to be submitted by late 2025 and enacted in 2026. The Bill is intended to establish a comprehensive legal framework for climate governance, including emissions regulation, carbon pricing, and monitoring and reporting requirements.[128] The coal-related aspects are expected to be indirectly covered through carbon pricing, an ETS, and EU Carbon Border Adjustment Mechanism (CBAM) provisions. These compliance mechanisms aim to, in effect, make coal less economically viable over time.[129]

Related financial policies and initiatives

In 2023, the Bank of Thailand (BOT) issued the policy statement, **"Internalizing Environmental and Climate Change Aspects into Financial Institution Business,"** requiring commercial banks to integrate environmental and climate risks in governance, strategy, risk management, and disclosure.[130] These new practices are likely to discourage financing of coal and other high-emission activities over time.

The BOT also published Phase 1 of Thailand's **Green Finance Taxonomy** in July 2023, establishing eligibility criteria for green financing activities in select sectors, including the energy sector.[131] The list of sectors was further expanded in May 2025 with the publication of **Thailand Taxonomy – Phase 2**.[132] The taxonomy does not officially mandate a coal phase-out, but classifying coal-fired power generation as incompatible with the country's net-zero targets signals discouragement of investment flows.

Further pressure is placed on fossil fuel activities with the release of the draft Ministerial Regulation on Carbon Tax Collection under the Excise Tax Act by Thailand's Ministry of Finance.[133] Under the regulation, the government plans to introduce a **carbon tax** in 2025 and is part of a long-term initiative under the Climate Change Bill, mentioned above. The scope of the carbon tax is intended to include coal and gas products alongside oil and gas products, which currently take precedence.

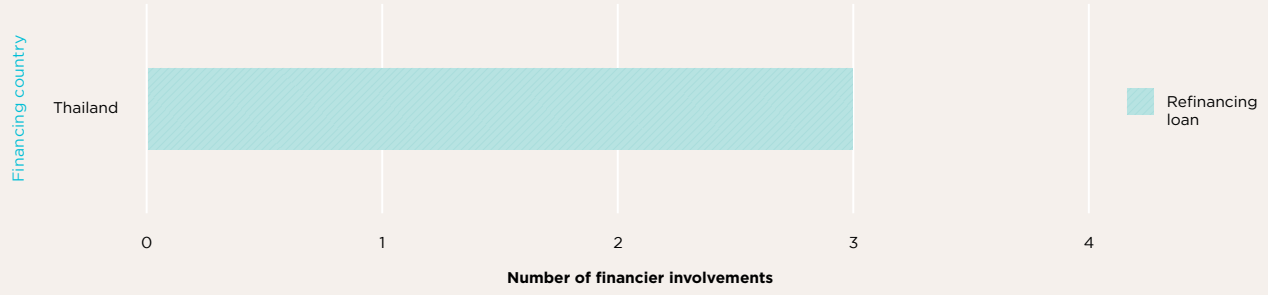
Taxonomy treatment of coal

Thailand's taxonomy is based on the ASEAN rules-based framework, which uses quantitative thresholds, performance metrics, and sunset rules to classify activities.[134] It was also among the first to adopt official green financing frameworks in 2023. According to the taxonomy, all coal-fired power projects are considered red with no green or amber pathway—the most stringent approach to coal financing in the six focus countries.

Financial flow analysis

All coal project financing since 2020 in Thailand occurred in 2023 and was handled domestically. There has been no known new coal plant financing in Thailand since then, with the 2023 coal project financing constituting refinance loans backed by three domestic financial institutions for a single 660 MW coal power station, Gheco One (operational since 2012) (see **Figure 29**).

Figure 29 Coal power financing activity, financier involvements by financing country and financing type in Thailand, financial close year 2020–2025



Source: GEM, Global Gas Finance Tracker, latest available data (September 2025).

Thailand's limited coal financing since 2020 aligns with national energy planning that has gradually facilitated the transition from coal power. The previous power development plan (PDP2018) dropped two coal projects after public backlash during the plan's consultation period.[135] The current draft power development plan (PDP2024–2037) does not include any new coal projects, instead filling the gap with renewables, gas, and imported hydropower.[136] This aligns with the nation's 2022 **Long-term Low Greenhouse Gas Emission Development Strategy**, which aims for coal phase-down by 2040 and phase-out by 2050.[137] Domestic major financial institution policies further constrain the domestic future of coal

power. As of 2025, Kasikornbank and Siam Commercial Bank have announced "no new coal" policies, ceasing financing for new coal power plants.[138]

While financial policies and policy direction have contributed to no new coal units financed in Thailand in recent years, it should be noted that Thai companies operate CFPPs in several ASEAN member states, including Cambodia, Indonesia, Malaysia, the Philippines, and Vietnam. Most power companies are slowly transitioning away from coal, but several legacy coal power plants are still operational. In most cases, electricity generated by Thai-owned CFPPs in foreign countries is consumed domestically within those countries. However, Thai companies hold a majority stake in the 1,878 MW Hongsa Power Station in Lao PDR, and nearly all power generated at that plant is exported to Thailand.[139]

Thai power companies have also invested in renewable energy expansion and operate renewable energy projects that supply clean electricity across Southeast Asia and beyond, contributing to the region's energy transition.

3.1.6. Vietnam

Vietnam's total electricity generated from coal is 44.8%—a rising trend in recent years and overtaking hydropower as the main generation source since 2018.[140] This reflects its dependence on coal plants to provide a steady supply of power as demand grows faster than alternative sources can scale.[141]

Energy goals, plans, and coal policy timeline

Vietnam has set commitments and implemented policies in recent years that have made it a leader in coal phase-out in the region. The country published an **Updated NDC** in 2020, setting a conditional target of 27% and unconditional target of 9% emissions reductions by 2030.[142] The NDC included plans for further coal development while also mentioning energy sector mitigation measures, including demand-side energy-efficiency upgrades, shifting to cleaner fuel sources, and expanding renewable energy generation capacity.

In 2022, Vietnam submitted its **Second Updated NDC**, setting new conditional and unconditional reduction targets for 2030 at 43.5% and 15.8%, respectively.[143] Energy sector mitigation measures continued to prioritize demand-side energy-efficiency upgrades, while supply-side interventions included plans for combined gas turbine with natural gas in addition to renewable expansion. This NDC projected 24.4% emissions reductions in the energy sector under the conditional scenario at an estimated cost of USD 46 million in international support.

Later that year in July, Vietnam published its **National Climate Change Strategy to 2050**, which further pushed the energy transition needle by increasing 2030 energy sector reductions to 32.6%, as well as setting a 91.6% target by 2050.[144] It also formally established the country's Net Zero by 2050 target. This long-term climate strategy marked a significant leap in Vietnam's energy transition ambitions by stating the country will refrain from developing new coal-fired thermal electricity projects after 2030, gradually transition from coal to cleaner energy sources, and reduce coal-fired electricity generation after 2035. There are also plans to replace coal with natural gas in certain industrial processes.

Plans for the phase-down and eventual phase-out of coal are further cemented in **Vietnam's Power Development Plan VIII** (PDP8).[145] In alignment with the National Climate Change Strategy to 2050, PDP8 plans to continue implementing coal projects in the energy pipeline until 2030 and explore the possibility of converting CFPPs that are over 20 years old to

alternative fuels, including biomass or ammonia. CFPPs over 40 years old are to be fully decommissioned if fuel cannot be converted. Plans include filling supply gaps by maximizing domestic gas and importing natural gas to fill demand gaps. While this does not constitute a formal phase-out policy, under PDP8, coal power generation capacity in 2050 is targeted to be zero.

Related financial policies and initiatives

In August 2024, the State Bank of Vietnam (SBV), under **Decision 1663/2024**, set the requirement that by 2025 all domestic and foreign banks must have internal regulations on environmental risk management (ERM) and require environmental risk assessments to grant credit.[146] Further indirect pressure on fossil fuel energy generation came in January 2025 with **Decision 232/QD-TTg**, which approves the roadmap for implementing Vietnam's **emissions trading scheme** (ETS) and MRV system, originally mandated by the 2020 Law on Environmental Protection.[147] Phase 1 of the pilot is expected to conclude in 2025 with full implementation by 2029, at which time the domestic carbon market will be fully operational.

In 2025, the **Vietnam Green Taxonomy** was established, defining activities across key sectors and establishing the legal foundation for a domestic green finance market.[148] While it only defines a list of green activities for certain sectors, additions are expected in the future.

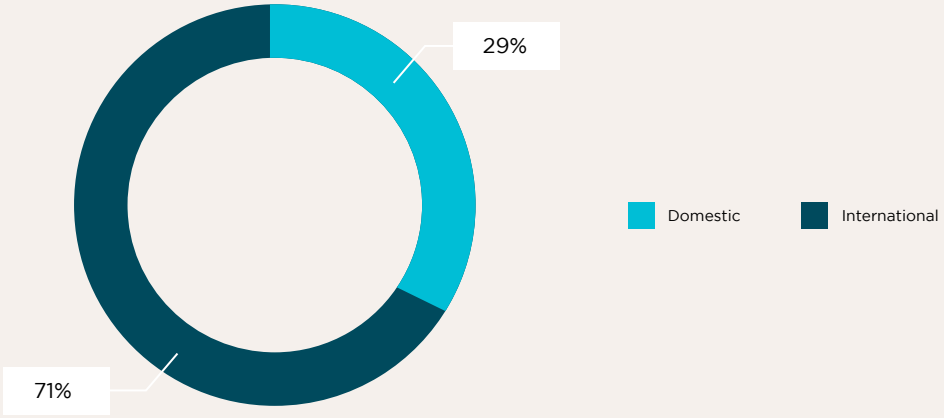
Taxonomy treatment of coal

Vietnam's taxonomy defines 45 activities in seven sectors as eligible for green financing. To date, the taxonomy is not considered a final or comprehensive version due to its limited scope and lack of TSC, which are expected in later iterations.

Financial flow analysis

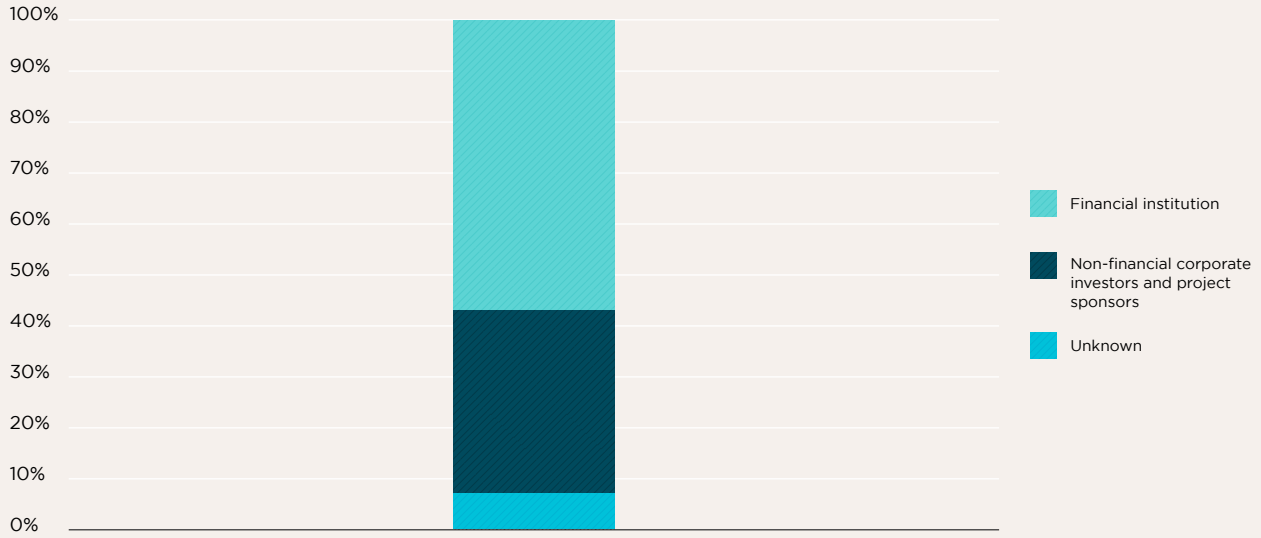
Vietnam's coal financing space is dominated by international investors with financing for four coal power plants, including seven coal power units, from 2020 to 2025. Coal project financing over this period included 14 financier involvements, 10 of which (71%) were international financiers (see **Figure 30**). While most financier involvements were financial institutions, five of the 14 were attributable to non-financial corporate investors and project sponsors (see **Figure 31**). In contrast to the other focus countries, Vietnam has attracted primarily Japanese investors, which have accounted for over half of coal project financiers since 2020 (see **Figure 32**).

Figure 30 Proportion of domestic vs. international coal power financing, based on financier involvements in Vietnam financial close year 2020–2025



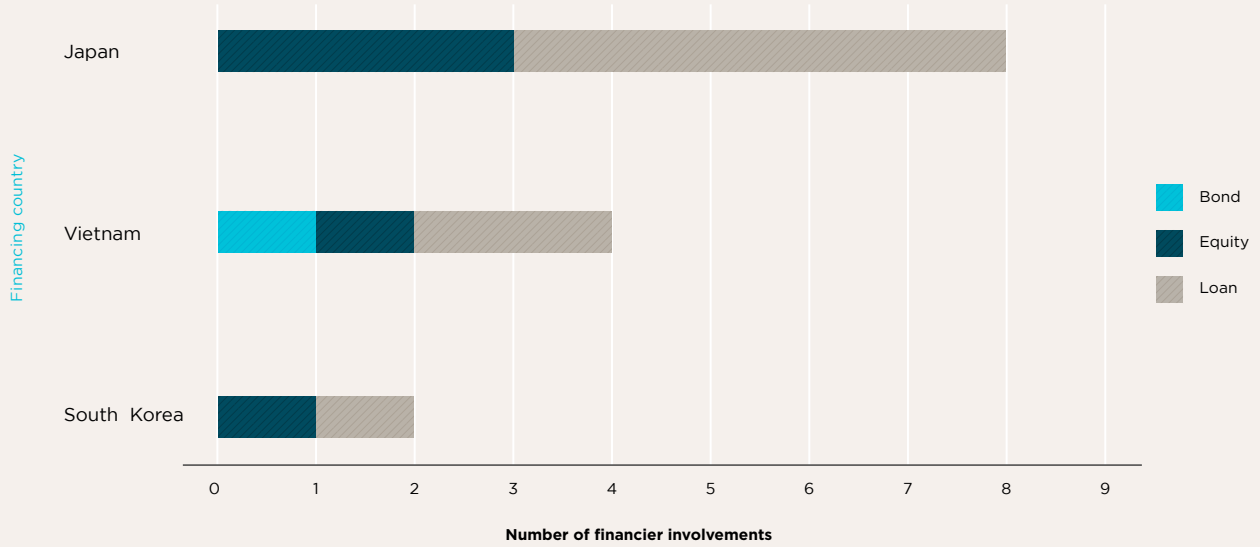
Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Figure 31 Coal power financing activity, share of financier involvements by actor type in Vietnam, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Figure 32 Coal power financing activity, financier involvements by financing country and financing type in Vietnam, financial close year 2020–2025

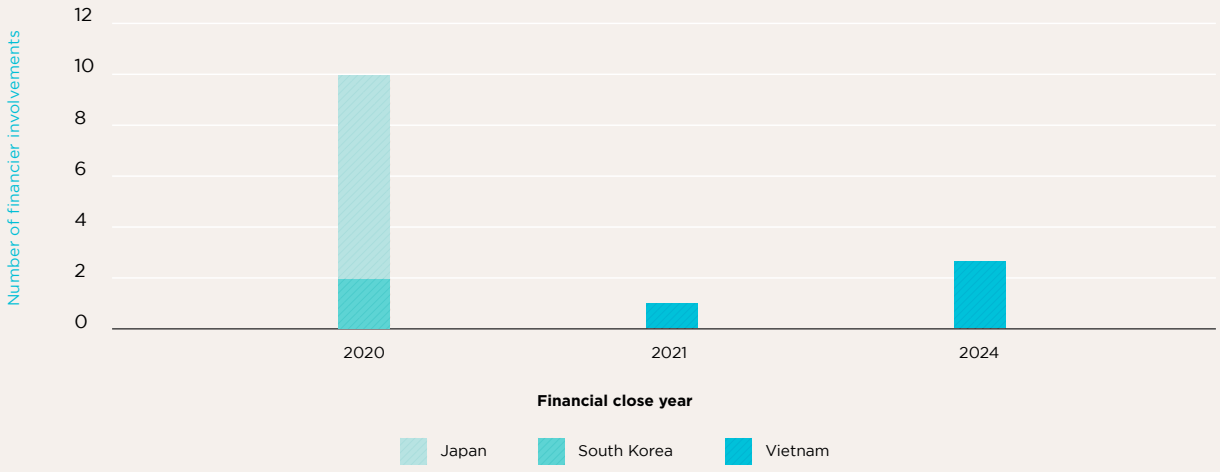


Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

In addition, financial activity around coal plant financing in Vietnam was highest in 2020 with 10 financiers from Japanese and South Korean institutions (see **Figure 33**). No financing for coal power plants occurred in 2022, 2023, and 2025. Notably, two coal power units financed by Malaysia since 2020 were subsequently shelved, which accounted for 2,000 MW of capacity.

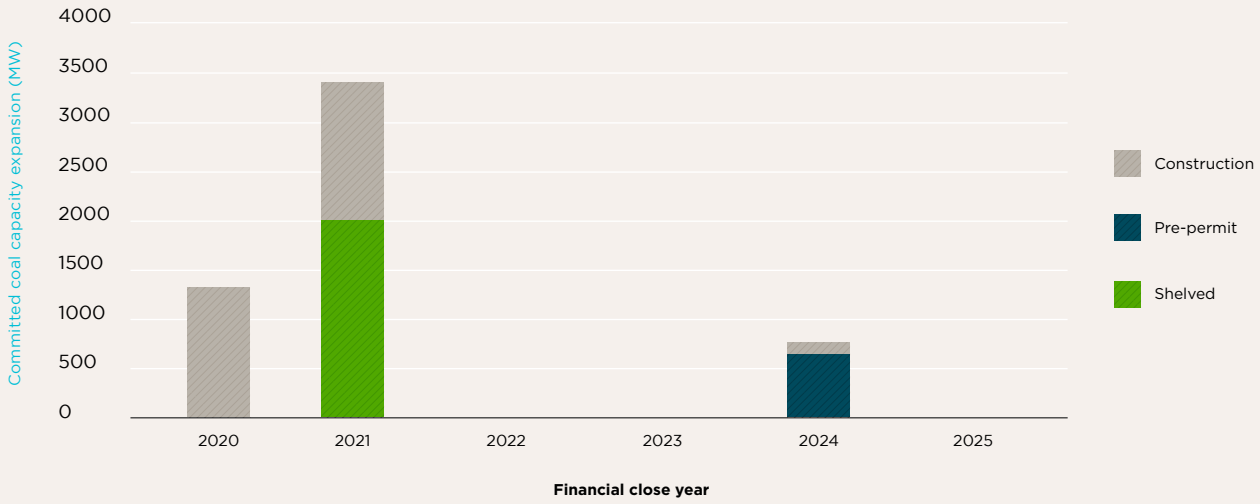
As seen in **Figure 34**, Vietnam's remaining 5,493 MW of coal-generating capacity financed since 2020 are divided between coal projects in the pre-permit (12%), active construction (52%), and 2,000 MW that were shelved (36%).

Figure 33 Coal power financing activity, financier involvements by financier country and year in Indonesia, financial close year 2020–2025



Source: GEM, Global Coal Project Finance Tracker, latest available data (April 2025).

Figure 34 Coal-generating capacity (mw) by status and financial transaction close year in Vietnam, 2020–2025



Source: GEM, Global Gas Finance Tracker, latest available data (September 2025).

Vietnam's coal power expansion has relied primarily on foreign financed IPPs. A 2021 IEEFA report on Vietnam's coal financing trends in the wake of the release of PDP8 found that of the 12 coal projects financed between 2015 and 2021, 10 received public financing from Japan, China, or South Korea.[149] Financing trends began shifting after South Korea and Japan committed under G7 to end new overseas public financing of unabated coal by the end of 2021 alongside restrictions on overseas coal finance, as well as China's announcement in 2021.[150] The decline in new coal projects coincides with the national coal moratorium, which states the country will refrain from building any new coal projects after 2030.[151]

3.2. Non-focus countries: High-level reviews

Table 3 provides a high-level summary of the policies and activities used to compare seven non-focus countries based on the steps they have taken toward coal phase-out.

Table 3 High-level comparison of national coal phase-out ambitions and maturity levels among Seven Non-Focus Countries

	Bangladesh	Brunei	India	Malaysia	Myanmar	Pakistan	Timor-Leste
Net-zero target	None	Net-zero by 2050 (Conditional)	Net-zero by 2070 (Conditional)	Net-zero by 2050 (Conditional)	None	None	None
Coal moratorium	No policy	No policy	No policy	Formal no new coal, no extensions; no exceptions	No policy	Committed to coal moratorium in 2020	No policy
Coal phase-out policy	No policy	No policy	No policy	Phase-out all coal by 2044, with roadmap	No policy	No policy	No policy
Site-level international support	None	None	None	None	None	None	None
Economy-level international support	None	None	JETP discussions held but not pursued	None	None	None	None
Taxonomy status	National taxonomy established and in force; fossil fuel extraction and energy generation ineligible for sustainable finance without exception	No national taxonomy	Draft Climate Finance Taxonomy under consultation, which notes the need for investment in Advanced Ultra Super Critical (coal) thermal power plants to reduce emissions in the power sector	Two separate principles-based taxonomies; aligns with ASEAN Taxonomy, which treats new coal activities as ineligible	No national taxonomy	Pakistan Green Taxonomy published in 2025; power plants dedicated to supporting fossil fuel infrastructure are ineligible	No national taxonomy

	Bangladesh	Brunei	India	Malaysia	Myanmar	Pakistan	Timor-Leste
Carbon pricing mechanisms	No carbon tax or ETS	No carbon tax or ETS	In 2025, India eliminated its Coal Cess tax and instead raised the Goods and Services Tax (GST) on coal to 18%, resulting in a net reduction in coal taxation	Carbon tax planned for 2026; voluntary carbon market and national ETS still under consideration	No carbon tax or ETS	Introduced carbon levy on liquid fossil fuels (diesel, petrol, oil); in the process of building capacity and developing MRV systems with GIZ to support the development of a domestic ETS	No carbon tax or ETS, but has voluntary carbon market projects
CCS/CCUS technology	No commercial CCUS facilities in development, under construction, or operational	No commercial CCUS facilities in development, under construction, or operational	2 commercial CCUS facilities in operation 3 facilities in development	1 commercial CCUS facility under construction 1 facility in development	No commercial CCUS facilities in development, under construction, or operational	No commercial CCUS facilities in development, under construction, or operational	1 commercial CCUS facility in development

3.2.1. Bangladesh

Trends in recent years suggest fossil fuel-powered electricity generation is steadily increasing in Bangladesh. According to the most recent IEA data, it already accounts for over 98% of electricity generation, primarily from natural gas (65.8%) with coal constituting 10.6%.[152] While there are currently no national policies to phase out the development of CFPPs, NDC 3.0 states the country's aim for a 26.46% reduction in energy-related emissions by 2035, with a broad focus on power sector decarbonization and renewables expansion (similar language was adopted in its standalone Just Transition chapter).[153] Bangladesh's sustainable finance taxonomy excludes coal and other fossil fuel-based energy generation from green classification, focusing instead on renewables and low-carbon projects.[154] However, the exclusion of coal from the taxonomy does not, in itself, constitute a binding restriction on coal financing, as there are currently no legal requirements mandating financial institutions to align their lending or investment decisions with the taxonomy.

3.2.2. Brunei

Over 99% of Brunei's electricity generation comes from fossil fuels, primarily natural gas.[155] The country began generating electricity from (imported) coal in 2019, which accounts for 20.4% of its electricity generation mix. There are no national policies for phasing out or halting new coal developments.

3.2.3. India

Coal accounts for over 74% of India's electricity generation, with nearly 40% of the country's districts experiencing some form of coal dependency, including homes and coal workers, and receiving revenues from the District Mineral Foundation (DMF, a non-profit trust set up in mining-affected districts in India) or benefiting from corporate social responsibility (CSR) spending by coal companies.[156] India sees coal as essential to energy security and economic development and continues to approve new coal projects. India also acts as a primary supplier of thermal coal to neighboring countries, including Bangladesh, Bhutan, and Nepal, which depend on Indian coal to meet their energy demands, with approximately 1–2 million tonnes exported annually to Bangladesh and Nepal.[157]

3.2.4. Malaysia

Malaysia's economy is heavily reliant on fossil fuels, with the oil and gas sector contributing 20% (economic output) to annual GDP alone.[158] While oil and gas products, as well as natural gas, are more prominent sources in its energy mix, 45% of Malaysia's electricity generation is derived from coal.[159] This reliance is mainly due to a decline in domestic gas output and energy diversification. Malaysia imported a record volume of thermal coal in 2025 to meet energy demands and replace natural gas power generation, freeing it up as LNG exports.[160] However, the country has adopted several policies that signal a transition away from coal, including a coal moratorium on all new CFPPs and a plan to completely phase out coal by 2045, allowing existing PPAs to phase out naturally.[161] Prior to the introduction of policies aimed at limiting coal plant financing, it was found that Malaysia was a significant financier of foreign CFPPs.

Malaysia's NDC 3.0 commits to peak emissions between 2029 and 2034, with a 15–30 $MtCO_2eq$ absolute reduction by 2035, stating that under the National Energy Transition Roadmap (NETR), *"coal-fired power plants are set for near-complete retirement through natural phase-outs, with no new additions planned"*.[162] Financial institutions and listed companies are now also guided by Bank Negara Malaysia's Climate Change

and Principle-based Taxonomy (CCPT) and Bursa Malaysia's disclosure rules, which require climate risk assessments and credible transition plans. Malaysia also plans to table its Climate Change Bill (RUUPIN) in early 2026 to establish a regulatory body to oversee emissions quotas, carbon credit allocation, and a carbon tax mechanism, with coal phase-out embedded in sectoral transition planning.[163]

In line with national commitments, Malaysia's major banks are indirectly involved in regional energy transition and climate pathways. For example, CIMB's 2040 coal-financing phase-out policy applies across all its ASEAN markets, while Maybank's transition finance and sustainable finance commitments support decarbonization efforts.[164] Both banks have sustainable product mechanisms that address region-wide transition activities.

The Sarawak Energy Transition Policy (SET-P) positions the state as a regional clean energy hub, leveraging hydropower and emerging hydrogen technologies to support ASEAN's decarbonization goals.[165] Operating under its own energy governance framework, separate from Peninsular Malaysia, Sarawak plans electricity exports to Singapore via subsea interconnection, while coal-fired generation at Sejingkat and Balingian are slated for phased reduction.

3.2.5. Myanmar

Over half of Myanmar's electricity generation is from fossil fuels, primarily natural gas at nearly 48% with coal at just 5.3%.[166] Myanmar has not adopted any policies to phase out or halt the production of new CFPPs, and continues to rely almost entirely on its domestic supply. Ongoing civil conflict has weakened domestic energy supply and halted new investment, making energy security the government's primary focus rather than fossil-fuel phase-out policies.[167]

3.2.6. Pakistan

Pakistan's electricity generation is derived mainly from natural gas and hydropower, accounting for approximately 28% and 27%, respectively, with coal constituting 12.8%.[168] Several CFPPs were financed and constructed in Pakistan under the China-Pakistan Economic Corridor (CPEC) to support energy demands and ease load-shedding. However, this resulted in expensive take-or-pay liabilities, with power purchasers obligated to pay Chinese coal plants for capacity regardless of actual electricity generation.[169] Underutilized imported-coal power plants, the result of low industrial growth and demand in Pakistan, are operating at less than 20% capacity in some cases and have contributed to ongoing economic pressures.[170] As a member of the National Electric Power Regulatory Authority (NEPRA) recently stated, *"In total, around [USD 246 million] has been claimed in capacity charges despite minimal generation."* With capacity payments made to idle imported-coal plants, the financial and structural pressures associated with low utilization are clear.[171]

In 2020 the government announced a coal moratorium, halting new CFPPs or power from imported coal and has cancelled many planned coal plants.[172] However, there are plans to continue expansion of coal power generation in Pakistan from domestic sources. In 2024 the government approached Chinese power plant operators to shift to domestic coal from the Thar region of Sindh.[173] This policy shift is also evident in expansion plans for the Thar Block II Coal Mine.[174] This combination of capacity-payment burdens, stranded-asset risks, and persistently low utilization of imported-coal plants highlights the financial pressures that will shape Pakistan's coal retirement pathways and transition planning.

Beyond economic and energy system considerations, coal mining and power generation in the Thar region have

raised significant environmental justice concerns. Communities that traditionally rely on rain-fed subsistence farming and livestock rearing have experienced loss of land, water extraction pressures, air pollution from coal dust and fly ash, and contamination from coal waste, with some villages reporting crop yields declining by up to 50% and increased livestock mortality.[175] As of 2022, coal development in the Thar coalfield has contributed to the displacement of more than 30,000 people across at least 10 villages, disrupting long-standing livelihoods and exacerbating health risks linked to air pollution and environmental degradation.[176]

3.2.7. Timor-Leste

Timor-Leste does not currently operate CFPPs and has no formal coal phase-out policy, as coal is an insignificant part of its energy mix.[177] The country's electricity generation is almost entirely reliant on imported fossil fuels, primarily oil, with negligible contributions from coal or renewables. Its Updated NDC, published in November 2022, therefore does not specifically address coal phase-out, phase-down, or related energy commitments.[178]

Cirebon 1 and 2 coal-fired power plants, 2023. Photo credit: WALHI West Java.

4

CREDIBLE COAL PHASE-OUT: PRINCIPLES, SOCIAL SAFEGUARDS, AND FINANCIAL FRAMEWORK

Solar Irrigation System in Battambang Province, Cambodia 1. Photo credit: Fair Finance Cambodia.

4.1. Defining a credible coal phase-out

Based on the regional and country analyses, the following criteria have been identified as principles of a credible and successful coal phase-out, informed by observed policy approaches across the assessed countries and international good practice, including moratoria status, coal retirement announcements, and power-sector planning. These criteria are used as analytical benchmarks, rather than a direct reflection of national policies, to assess the extent to which current frameworks support a credible transition. Overall, these sources provide the basis for defining what "phase-out" means and setting a regional timeline that is both realistic and verifiable.

4.1.1. Principles of a credible coal phase-out

IPCC pathways indicate that global unabated coal must be phased out by 2040 to align with 1.5°C targets.[179] The following are key conditions for countries to achieve coal phase-out in the power sector based on recommendations and best practices of the UNFCCC, IPCC, GCEL, and regional policy. These conditions are inspired in particular by FFA's nine Just Energy Transition (JET) Principles as set out in *A Future Without Coal* (2021), to be applied broadly to the energy transition. These include considerations related to renewable energy investment and governance that extend beyond the technical aspects of coal phase-out.[180]

Guiding principles for countries to achieve a credible coal phase-out:

1. **Binding national policy is adopted**, formally banning the installation of new grid-connected and captive coal plants, without exception.
2. **Coal phase-out is codified** in official policy and supplemented by a time-bound roadmap with government oversight, ensuring coal plants are pre-identified for decommissioning based on defined selection criteria and timelines are actively enforced.
3. **Unabated coal represents zero percent of the national electricity generation mix.** This is evidenced by mandatory GHG reporting by power-sector companies showing no coal-attributable Scope 1 emissions, with GHG inventory reporting subject to independent assurance.
4. **All coal plants in the grid are permanently retired, decommissioned, or otherwise converted** (in the short run) to cleaner alternative forms of power generation, including renewables or natural gas. Phase-out must extend to captive coal plants used in industrial operations.
5. **No investment in false solutions.** Where coal-to-gas conversions have already occurred or are under development, they should be assessed against stringent life-cycle emissions limits, methane management requirements, sunset dates before 2050, and safeguards to avoid long-term fossil fuel lock-in. Coal-to-gas conversion should not be treated as a default pathway where lower-carbon alternatives are technically and economically feasible. Their long-term environmental and social costs must be considered as an economic risk.
6. **Cessation of any future public or private financing, guarantees, or subsidies** supporting the coal power value chain, aligned with a swift phase-out of coal industries across the region by 2040 at the latest. This should include formal policies by central banks and financial regulators prohibiting domestic and international financial institutions from providing new financing to the coal power value chain.
7. **Former coal sites are covered by remediation plans** that specify clean-up targets, responsible parties, budgets, and post-closure monitoring.

8. **Just transition is supported with measurable outcomes** incorporating rights-based safeguards to enable coal phase-outs and the energy transition, including protections for workers and labor rights, land rights and FPIC, gender-transformative inclusion, energy access and affordability, and the protection of civic space and rights defenders. Monitoring and reporting of just transition outcomes and processes are performed as a collaboration between government, CSOs, labor rights groups, affected workers and communities, and power-sector companies.[viii]
9. **Rising electricity demand associated with AI and digital transformation is not used to justify new coal or fossil fuel capacity.** As AI adoption, cloud computing, and data centre development expand, their energy-intensive computing and cooling needs should instead be addressed through energy efficiency measures, grid optimization, and expansion of low-carbon power generation.

4.1.2. The coal phase-out timeline

The progress of coal phase-out or phase-down across Southeast Asia remains uneven. Implementation runs up against financial and political barriers and, across the region, achieving Paris-aligned emission targets is highly dependent on technical and financial support from international partners. Limiting warming to 1.7°C remains feasible under the IEA's Announced Pledges Scenario (APS), which accounts for all national climate announcements, commitments, and targets as of the end of 2024.[181] The APS does not require pledges be anchored in legislation or NDCs and, therefore, includes a wider scope of mitigation actions than are currently in effect. While not binding, this scenario demonstrates the mitigation potential of announced climate commitments if they were fully implemented.

Aligning with a 1.7°C pathway assumes the full and timely implementation of announced climate pledges, many of which are not yet supported by binding policies, detailed implementation plans, or delivery mechanisms. While still feasible, achieving a total phase-out of coal aligned with a 1.5°C pathway will therefore depend on immediate action followed by a time-bound and stepwise approach. This will require coordinated and sustained effort from all stakeholder groups, including government ministries, financial institutions, utility companies, and local communities. The following milestones represent policy, financial, and technical interventions that must be spearheaded by governments and their respective countries to achieve a complete phase-out of unabated coal power by 2040.

Table 4 Immediate to short-term milestones for national coal phase-out (2026–2028)

Action	Description	Rationale
Cancel coal expansion plans	Cancel all unpermitted coal projects and withdraw any permitted projects that have not reached financial close. This aligns with the IEA Net Zero by 2050 scenario as it does not allow new unabated coal plants beyond those under construction in 2023.	Avoids coal lock-in, reduces the lifetime carbon footprint of the power station, mitigates stranded asset risks, and is consistent with Paris-aligned energy-sector guidance.

viii Just transition considerations are elaborated in the Annex.

Action	Description	Rationale
Adopt a formal coal phase-out policy	Adopt a formal coal phase-out plan anchored by policy signaling plans to phase out of unabated coal by 2040 in line with Paris Agreement pathways.	Sets investor expectations, anchors utility planning, and establishes a legal basis for enforceable coal commitments.
Enact a coal moratorium with no exceptions	Adopt a moratorium on the construction of new captive or grid-connected coal plants, with no exemptions beyond projects that have already achieved financial closure.	Adopting a moratorium on new coal without exceptions avoids further emissions lock-in by preventing new CFPPs from entering the national energy pipeline.
Disclose a full coal inventory with vintages	Create a public registry of all grid-connected and captive coal plants. Disclose information on ownership, capacity, commissioning year, technology, generation or capacity factor, emissions, and PPA expiry dates.	Transparent reporting builds public trust and demonstrates a commitment to coal phase-out and just transition. This database will also be vital to coal phase-out sequencing decisions.
Develop and publish a national just transition plan and guidance	A national just transition plan outlines a country's strategy to shift to a green economy and to support workers, communities, and industries negatively impacted by the phase-out of coal. The plan should be developed in collaboration with stakeholders, ensuring they have opportunities to provide input and be involved in decision-making.	The just transition plan operationalizes energy transition commitments, guiding coordination across government ministries and ensuring a structured approach and safeguards to address transition-related impacts (e.g., job loss, income disruption).
Issue a retirement roadmap with transparent selection criteria	The retirement roadmap guides the sequence for retiring coal plants. Selection criteria are science-backed and transparent. Require all coal power plants to have site-level just transition plans aligned with national guidance.	Enables an orderly retirement schedule in which selection is transparent and criteria are informed by stakeholder feedback. The most polluting and least efficient units are prioritized, while decisions can also be influenced by other selection criteria, such as the proximity of coal plants to population centers.
Publish or update a national sustainable taxonomy	Designate new coal financing as ineligible and define narrow criteria for early retirement or managed phase-out (MPO) to be eligible, including science-backed emissions thresholds and third-party verification requirements.	Bolster sustainable economies, mitigate greenwashing risks, and maintain investor confidence. Ensure financing for coal plant phase-out guarantees absolute emission reductions compared with full operational lifespan.

Table 5 Medium-term milestones for national coal phase-out (2029–2035)

Action	Description	Rationale
Reach peak coal generation and begin sustained decline	Nations should aim to reach peak coal generation no later than 2030 and then decline on a path consistent with Paris-aligned scenarios. New unabated coal projects are not aligned with Paris pathways, therefore, new plants should be equipped with advanced sustainable renewable energy-linked technology and include plans to cease operations no later than 2040.	Maintains energy security while power grids transition to cleaner energy sources and sets a timeline within which urgent emission reduction actions must be pursued.

Action	Description	Rationale
Retire the oldest and most polluting units first	Oldest and least efficient plants, or those posing the most significant environmental or health impacts, should be retired first. Retirements should occur well before the end of the operational lifespan. IEA analysis shows that the average retirement age of Asian coal power plants under the Net Zero Emissions (NZE) Scenario is 25 years.[182]	Maximizes emissions reductions while maintaining limited exceptions for system reliability or energy security considerations. Targeting high-polluting CFPPs will have immediate environmental and health benefits.
Align finance and disclosure for MPO	Financed early CFPP retirement should be transparent and all information must be publicly disclosed, including power plant name and location, decommissioning date, and absolute avoided emissions. Third-party verification is required.	Keeps CFPP retirement financing transparent and standardized, mitigating greenwashing risks.

Table 6 Long-term milestones for national coal phase-out (2036–2040)

Action	Description	Rationale
Complete the coal exit by 2040	Unabated CFPPs are decommissioned by 2040 in alignment with the IEA's Net Zero by 2050 energy sector roadmap for a worldwide decarbonized power sector by 2040.[183]	Ensures alignment with Paris 1.5°C pathways and sets a transparent endpoint for coal phase-out commitments.
Decommission, remediate, and repurpose sites	The CFPP is fully decommissioned and the surrounding area is addressed through a comprehensive remediation plan. Site remediation progress and timelines are publicly available information.	Mitigates long-term environmental and public health risks and enables former coal sites to be used for new activities.
Close out worker and community commitments	All affected workers are placed, retrained or retired with benefits and time-bound income support. Community projects meet agreed targets for decent jobs, local enterprise support, and essential public services. Government and coal plant owners publicly publish results, budgets, and resolved grievances each year.	Protects affected workers and their families by ensuring affected individuals do not experience economic disruption or prolonged periods of hardship and maintains the health of the local economy.

A managed coal phase-out as detailed here delivers a range of environmental benefits, including reductions in GHG emissions, improvements in local air and water quality, and reduced ecological pressures from mining and waste by-products.[184] These improvements translate quickly into public health benefits through lower exposure to air pollutants, offering a tangible rationale for accelerated transition. However, environmental benefits alone do not address the distributional and livelihood impacts of coal exit. As countries move along time-bound phase-out pathways, these benefits should be complemented by robust social safeguards to ensure the transition remains equitable for the workers and communities most affected.

4.2. Social safeguards and just transition measures

The coal phase-out and overall energy transition involve socio-economic restructuring, with risks for coal-dependent workers and communities in the absence of safeguards. International frameworks, such as the ILO Guidelines and UNFCCC COP commitments, emphasize labor rights, social protection, and participation as core principles of a just transition.

In ASEAN countries, the coal phase-out and energy transition will leave workers, communities, and marginalized groups vulnerable in a variety of areas, including:

- **Employment and labor rights:** High levels of informality, weak union protections, and limited unemployment coverage for informal workers.
- **Community and land rights:** Economic shocks in coal-dependent regions, land use conflicts from the expansion of renewable energy projects, and weak enforcement of compensation laws.
- **Women and Indigenous Peoples:** Women are concentrated in informal work and underrepresented in science, technology, engineering, and mathematics (STEM). Indigenous Peoples face challenges to land rights and displacement linked to energy and carbon projects.
- **Energy access and affordability:** Access to energy in ASEAN has risen to 98%, but gaps persist in rural areas. Volatile tariffs and reliance on subsidies remain critical issues.
- **Governance and civic space:** Legal protections exist but enforcement is weak. The civic space is highly restricted and harassment of activists has been documented.

4.2.1. Social safeguard matrix for a coal phase-out

To address these vulnerabilities against the backdrop of a just transition in the six focus countries and the wider Southeast Asian region, a comprehensive social safeguard matrix is mapped below.

The matrix links:

- Key risk areas in ASEAN coal transitions;
- Priority safeguard measures;
- Lead actors (governments, regulators, financial institutions, utilities, CSOs); and
- Illustrative indicators for monitoring progress.

For **governments and regulators**, the matrix can be used to:

- Design national and regional just transition strategies;
- Embed social safeguards in coal retirement and energy planning decisions; and
- Align sectoral policies (energy, labor, social protection, land) around shared objectives.

For **financial institutions**, the matrix provides a checklist of minimum expectations that should be integrated in:

- Coal exit and transition finance policies;
- Client-level due diligence and engagement;
- MPO, ETM, and JETP financing covenants; and
- Disclosure and reporting under TCFD and emerging International Financial Reporting Standards – Climate-related Disclosures (IFRS S2)-aligned requirements.

Table 7 Social safeguard matrix for a coal phase-out in the six focus countries

Dimension	Key risks in ASEAN coal phase-out	Priority safeguards	Lead actors (examples)	Illustrative indicators (examples)
Employment and labor rights	Mass job losses in mines and coal power; high informality and exclusion from social protection; weak union rights; very limited unemployment insurance coverage for informal workers.	• Plant and regional-level workforce mapping (direct, contract, informal). • Guaranteed severance and income support for affected workers . • Expansion of unemployment benefits and social protection floors to cover informal workers. • Large-scale reskilling and job-matching programs aligned with renewable energy and other green sectors. • Legal reforms and practice changes to protect freedom of association (FOA) and collective bargaining (CB).	Labor and social ministries; finance and planning ministries; social security agencies; utilities and coal companies; financial institutions (through financing covenants); unions and employer associations.	• Number and share of workers mapped and enrolled in transition programs. • Share of displaced workers receiving income support and/or severance. • Number of workers retrained and re-employed in decent jobs. • Existence and enforcement of FOA/CB protections and just transition-related agreements.

Dimension	Key risks in ASEAN coal phase-out	Priority safeguards	Lead actors (examples)	Illustrative indicators (examples)
Community livelihoods and land rights	Loss of local revenues and SME demand in coal-dependent regions; land grabs and forced evictions linked to energy and infrastructure projects; weak and uneven enforcement of land and compensation laws.	• Regional economic diversification strategies developed before closure. • Protection against forced displacement; fair and timely compensation at market value. • Accessible grievance and remedy mechanisms with legal support. • Participatory land use and repurposing plans for retired coal sites. • Community benefit-sharing agreements for new energy projects.	National and local governments; land agencies; utilities and project developers; financial institutions; CSOs and community organizations.	• Number of coal-dependent regions with diversification strategies and budgets. • Incidence of forced evictions and land-related grievances. • Proportion of affected households receiving full and timely compensation. • Share of repurposed sites with community co-benefit arrangements.
Women and Indigenous Peoples	Women concentrated in informal, low-paid work; unpaid care burden; under-representation in energy and STEM; weak legal recognition and protection of Indigenous Peoples' rights; displacement and violence against Indigenous Peoples and forest communities.	• Gender-responsive labor and social protection policies; women-focused training and entrepreneurship programs. • Quotas or targets for women's participation in just transition planning bodies and green jobs. • Legal recognition and enforcement of Indigenous Peoples' land and resource rights; robust FPIC procedures. • No-go zones for projects in high-risk Indigenous Peoples' territories; protection of sacred sites. • Culturally appropriate vocational training and joint governance arrangements.	Gender and social affairs ministries; Indigenous Peoples' affairs bodies; local governments; utilities and developers; financial institutions; women's organizations; Indigenous Peoples' organizations.	• Share of women among beneficiaries of reskilling and just transition funds. • Female labor force participation in energy and green sectors. • Number of projects applying FPIC and signed community agreements. • Recorded cases of violence or evictions affecting Indigenous Peoples and outcomes of remedy processes.

Dimension	Key risks in ASEAN coal phase-out	Priority safeguards	Lead actors (examples)	Illustrative indicators (examples)
Energy access and affordability	Remaining access gaps; unreliable supply in rural areas; short-term tariff increases from new investments and coal decommissioning; subsidy schemes that do not reach all vulnerable groups.	• Integrated planning that combines coal retirement with grid reinforcement and decentralized renewables. • Social impact and tariff modeling for major transition decisions. • Well-targeted, fiscally sustainable energy subsidy schemes for low-income households. • Programs to support productive use of electricity in poor communities.	Energy ministries; regulators; utilities; finance and planning ministries; financial institutions and development partners.	• Population without access to electricity (urban and rural). • Frequency and duration of power outages in vulnerable regions. • Share of low-income households benefiting from energy subsidies or lifeline tariffs. • Tariff impact assessments conducted for major transition policies.
Governance, civic space, and accountability	Legal protections undermined by restrictive security laws; harassment and criminalization of unions, activists, and land defenders; limited transparency of coal retirement deals and transition finance.	• Legal and policy reforms to ensure civic space for unions, CSOs, and communities. • Protection of human rights defenders and whistleblowers. • Mandatory disclosure of coal retirement and MPO transaction terms, including social components. • Independent monitoring bodies with civil society participation. • Accessible grievance and remedy mechanisms linked to finance and licensing.	National governments (justice, interior, environment, labor); regulators; ombudsman institutions; financial institutions and development banks; CSOs and media.	• Civic space ratings and trend analysis. • Number of just transition-related consultations held and stakeholder groups engaged. • Public availability of financing agreements and social plans for ETM/JETP/MPO deals. • Number and resolution rate of grievances related to coal transition projects.

4.3. Recommended coal phase-out framework for financial institutions

Financial institutions play a decisive role in accelerating an orderly, equitable, and Paris-aligned coal phase-out across Asia. Even as governments advance their NDCs, sustainable taxonomies, and coal moratoriums, the financing system determines whether coal is retired early, allowed to run its course, or expanded through exemptions and loopholes. A coal phase-out that is not led and governed by strong financial sector guardrails is slower, costlier, and socially riskier.

Building on the findings in this study—including country coal pathways, regional taxonomy requirements, financing flows, early retirement models (ETM/JETP), and leading financial institution coal policies—this section sets out what a credible coal phase-out should look like from the perspective of financial institutions, delivered through a seven-step framework.

The framework aims to provide **financial institutions** with a unified, regionally realistic, Paris-aligned sequence of actions for exiting coal while supporting national energy security, community welfare, and clean energy investment.

4.3.1. Current status of financial institutions

Table 8 summarizes the coal transition commitments across major Japanese and Chinese financial institutions with exposure to coal. It outlines each institution's climate commitments, net-zero transition plans, and coal phase-out commitments. Findings suggest Japanese banks generally have more advanced coal phase-out timelines while Chinese banks reference national "Dual Carbon" strategies. These strategies refer to China's two-part climate goal of reaching peak carbon emissions by 2030 and achieving carbon neutrality by 2060.[185]

Table 8 Financial institution policy review

Financial institution	Climate commitment	Net-zero transition plan	Coal phase-out commitment
Mizuho Financial (Japan)	Aims to achieve net-zero GHG emissions (Scope 3) by 2050[186].	Net-Zero Transition Plan (formulated 2022; revised 2023) focusing on real economy transition, business opportunities, and risk management. Completed target setting for seven sectors (as of April 2024) for financed emissions reduction, aligned with Net-Zero Banking Alliance (NZBA) guidelines. Engages clients and may cease relations if no progress is shown.[187]	Phasing out financing for thermal coal mining under its Environmental and Social Policy. Targets zero financing balance for thermal coal mining by FY2030 (OECD) and FY2040 (non-OECD). Will achieve zero credit balance for coal-fired power generation by FY2040.[188]
Mitsubishi UFJ Financial (Japan)	Declared the MUFG Carbon Neutrality Declaration (May 2021), aiming for carbon neutrality by 2050[189].	2030 interim net-zero targets for eight sectors (power, oil and gas, real estate, steel, shipping, automotive, aviation, coal). Plan includes client engagement, green transformation (GX) support, and scaling sustainable finance to JPY 100 trillion by 2030.[190]	Will not finance new or expanded coal-fired power projects. Exceptions only for CCUS or mixed combustion projects aligned with Paris goals. Targets zero coal financing by FY2040 (non-OECD).[191]

Financial institution	Climate commitment	Net-zero transition plan	Coal phase-out commitment
ICBC (China)	Formulated a group-wide "carbon peak and carbon neutrality" work plan (no specific date)[192]	Plans to establish a roadmap and timeline for gradual withdrawal from coal financing[193]	Committed to develop a coal withdrawal roadmap and timeline.
SMBC Group (Japan)	Aims for net-zero GHG emissions in loan and investment portfolios by 2050[194]	Transition Finance Playbook to support Paris-aligned client transitions. Set medium-term portfolio GHG reduction targets for six sectors (power, oil and gas, coal, steel, automotive, real estate).[195]	Includes a defined coal phase-out strategy. Targets zero balance for project and corporate finance related to coal by FY2040.[196]
Bank of China (China)	Actively aligned with the national strategy of carbon peaking and carbon neutrality[197]	Sustainability policy to support green transition of high-emitting clients[198]	Will no longer provide financing for new coal mining and coal power projects outside China from the fourth quarter of 2021 onwards, except for the projects already contracted.[199]
CITIC (China)	Supports national carbon-peaking and neutrality goals[200]	Three-year green finance plan and completed a climate risk study[201]	No explicit phase-out; mandates elimination of coal units designated for closure by the state
China Construction Bank (China)	Aligns with national carbon-peaking and neutrality goals[202]	Strategic Plan for Green Finance Development (2022–2025)[203]	No explicit phase-out; focuses on guiding resources to low-carbon sectors[204]
Agricultural Bank of China (China)	Supports China's carbon-peaking and neutrality goals[205]	Green Finance Development Plan (2021–2025)[206]	No explicit phase-out; emphasizes green transition financing
China Merchants Bank (China)	Guided by China's Dual Carbon strategy (carbon peaking by 2030, neutrality by 2060)[207]	Strengthened climate governance framework and refined green development strategy	No explicit phase-out; eliminates coal enterprises not meeting national standards[208]
Ping An Insurance Group (China)	Supports China's carbon-peaking and neutrality goals[209]	Advances responsible banking and supports low-carbon technologies such as CCUS through transition finance[210]	No timeline provided; committed to cease underwriting new coal and thermal power projects overseas[211]

4.3.2. Coal phase-out policy development for financial institutions

In addition to these 10 financial institutions, several other major regional financiers—including Sumitomo Mitsui Trust (Japan), OCBC (Singapore), United Overseas Bank (UOB) (Singapore), CIMB Group (Malaysia), and Maybank (Malaysia)—have adopted coal phase-out policies and set timelines for exiting coal-related financing, as documented in publicly disclosed institutional policies, sustainability reports, and independent media reporting, reflecting emerging regional leadership in sustainable finance policy development.[212]

The impact of voluntary commitment withdrawals

The global landscape for financial climate commitments is shifting. The recent withdrawal of several major international financial institutions from voluntary platforms like the Net-Zero Banking Alliance (NZBA) and the removal of "Carbon Neutral" labels have created uncertainty in the market.

For Asian financial institutions, this trend underscores the risks of relying solely on voluntary international commitments. It highlights the significant role of robust national regulations and regionally adapted frameworks, such as the ASEAN Taxonomy, to provide a stable, long-term policy signal that withstands fluctuations in global corporate sentiment.

Coal phase-out policies and transition elements of the selected financial institutions use criteria drawn from the SBTi's Fossil Fuel Finance Position Paper; the Glasgow Financial Alliance for Net Zero's (GFANZ) *Financing the Managed Phaseout of Coal-Fired Power Plants in Asia Pacific* (December 2023); the Rocky Mountain Institute's (RMI) *Managed Coal Phaseout: Metrics and Targets for Financial Institutions*; and the Climate Policy Initiative's (CPI) *Emissions Accounting in Managed Coal Phaseout Finance* (2023). While these frameworks collectively define what a robust coal phase-out policy should include, they are not all necessarily reflected in the current policies of the financial institutions highlighted in this study. In practice, the following eight pillars are the benchmark criteria for financial institutions to meet prevailing best-practice expectations for coal phase-out:

1. **Scope and coverage:** Comprehensive inclusion of all financial products (loans, underwriting, investments) with explicit look-through provisions for indirect exposures.
2. **No new coal commitments:** Absolute exclusion of financing for new coal assets, capacity expansions, or onboarding of coal-primary clients.
3. **Time-bound exit strategy:** Dated phase-out schedules for existing coal exposures across project and corporate portfolios, with interim milestones before 2030.
4. **Client engagement protocol:** Structured engagement frameworks with defined timelines, performance requirements, and escalation consequences.
5. **Exception management:** Transparent exception criteria with mandatory sunset provisions and public disclosure requirements.

6. **Early retirement facilitation:** Explicit provisions for MPO financing with additionality requirements and clean replacement mandates.
7. **Gas transition guardrails:** Constraints on natural gas financing to prevent carbon lock-in, including intensity thresholds and decline pathways.
8. **Just transition integration:** Mandatory social safeguards addressing labor protection, community welfare, and inclusive decision-making processes.
9. **No expansion for AI or digital energy demand:** Rising energy demand from digital transformation must not be used to justify further fossil fuel or coal expansion.

The role of regulation and IFRS S2

The regulatory environment across Asia is progressively strengthening expectations for credible transition planning. Recent moves to adopt IFRS S2 (International Financial Reporting Standard 2 – Climate-related Disclosures) in several markets are shifting climate-related reporting from a voluntary practice to regulated disclosure. While IFRS S2 does not mandate the development of a transition plan, its detailed requirements on strategy, risks, and targets are prompting listed companies and large financial institutions to articulate clearer climate-related responses—including transition pathways—to meet emerging compliance obligations on disclosure.[213]

Within this context, financial institutions are increasingly expected to assess the credibility of client transition plans to manage exposure to climate-related risks and ensure alignment with regulatory and market expectations. Credible plans typically demonstrate:

- The use of **recognized methodologies** to align emissions pathways with 1.5°C-consistent scenarios, where applicable to the institution's risk framework or jurisdictional guidance.
- **Quantified emissions reduction targets** across short-, medium-, and long-term horizons, supported by clear assumptions and interim milestones.
- **Defined governance arrangements** that clarify oversight, accountability, and decision-making responsibilities for implementing the plan.
- **Measures to avoid carbon lock-in**, including independent evaluations of lock-in risks prior to approving transition finance.[214]
- By strengthening comparability and elevating minimum expectations for climate-related reporting, IFRS S2 can enable financial institutions to evaluate transition risks, shape capital allocation, and support credible decarbonization across the real economy.

4.3.3. Stepwise coal phase-out framework for financial institutions

Based on empirical evidence from this study and a synthesis of best practices, the following is a proposed framework for financial institutions to implement a credible coal phase-out.

Table 9 A recommended seven-step framework for coal phase-out for financial institutions

Step		Financial institution action	Outcome	Examples of commitments and practices (non-exhaustive)
1	Immediate prohibition of coal expansion support	Prohibit the provision of financial and advisory services to any company undertaking, planning, or committing to new coal-fired power generation or other coal expansion activities.	Prevention of new coal capacity development, avoidance of additional carbon lock-in, and immediate cessation of coal-related portfolio growth.	La Banque Postale (France) is the world's first bank committed to full coal exit by 2030, banning financing to any company developing coal through immediate prohibition of all coal expansion.[215] OCBC Singapore has committed to a complete exit from coal power financing by 2040, with no financing for new CFPPs and thermal coal mining.[216] Mizuho has prohibited financing and investment used to fund the new construction of coal-fired power generation facilities or the expansion of existing facilities. Mizuho also prohibits transactions with new clients whose primary business is thermal coal mining.[217] Kasikornbank's ESG Credit Policy places thermal coal businesses on its Exclusion List, explicitly disallowing new credit, extensions of existing credit, and debt capital markets (DCM) support, and committing to reduce outstanding loans to CFPPs to zero by 2030.[218]
2	Commit to a global phase-out of thermal coal by 2040	Publicly commit to a complete global phase-out of thermal coal exposure by 2040, supported by interim milestones and portfolio-level glide paths.	Clear market signaling that enables orderly transition planning by clients and investors and aligns coal exit timelines with Paris-aligned benchmarks.	CIMB is committed to phasing out thermal coal from its portfolio by 2040. For its existing clients, CIMB has an established threshold, stating it will not finance existing thermal coal mining clients that derive more than 50% combined direct revenue from thermal coal.[219]

Step		Financial institution action	Outcome	Examples of commitments and practices (non-exhaustive)
3	Mandate client transition planning	Require all fossil fuel clients to submit 1.5°C-aligned transition plans with capital allocation disclosure.	This step shifts focus from exclusion to active engagement, mandating that clients in hard-to-abate sectors develop and demonstrate credible strategies aligned with climate goals.	Mizuho's Transition Finance Framework requires clients' transition pathways to be aligned with the Paris Agreement. The bank has built a verification framework to assess the credibility and transparency of client transition strategies and will only finance business-structure transformation after internal verification.[220] DBS Bank's (DBS) updated Transition Finance Framework requires clients to present credible transition plans as a condition of financing. According to its FY2024 Sustainability Report, DBS is "insisting and ensuring that clients have credible transition plans," including requests for independent validation of those plans.[221]
4	Escalate engagement to ensure transition compliance	Deploy time-bound, escalated engagement where clients fail to meet interim coal exit milestones, violate agreed transition plans, or pursue new coal-related activities.	Escalation protocols ensure accountability by linking failure to meet transition commitments to tangible consequences, such as restricted access to capital or enhanced financing conditions.	HSBC has committed to phasing out thermal coal financing in EU/OECD markets by 2030 and worldwide by 2040. HSBC states it will work with affected clients and expects them to develop and publish transition plans by the end of 2023 that are compatible with HSBC's net-zero target. Client transition plans are assessed annually, including an assessment of the level of ambition to reduce GHG emissions and the credibility of the transition strategy. HSBC states it will assess whether to end its relationship with a client if these requirements are not met. HSBC also states it will not provide advisory services to any client that does not engage sufficiently on its transition plan or where the plan is not compatible with HSBC's net-zero target, and that it will withdraw financing from any client that commits to thermal coal expansion after 2020.[222]
5	Finance early retirement of thermal CFPPs	Allocate dedicated financing to support the managed early retirement of thermal CFPPs, including through blended finance and MPO structures.	Financial institutions provide targeted capital solutions to accelerate the closure of high-emitting CFPPs, often through MPOs or MPO operations.	Maybank formally reviewed and enhanced its coal position in 2023 to allow the financing of MPOs of CFPPs. This allowance is conditional upon fulfilling internally developed guardrails that ensure a holistic assessment of environmental and social factors surrounding the MPO. MPOs are defined as efforts to reduce GHG emissions through the accelerated retirement of high-emitting physical assets.[223] SMBC Group includes supporting MPO projects in its transition plan. For example, SMBC was involved in a case study of the early retirement/decommissioning of CFPPs in Australia and their conversion to batteries, resulting in the coal plants shutting down up to 10 years earlier than initially planned. SMBC Group also provides solutions for decarbonization, such as project finance.[224]

	Step	Financial institution action	Outcome	Examples of commitments and practices (non-exhaustive)
6	Protect people from transition-related harms	Integrate just transition and human rights requirements in financing covenants, due diligence, and monitoring frameworks to prevent and mitigate adverse social impacts.	Ensures that climate and coal phase-out actions protect workers, communities, and vulnerable groups from displacement, loss of livelihoods, and human rights risks arising from the transition.	The European Investment Bank (EIB) embeds just transition in its Energy Lending Policy, requiring social impact assessment for any fossil/coal-related divestment or closure.[225] It applies the EIB Environmental and Social Standards, which include: Standard 7: Rights and interests of affected communities Standard 9: Labor and working conditions, including retraining and job transition pathways Mandatory stakeholder engagement plans for affected workers and communities[226] SMBC Group explicitly includes just transition as an underlying principle of its Transition Finance Playbook, mandating that investments should maximize social and economic opportunities through consultations with affected groups. It affirms its respect for internationally recognized human rights (International Bill of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work) and conducts human rights due diligence for both corporates and projects.[227]
7	Report transparently on coal exposure and transition progress	Publish comprehensive annual disclosures on coal exposure, phase-out progress, interim targets, exceptions, and just transition-related social metrics, supported by independent assurance.	Enhanced transparency and accountability enable independent verification of coal exit commitments, strengthen stakeholder confidence, and support credible monitoring of transition progress.	BNP Paribas publishes detailed annual dashboards that show coal exposure by region, sector, and instrument, year-on-year reductions, and client-level alignment thresholds.[228] Apart from using independent assurance to validate disclosures, it also discloses its alignment with GCEL thresholds. Crédit Agricole publishes a granular breakdown of financing exposure by energy type, clients under phase-out, as well as low-carbon versus high-carbon ratios. The financial institution reports annually on coal exit KPIs.[229]

Delivering a coal phase-out that is both rapid and equitable will require unprecedented coordination across governments, development organizations, industry and financial institutions, including MDBs, which play a critical role in leading and supporting coal-phase outs with regional financial institutions. Clear policy signals, enforceable timelines, and robust environmental and social safeguards must be paired with innovative financing solutions to accelerate early retirement and scale clean energy alternatives.

As ASEAN economies navigate this transition, the priority is not only to meet climate targets but to do so in a way that protects livelihoods, strengthens energy security, and positions the region for sustainable growth. The next five years will be decisive—turning commitments into action will determine whether Southeast Asia can lead a just and orderly shift away from coal.

REFERENCES

1 Southeast Asia Energy Outlook 2024 (International Energy Agency, 2024), Accessed online; Climate Change 2022 Mitigation of Climate Change (Intergovernmental Panel on Climate Change, 2022), Accessed online.

2 Coal Phase Out and Energy Transition Pathways for Asia and the Pacific (United Nations Economic and Social Commission for Asia and the Pacific, 2021), Accessed online.

3 'COP30 Approves Belém Package', COP30 Brasil, November 2025, Accessed online; 'Belém Action Mechanism on Just Transition: A Breakthrough for Workers amid Major Failures at COP30', International Trade Union Confederation November 2025, Accessed online.

4 Global Coal Project Finance Tracker', Global Energy Monitor, 2025, Accessed online.

5 Saurabh Trivedi and Shantanu Srivastava, 200 and Counting: Global Financial Institutions Are Exiting Coal (Institute for Energy Economics and Financial Analysis, 2023), Accessed online.

6 Boom and Bust Coal 2025: Tracking the Global Coal Plant Pipeline (Global Energy Monitor 2025), Accessed online.

7 '7 Criteria for a Credible Coal Phase-Out Plan', Global Coal Exit List, Accessed online.

8 Boom and Bust Coal 2025: Tracking the Global Coal Plant Pipeline.

9 Kachi, A. et al., Financing Coal Phase-out (NewClimate and I4CE, 2024), Accessed online.

10 Climate Change 2022 Mitigation of Climate Change.

11 Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach (2023 Update) (International Energy Agency, 2023), Accessed online.

12 Asia Pacific's Energy Transition Outlook (BloombergNEF, October 2024), Accessed online; 'Greenhouse Gas Emissions from Energy Data Explorer', International Energy Agency, Accessed online.

13 Southeast Asia Energy Outlook 2024.

14 'UN Backs Vietnam in Green Transition and NDC 3.0 Development', Ministry of Agriculture and Environment of the Socialist Republic of Vietnam, August 2025, Accessed online.

15 Renewable Power: Sharply Falling Generation Costs (International Renewable Energy Agency 2017), Accessed online.

16 'Climate Change and Financing a Just Transition', International Labour Organization, Accessed online.

17 'Climate Action Tracker', Climate Action Tracker, Accessed online.

18 Istu Septania and Jonas Kuehl, 'A Just Transition in the Making: The Story behind East Kalimantan's New Regional Consultation Forum', JET Knowledge Hub, 2025, Accessed online.

19 Boom and Bust Coal 2025: Tracking the Global Coal Plant Pipeline.

20 Xinyue Ma, 'Who Funds Overseas Coal Plants and How the G20 Can Advance the Global Coal Phase-Out', Boston University Global Development Policy Center, Accessed online.

21 'China to Stop Building New Coal-Fired Power Projects Abroad: Xi', China Daily, 2021, Accessed online.

22 'South Korea and Japan Will End Overseas Coal Financing. Will China Catch Up?', World Resources Institute, June 2021, Accessed online.

23 Charmaine Kong, 'Japan Phases Out Coal Power in Export Policy', Earth.Org, 2020, Accessed online; Shuang Liu, Ye Wang, and Yan Wang, 'South Korea and Japan Will End Overseas Coal Financing. Will China Catch Up?', World Resources Institute, June 2021, Accessed online.

24 'Japan's Coal Obsession', Energy Tracker Asia, May 2022, Accessed online.

25 2021 ENERGY POLICY OF THE ASIAN DEVELOPMENT BANK: SUPPORTING LOW-CARBON TRANSITION IN ASIA AND THE PACIFIC (Asia Development Bank, June 2023), Accessed online.

26 Brief Note on Asian Development Bank's Energy Policy Review (Asia Development Bank, August 2025), Accessed online.

27 Toward a Sustainable Energy Future for All: Directions for the World Bank Group's Energy Sector (World Bank), Accessed online.

28 Daniel Willis and Novita Indri, Coal Not yet Confined to the "Old Days" by World Bank Group (Bretton Woods Project, December 2023), Accessed online.

29 Maintaining a Stable Electricity Grid in the Energy Transition (International Centre for Sustainable Carbon, January 2024), Accessed online.

30 Laplane, J., C. Rajeevan and J.W. van Gelder, Fair Finance Guide International Methodology 2025 (Amsterdam, The Netherlands: Profundo, 2025).

31 World Energy Outlook 2024 (International Energy Agency, 2024), Accessed online; Global LNG Outlook 2024-2028 (Institute for Energy Economics and Financial Analysis, 2024), Accessed online.

32 Global LNG Outlook 2024-2028.

33 A Guide to a Just and Inclusive Energy Transition in ASEAN (ASEAN Centre for Energy, January 2025), Accessed online.

34 World Energy Outlook 2025 (International Energy Agency, 2025), Accessed online.

35 Renewable Power Generation Costs in 2024 (International Renewable Energy Agency, 2025), Accessed online.

36 Gordon et al., 'Evaluating Net Life-Cycle Greenhouse Gas Emissions Intensities from Gas and Coal at Varying Methane Leakage Rates', Environmental Research Letters 18 (July 2023), Accessed online.

37 'Green Taxonomy: The Path to a Sustainable Future', Kaizen Institute, Accessed online.

38 ASEAN Taxonomy for Sustainable Finance - Version 4 (ASEAN Taxonomy Board, 2025), Accessed online.

39 Indonesia Taxonomy for Sustainable Finance (Version 2) (Jakarta, Indonesia: Financial Services Authority (Otoritas Jasa Keuangan, OJK), 2025), Accessed online; 'Thailand Taxonomy: Driving the Thai Economy Towards Sustainability', Bank of Thailand, 2025, Accessed online.

40 Khalid Azizuddin, 'Investors Welcome Coal Phase Out Addition to ASEAN Taxonomy', Responsible Investor, April 2023, Accessed online.

41 Will the New Indonesian Taxonomy for Sustainable Finance Really Serve Its National Interest? (Institute for Energy Economics and Financial Analysis, 2024), Accessed online.

42 Hans Nicholas Jong, 'Flawed Energy Road Map May Block Indonesia's Coal Exit, Critics Warn', Mongabay, May 2025, Accessed online.

43 Comprehensive Investment and Policy Plan (CIPP) 2023 (Just Energy Transition Partnership (JETP) Indonesia, 2023), Accessed online.

44 MEMR 10/2025: A Bold Roadmap for Sustainable Electricity', ABNR Counsellors at Law, June 2025, Accessed online.

45 Jong, 'Flawed Energy Road Map May Block Indonesia's Coal Exit, Critics Warn'.

46 Ibid.

47 Sartika Nur Shalati and Agung Budiono, 'Indonesia's Coal Retirement Roadmap: How the New Regulation Can Ensure a Truly Just Transition', JET Knowledge, June 2025, Accessed online.

48 Mark Nicholls, ACEN Renewables – Using Transition Credits to Accelerate Coal Closure (Just Transition Finance Lab, Grantham Research Institute on Climate Change and the Environment, London School of Economics, December 2024), Accessed online.

49 Ibid.

50 Gabrielle See, Verra Launches World's First Transition Credits Methodology (Eco-Business, May 2025), Accessed online.

51 Ibid.

52 Ibid.

53 'Asian Civil Society Flags Concerns over ADB's Energy Transition Mechanism', Asian Power, 2023, Accessed online.

54 Asian Development Bank's Energy Transition Mechanism: Emerging Social, Environmental, and Rights-Based Considerations – A Quick Guide (Oxfam Fair Finance Asia, 2023), Accessed online.

55 To Phase Down: A Renewed Approach to Coal Power in Developing Countries (The World Bank, 2024), Accessed online.

56 Cambodia: Electricity Profile (International Energy Agency), Accessed online.

57 Vichet Keo, Cambodia Country Report (Ministry of Mines and Energy, Cambodia, 2022), Accessed online; Southeast Asia Energy Outlook 2024.

58 Cambodia's Updated Nationally Determined Contribution (Phnom Penh, Cambodia: National Council for Sustainable Development, Ministry of Environment, Kingdom of Cambodia, 2020), Accessed online.

59 Long-Term Strategy for Carbon Neutrality (Phnom Penh, Cambodia: National Council for Sustainable Development, Ministry of Environment, Kingdom of Cambodia, 2021), Accessed online.

60 Power Development Master Plan 2022–2040 (Phnom Penh, Cambodia: Ministry of Mines and Energy, Cambodia, 2022), Accessed online.

61 Chea Vanyuth, 'No More Coal Plants, Says PM', Khmer Times, December 2023, Accessed online.

62 Ibid.

63 Cambodia's Third Nationally Determined Contribution (NDC 3.0) (Phnom Penh, Cambodia: National Council for Sustainable Development, Ministry of Environment, Kingdom of Cambodia, 2025), Accessed online.

64 'Cambodia Country Commercial Guide', International Trade Administration, 2025, Accessed online.

65 'Cambodia Advances Sustainable Finance with Taxonomy Draft', Khmer Times, April 2025, Accessed online.

66 'Cambodia's Infrastructure Market Update and Outlook', PwC, 2022, Accessed online

67 'Sihanoukville CIIDG Power Station 2', Global Energy Monitor Wiki, Accessed online.

68 Cambodia's Third Nationally Determined Contribution (NDC 3.0); 'China to Stop Financing Overseas Coal Power Projects', Argus, 2021, Accessed online.

69 Indonesia: Electricity Profile, Web page (International Energy Agency), accessed 30 October 2025, Accessed online.

70 Muzayanah, I. F. U. et al., 'Population Density and Energy Consumption: A Study in Indonesian Provinces', Heliyon, no. 9 (2022), Accessed online.

71 Katherine Hasan and Nadine Zahiruddin, Indonesia's RUPTL 2025–2034: Fossils First, Renewables Later (Centre for Research on Energy and Clean Air, 2025), Accessed online.

72 Saurabh Chaturvedi and Mokhtar Nadhir, 'Indonesian Coal Output, Exports Decline in 2025', Argus, 2026, Accessed online.

73 Updated Nationally Determined Contribution (NDC) of the Republic of Indonesia 2021 (Jakarta, Indonesia: Ministry of Environment and Forestry, Republic of Indonesia, 2021), Accessed online.

74 Indonesia Long-Term Strategy for Low Carbon and Climate Resilience 2050 (LTS-LCCR 2050) (Jakarta, Indonesia: Ministry of Environment and Forestry, Republic of Indonesia, 2021), Accessed online.

75 Enhanced Nationally Determined Contribution (NDC) of the Republic of Indonesia 2022 (Jakarta, Indonesia: Ministry of Environment and Forestry, Republic of Indonesia, 2022), Accessed online.

76 Indonesia Renewable Energy Briefing (Norton Rose Fulbright, 2025), Accessed online.

77 MEMR 10/2025: A Bold Roadmap for Sustainable Electricity (Jakarta, Indonesia: ABNR Counsellors at Law, 2025), Accessed online.

78 Second Nationally Determined Contribution: Republic of Indonesia (Ministry of Environment and Forestry of the Republic of Indonesia, 2025), Accessed online.

79 Ruth Dea Juwita, 'Indonesia Pushes Back Peak Emissions Target by Five Years to 2035', Asia News Network (ANN), October 2025, Accessed online.

80 Indonesia: MEMR Regulation No. 10 of 2025 on the Early Retirement of Coal-Fired Power Plants (Jakarta, Indonesia: Baker McKenzie, November 2021), Accessed online.

81 Mutya Yustika, Two Years After Launch, Indonesia's Carbon Market Struggles to Find Momentum (Institute for Energy Economics and Financial Analysis, 2025), Accessed online.

82 Kurniawati Hasjanah, Review: The Effectiveness of State Budget Allocation for Energy Transition (Jakarta, Indonesia: Institute for Essential Services Reform, 2024), Accessed online.

83 Indonesia Green Taxonomy Edition 1.0 (Jakarta, Indonesia: Financial Services Authority (Otoritas Jasa Keuangan, OJK), 2022), Accessed online.

84 'Indonesia's New Green Investment Rulebook Includes Coal Power Plants', Reuters, February 2024, Accessed online.

85 Indonesia Taxonomy for Sustainable Finance (Version 2); Sustainable Finance Taxonomy Guidebook - Version 2 Module 4; 'Indonesia: Trends and Developments', Chambers and Partners, November 2025, Accessed online.

86 Ines Alanah, Berliana Yusuf, and Luthfyana Kartika Larasati, 'Financing the Fast Wins: Indonesia's Opportunity to Lead on Methane through Its Sustainable Finance Taxonomy', Climate Policy Initiative, August 2025, Accessed online.

87 Climate Risk Management and Scenario Analysis (CRMSA) (Jakarta, Indonesia: Financial Services Authority (Otoritas Jasa Keuangan, OJK), 2024), Accessed online.

88 Hasan and Zahiruddin, Indonesia's RUPTL 2025–2034: Fossils First, Renewables Later.

89 Ibid.

90 Indonesia Wants to Go Greener, but PLN Is Stuck With Excess Capacity From Coal-Fired Power Plants (Institute for Energy Economics and Financial Analysis, November 2021), Accessed online.

91 'Indonesia Releases Its 35 GW Power Capacity Addition Plan', Enerdata, 2015, Accessed online.

92 'China to Stop Financing Overseas Coal Power Projects'.

93 Indonesia Renewable Energy Briefing.

94 'Three Years after Glasgow: Banks' Global Coal Financing on the Rise Again', BankTrack, 2025, Accessed online.

95 Laos: Electricity Profile (International Energy Agency), Accessed online.

96 'Laos Signs $1.94 Billion Clean Energy Deal with Chinese Industrial Company', The Straits Times, March 2025, Accessed online.

97 Naoaki Inayoshi and Sota Nejime, 'Lao PDR's Electricity Sector: Risk or Opportunity?', ASEAN Macroeconomic Research Office, 2023, Accessed online.

98 Nationally Determined Contribution (Vientiane, Lao PDR: Ministry of Natural Resources and Environment, Lao People's Democratic Republic, 2021), Accessed online.

99 National Strategy on Climate Change towards 2030 (Vientiane, Lao PDR: Ministry of Natural Resources and Environment, Lao People's Democratic Republic, 2023), Accessed online.

100 Technical Recommendations for Lao People's Democratic Republic Long-Term Low Emission Development Strategy (Washington, DC, USA: The World Bank, 2024), Accessed online

101 Ibid.; Tim Daiss, 'Laos' Net-Zero 2050: Renewable Power Generation Challenges and Opportunities', Energy Tracker Asia, October 2024, Accessed online.

102 Lao Government Adopts Carbon Credit Decree (Global Green Growth Institute, June 2025), Accessed online.

103 The Bank of Lao PDR and International Finance Corporation Workshop on "Laos Green Finance" (Bank of Lao PDR, March 2025), Accessed online.

104 'Phonesack Invests $4 Billion in Coal-Fired Power Plant to Boost Laos-Cambodia Energy Connectivity', Lao News Agency, October 2025, Accessed online.

105 Laos: Electricity Profile.

106 'Phonesack Invests $4 Billion in Coal-Fired Power Plant to Boost Laos-Cambodia Energy Connectivity'.

107 Naoaki Inayoshi and Sota Nejime, 'Lao PDR's Electricity Sector: Risk or Opportunity?', AMRO, December 2023, Accessed online.

108 An Energy Sector Roadmap to Net Zero Emissions for Lao PDR (ASEAN Centre for Energy, 2025), Accessed online.

109 2024 Power Statistics (Department of Energy, Philippines, 2025), Accessed online.

110 Ibid.; Advisory on the Moratorium of Endorsements for Greenfield Coal-Fired Power Projects In Line with Improving the Sustainability of the Philippines' Electric Power Industry (Manila, Philippines: Department of Energy, Republic of the Philippines, December 2020), Accessed online.

111 Nationally Determined Contribution (Manila, Philippines: Climate Change Commission, Republic of the Philippines, 2021), Accessed online.

112 Advisory on the Moratorium of Endorsements for Greenfield Coal-Fired Power Projects In Line with Improving the Sustainability of the Philippines' Electric Power Industry.

113 Power Development Plan 2023–2050 (Manila, Philippines: Department of Energy, Republic of the Philippines, 2025).

114 'Five Years of Powering a Sustainable Energy Future in Southeast Asia', United Nations Office for Project Services, Accessed online.

115 Memorandum No. M-2024-028 (Bangko Sentral ng Pilipinas, 2024), Accessed online.

116 Accelerating Coal Transition Investment Plan for the Philippines (Climate Investment Funds, June 2024), Accessed online.

117 REPUBLIC ACT NO. 12120 (Congress of the Philippines, January 2025), Accessed online.

118 Philippine Sustainable Finance Taxonomy Guidelines (Bangko Sentral ng Pilipinas, 2024), Accessed online.

119 Advisory on the Moratorium of Endorsements for Greenfield Coal-Fired Power Projects In Line with Improving the Sustainability of the Philippines' Electric Power Industry.

120 Philippine Energy Plan (PEP) 2023–2050, Volume I (Manila, Philippines: Department of Energy, Republic of the Philippines, 2023), Accessed online.

121 'ASEAN Banks Make Climate Strides, But Fossil Fuel Financing Remains a Drag: ARE', Carbon Wire, 2025, Accessed online.

122 Thailand: Electricity Profile (International Energy Agency), Accessed online.

123 Ibid.; Thailand Energy Industry Report (Italian Trade Agency, September 2024), Accessed online.

124 Thailand's Updated Nationally Determined Contribution (Bangkok, Thailand: Office of Natural Resources and Environmental Policy and Planning, Kingdom of Thailand, 2020), Accessed online.

125 Thailand's 2nd Updated Nationally Determined Contribution (Bangkok, Thailand: Office of Natural Resources and Environmental Policy and Planning, Kingdom of Thailand, 2022), Accessed online.

126 Thailand Long-Term Low Greenhouse Gas Emission Development Strategy - Revised Version (Bangkok, Thailand: Office of Natural Resources and Environmental Policy and Planning, Kingdom of Thailand, 2022), Accessed online.

127 Thailand's NDC 3.0 (Kingdom of Thailand Department of Climate Change and Environment, November 2025), Accessed online.

128 Rithmanee, D. et al., 'Thailand: Climate Change Bill - Aligning with International Standards', Baker McKenzie, February 2025, Accessed online.

129 Karen Chouksey et al., Thailand's Climate Finance Landscape: Bridging the Gap to Net Zero, ADB Briefs (Asia Development Bank, August 2025), Accessed online.

130 Policy Statement of Bank of Thailand: Internalizing Environmental and Climate Change Aspects into Financial Institution Business (Bangkok, Thailand: Bank of Thailand), Accessed online.

131 Thailand Taxonomy Phase 2 Launches to Drive the Country's Transition Towards Sustainability (Bangkok, Thailand: Bank of Thailand, June 2023), Accessed online.

132 Joint Press Release 'Publication of Thailand Taxonomy Phase 2' (Bangkok, Thailand: Bank of Thailand, May 2025), Accessed online.

133 Thailand: Thai Cabinet Approves Carbon Tax on Oil and Oil Products (Baker McKenzie, February 2025), Accessed online.

134 Indonesia Taxonomy for Sustainable Finance (Version 2); 'Thailand Taxonomy: Driving the Thai Economy Towards Sustainability'.

135 'Power Plan: A Setback for Sustainable Energy', ASEAN Energy Database System (AEDS), Accessed online.

136 'Missed Energy Transition Opportunity', Climate Finance Network Thailand, 2024, Accessed online.

137 Thailand Long-Term Low Greenhouse Gas Emission Development Strategy - Revised Version.

138 'ASEAN Banks Make Climate Strides, But Fossil Fuel Financing Remains a Drag: ARE'.

139 'Hongsa Power Station', Global Energy Monitor Wiki (Global Energy Monitor), Accessed online.

140 Viet Nam: Electricity Profile (International Energy Agency), Accessed online.

141 'Viet Nam', Ember, 2025, Accessed online.

142 Updated Nationally Determined Contribution (Hanoi, Viet Nam: Ministry of Natural Resources and Environment, Socialist Republic of Viet Nam, 2020), Accessed online.

143 Nationally Determined Contribution - UPDATED IN 2022 (Hanoi, Viet Nam: Ministry of Natural Resources and Environment, Socialist Republic of Viet Nam, 2022), Accessed online.

144 Decision No. 896/QD-TTg Approving the National Strategy for Climate Change Until 2050 (Hanoi, Viet Nam: Prime Minister of the Socialist Republic of Viet Nam, July 2022), Accessed online.

145 Nguyen Hanh Vu, 'Vietnam Revises PDP8: Key Targets of the National Power Development Plan', Vietnam Briefing, April 2025, Accessed online.

146 Katy Lee, 'Vietnam's Central Bank Announces Updated Green Credit Framework', Green Central Banking, August 2024, Accessed online.

147 Vietnam Carbon Market Forum 2025 (Hanoi, Viet Nam: Ministry of Natural Resources and Environment, Socialist Republic of Viet Nam, April 2025), Accessed online.

148 Green Finance Spotlight: Vietnam's Green Taxonomy Officially Issued – Paving the Way for Sustainable Investment Waves (FiinGroup Joint Stock Company, July 2025), Accessed online.

149 Vietnam's PDP8 Signals Policy Confusion About the Economics of Coal (Institute for Energy Economics and Financial Analysis, September 2021), Accessed online.

150 'China to Stop Financing Overseas Coal Power Projects'; Liu, Wang, and Wang, 'South Korea and Japan Will End Overseas Coal Financing. Will China Catch Up?'

151 Decision No. 896/QD-TTg Approving the National Strategy for Climate Change Until 2050.

152 Bangladesh: Electricity Profile (International Energy Agency), Accessed online.

153 Bangladesh's Third Nationally Determined Contribution (NDC 3.0) (Ministry of Environment and Forestry and Climate Change, Government of the People's Republic of Bangladesh, 2025), Accessed online.

154 Policy on Green Bond Financing for Banks and Financial Institutions (SFD Circular No. 05) (Dhaka, Bangladesh: Bangladesh Bank, September 2022), Accessed online.

155 Brunei Darussalam: Electricity Profile (International Energy Agency), Accessed online.

156 India: Electricity Profile (International Energy Agency (IEA)), Accessed online; Pai Sandeep, 'Fossil Fuel Phase Outs to Meet Global Climate Targets : Investigating the Spatial and Temporal Dimensions of Just Transitions', The University of British Columbia, June 2021, Accessed online.

157 Anupam Chatterjee, 'India May Export 30 Mil Mt/Year of Coal to Bangladesh, Sri Lanka by 2030', S&P Global (S&P Global, May 2023), Accessed online; Akshay Shivalkar, 'India's Coal Exports Rise 23.4% to 1.91 Million Tonnes in FY25', Angel One, October 2025, Accessed online.

158 'Oil and Gas Industry in Malaysia', Malaysian Investment Development Authority, Accessed online.

159 Malaysia: Electricity Profile (International Energy Agency), Accessed online.

160 Irina Slav, 'Petronas Keeps the Gas Flowing as Malaysia Burns More Coal', Yahoo! Finance, Oil Price, 2025, Accessed online.

161 No New Coal Factbook (Ember, October 2021), Accessed online; From Tenaga to Tindakan: Sparking Malaysia's Coal-to-Clean Transition (TransitionZero, May 2025), Accessed online.

162 National Energy Transition Roadmap: Energising the Nation, Powering Our Future (Malaysia Ministry of Economy, 2023), Accessed online.

163 Choy Nyen Yiau, 'Climate Change Bill Slated for First Parliament Sitting of 2026, Says Johari Ghani', The Edge Malaysia, November 2025, Accessed online.

164 Sustainability Report 2024 (CIMB, 2024), Accessed online; 'Our Sustainability Journey', Maybank (Maybank), Accessed online.

165 'Sarawak Launches Landmark Energy Transition Policy at Public-Industry Engagement Day', Energy Asia, August 2025, Accessed online.

166 Myanmar: Electricity Profile (International Energy Agency), Accessed online.

167 'Myanmar's Energy Deficit Worsening Amid Civil Conflict', Fitch Solutions, December 2024, Accessed online.

168 Pakistan: Electricity Profile (International Energy Agency), Accessed online.

169 Isaad, H. et al., Repurposing Pakistan's Coal-Based Assets (Institute for Energy Economics and Financial Analysis (IEEFA), October 2025), Accessed online.

170 Ibid.; Ziying Song et al., Sunrise and Sunset – Accelerating Coal Phase Down and Green Energy Deployment in Pakistan: An Analysis of the Political Economy (Green Finance & Development Center, FISF Fudan University, August 2023), Accessed online.

171 Kalbe Ali, 'Nepra Member Flags Power Sector Inefficiencies', Dawn, May 2025, Accessed online.

172 'Pakistan – Climatescope 2022 Market Profile', BloombergNEF (BNEF), Accessed online.

173 Ariba Shahid, 'Pakistan to Push Chinese Utilities in Pakistan to Switch to Domestic Coal', Reuters, July 2024, Accessed online.

174 'Thar Block II Coal Mine', Global Energy Monitor Wiki, Accessed online.

175 Project Brief: Health Hazards - A Study on the Environmental Impacts of Coal Mining and Coal-Based Power Generation in Tharparkar (Policy Research Institute for Equitable Development, 2022), Accessed online.

176 Project Brief: Coal Power and Livelihood Disruptions in Thar (Policy Research Institute for Equitable Development, 2022), Accessed online.

177 Energy Profile: Timor-Leste (International Renewable Energy Agency, 2025), Accessed online.

178 Timor-Leste Updated NDC 2022-2030 (Government of the Democratic Republic of Timor-Leste, 2022), Accessed online.

179 '7 Criteria for a Credible Coal Phase-Out Plan'.

180 A Future Without Coal: Banking on Asia's Just Energy Transition (Oxfam Fair Finance Asia, 2021), Accessed online.

181 'Announced Pledges Scenario', International Energy Agency (International Energy Agency), Accessed online.

182 'Phasing out Coal', in World Energy Outlook 2021 (International Energy Agency, 2021), Accessed online.

183 Net Zero by 2050: A Roadmap for the Global Energy Sector (International Energy Agency, 2021), Accessed online.

184 Ge, W. et al., 'The Short-Term Comprehensive Impact of the Phase-out of Global Coal Combustion on Air Pollution and Climate Change', Environmental Pollution 367 (2025), Accessed online.

185 Chunquan Zhu and Carol Zhou, 'How Chinese Enterprises Are Acting on Climate by Meeting China's Dual Carbon Goals', World Economic Forum, 2023, Accessed online.

186 'Mizuho's Approach to Achieving Net Zero by 2050', Mizuho (Mizuho Financial Group, Inc.), Accessed online.

187 Climate & Nature-Related Report 2024 (Mizuho Financial Group, 2024), Accessed online.

188 Ibid.

189 MUFG Carbon Neutrality Declaration (Mitsubishi UFJ Financial Group, 2021), Accessed online.

190 MUFG Climate Report 2025 (Mitsubishi UFJ Financial Group, 2025), Accessed online.

191 Ibid.

192 Corporate Social Responsibility Report 2023 (Industrial and Commercial Bank of China Ltd., 2024), Accessed online.

193 Jevans Nyabiage, 'China: ICBC to "Establish a Road Map and Timeline for the Gradual Withdrawal of Coal Financing", Bank's Chief Economist Announces', Business and Human Rights Centre, 2021, Accessed online.

194 Net Zero Transition Plan (Sumitomo Mitsui Financial Group, 2022), Accessed online.

195 Transition Finance Playbook 3.0 (Sumitomo Mitsui Financial Group, 2025), Accessed online.

196 Progress Report on Addressing Climate Change (Sumitomo Mitsui Financial Group, 2025), Accessed online.

197 Corporate Social Responsibility Report 2024 (Bank of China Ltd., 2025), Accessed online.

198 Annual Report on Bank of China's 2023 Transition Bond (Bank of China, 2025), Accessed online.

199 Corporate Social Responsibility Report 2024.

200 2024 Sustainability Report (China CITIC Bank Corporation Limited, 2025), Accessed online.

201 'Environment-Related Governance Framework and Management System', China Citic Bank, Accessed online.

202 2025 Semi-Annual Sustainable Finance Report (China Construction Bank, 2025), Accessed online.

203 Ibid.

204 Ibid.

205 2021 Green Finance Development Report (Agricultural Bank of China, 2022), Accessed online.

206 Ibid.

207 Sustainability Report 2024 (China Merchants Bank, 2025), Accessed online.

208 Ibid.

209 Ping An Sustainability Report 2024 (Ping An, 2025), Accessed online.

210 Ibid.

211 Ibid.

212 'Sumitomo Mitsui Trust Bank Announces End of New Coal Power Project Financing', Bank Track, July 2018, Accessed online; 'Our Approach to Phase Out Thermal Coal Financing', Development Bank of Singapore (DBS), Accessed online; Energy Sector Policy (United Overseas Bank), Accessed online; Our Path to Net Zero: Charting a Course to Decarbonisation (Version 2.0) (CIMB, 2024), Accessed online.

213 IFRS S2: Climate-Related Disclosures (International Financial Reporting Standards, 2025), Accessed online.

214 Transition Finance Scorebook 2024 (SMBC Group, November 2024), Accessed online.

215 2024 Universal Registration Document (La Banque Postale, 2025), Accessed online.

216 Azizuddin, 'Singapore's Top Three Banks Open to Coal Phase Out Financing', Responsible Investor, 2024, Accessed online.

217 Mizuho Financial Group Climate and Nature-Related Report 2025 (Mizuho Financial Group, 2025), Accessed online.

218 'Credit Policy on Environment, Social and Governance and Sector-Specific Guidelines', KBank (Kasikorn Bank), Accessed online.

219 Sustainable Finance Framework (Commerce International Merchant Bankers Berhad, 2024), Accessed online.

220 Mizuho Financial Group Climate and Nature-Related Report 2025.

221 SUSTAINABILITY REPORT 2024 (Development Bank of Singapore, 2025), Accessed online.

222 HSBC Announces Thermal Coal Phase-out Policy (HSBC, 2021), Accessed online.

223 Banking on a Better Tomorrow: Our Commitment to Net Zero (Maybank, 2024), Accessed online.

224 Transition Finance Scorebook 2024.

225 EIB Energy Lending Policy: Supporting the Energy Transformation (European Investment Bank, 2023), Accessed online.

226 Environmental and Social Standards (European Investment Bank, 2022), Accessed online.

227 SUSTAINABILITY REPORT 2025 (Sumitomo Mitsui Banking Corporation, 2025), Accessed online.

228 Laurence Pessez, BNP PARIBAS CSR STRATEGY (BNP Paribas, 2025), Accessed online.

229 ESG-CLIMAT 2024 REPORT (Credit Agricole, 2025), Accessed online.

230 Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All (International Labour Organization, 2015), Accessed online.

231 ILO Welcomes COP26 Just Transition Declaration (International Labour Organization, November 2021), Accessed online.

232 Assessment of the Role of Coal in the ASEAN Energy Transition and Coal Phase-out (ASEAN Centre for Energy, May 2024), Accessed online; A Guide to a Just and Inclusive Energy Transition in ASEAN.

233 A Just Energy Transition in Southeast Asia: The Impacts of Coal Phase-out on Jobs (International Labour Organization, 2022), Accessed online.

234 A Guide to a Just and Inclusive Energy Transition in ASEAN.

235 'COP30 Approves Belém Package'; 'Belém Action Mechanism on Just Transition: A Breakthrough for Workers amid Major Failures at COP30'.

236 'COP30 Approves Belém Package'.

237 'The Baku-to-Belém Roadmap – Actionable Plan for Climate Finance Support or Just Another Report to Be Shelved?', Heinrich Böll Stiftung, October 2025, Accessed online.

238 Kiam Gilliver, '"Outrageous": COP30 Draft Deal Drops Mention of Fossil Fuels despite Calls for Transition Roadmap', Euro News, November 2025, Accessed online.

239 'Cambodia's Constitution of 1993 with Amendments through 2008', Constitution 1993, Accessed online.

240 'Cambodia Legal Profile'.

241 Ibid.

242 'Indonesia's Constitution of 1945, Reinstated in 1959, with Amendments through 2002', Constitution 1945, Accessed online.

243 'Indonesia Legal Profile'.

244 'Lao People's Democratic Republic's Constitution of 1991 with Amendments through 2015', Constitution, Accessed online.

245 'Laos Legal Profile'.

246 'Philippines's Constitution of 1987', Constitution 1987, Accessed online; 'Philippines Legal Profile', International Trade Union Confederation, Accessed online.

247 2025 ITUC Global Rights Index: The World's Worst Countries for Workers (International Trade Union Confederation), Accessed online.

248 'Philippines Legal Profile'.

249 'Thailand's Constitution of 2017', Constitution 2017, Accessed online.

250 'Thailand Legal Profile', International Trade Union Confederation, Accessed online.

251 'Cambodia Widens Scope of Social Security to Cover Private Pensions and Unemployment', Ogletree Deakins, 2020, Accessed online; 'Country Profiles: Cambodia', International Social Security Association, 2024, Accessed online.

252 'Country Profiles: Indonesia', International Social Security Association, 2024, Accessed online.

253 'Country Profiles: Lao People's Democratic Republic', International Social Security Association, 2024, Accessed online.

254 'Country Profiles: Philippines', International Social Security Association, 2024, Accessed online.

255 'Country Profiles: Thailand', International Social Security Association, 2024, Accessed online.

256 Cambodia's Constitution of 1993 with Amendments through 2008; 'Civic Freedom Monitor: Cambodia', International Center for Not-For-Profit-Law, 2025, Accessed online.

257 'Civic Freedom Monitor: Cambodia'.

258 Ibid.

259 Indonesia's Constitution of 1945, Reinstated in 1959, with Amendments through 2002.

260 'Civic Freedom Monitor: Indonesia', International Center for Not-For-Profit-Law, 2025, Accessed online.

261 Ibid.

262 Lao People's Democratic Republic's Constitution of 1991 with Amendments through 2015; 'Laos', Freedom House, 2025, Accessed online.

263 'Laos: Social Media Critic Arrested for Exposing Bribery While Land Rights Protesters Detained', CIVICUS, 2024, Accessed online; 'Laos: Increased Surveillance around ASEAN Meeting, Myanmar Activists Deported and No Progress around Disappearances', CIVICUS, 2024, Accessed online; 'Laos 2024', Amnesty International, Accessed online.

264 'Laos', 2025; 'Laos: Social Media Critic Arrested for Exposing Bribery While Land Rights Protesters Detained', 2024.

265 'Laos 2024'; 'Laos: Democracy Activists Arrested: Free All Wrongfully Detained; Permit Peaceful Rally', Human Rights Watch, November 2019, Accessed online.

266 'Laos', CIVICUS, Accessed online.

267 Philippines's Constitution of 1987.

268 'Civic Freedom Monitor: Philippines', International Center for Not-For-Profit-Law, 2025, Accessed online.

269 Ibid.

270 Ibid.

271 Thailand's Constitution of 2017.

272 'Civic Freedom Monitor: Thailand', International Center for Not-For-Profit-Law, 2025, Accessed online.

273 Ibid.

274 Ibid.

275 'Land', Council for the Development of Cambodia, Accessed online; 'Law on Expropriation' (2010), Accessed online.

276 "Nobody Wants to Leave their Home" Mass Forced Evictions at Cambodia's UNESCO World Heritage Site of Angkor (Amnesty International, 2023), Accessed online; CCHR Fact Sheet: Forced Evictions in Cambodia (Citizens Commission on Human Rights, 2024), Accessed online; Cambodia: Joint Submission to the UN Universal Periodic Review – 46th Session (International Federation for Human Rights); Cambodian Human Rights and Development Association, October 2023), Accessed online.

277 Cambodia: Joint Submission to the UN Universal Periodic Review – 46th Session.

278 Addressing Legal and Regulatory Barriers to Quality Infrastructure Investment in India, Indonesia and the Philippines (Organization for Economic Co-operation and Development, October 2025), Accessed online.

279 'KPA Highlights Rampant Official Repression in 2023 Agrarian Conflicts', Tempo, January 2024, Accessed online; Hans Nicholas Jong, 'Jokowi's Land Reform Agenda Stalls as Conflicts Nearly Double, Report Shows', Mongabay, January 2024, Accessed online.

280 Lao People's Democratic Republic's Constitution of 1991 with Amendments through 2015; 'Property Law in Laos', Law Gratis, March 2025, Accessed online.

281 'Laos: Social Media Critic Arrested for Exposing Bribery While Land Rights Protesters Detained', CIVICUS, 2024, Accessed online; 'Laos', 2025; 'Laos 2024'; 'Lao Protest Villager Freed, 11 Still Held', Farmlandgrab.Org, January 2019, Accessed online.

282 Philippines's Constitution of 1987.

283 'Republic Act No. 8371', 8371 Laws of the Republic of the Philippines 1997, Accessed online.

284 Carlos H. Conde, 'Philippines Worst in Asia for Killings of Environmental Defenders', Human Rights Watch, September 2024, Accessed online; 'Philippines: Events of 2024', Human Rights Watch, 2024, Accessed online.

285 Thailand's Constitution of 2017; Mingkwan Chawankon, 'Legal Control of Adverse Economic Impacts form the EEC Project: Focusing on Land Problem', Thammasat Business Law Journal 9 (2019), Accessed online.

286 Chawankon, 'egal Control of Adverse Economic Impacts from the EEC Project: Focusing on Land Problem'.

287 Climate Disinformation in Thailand: Negating Indigenous People's Identity (Asia Centre, 2025), Accessed online; 'Thailand: UN Experts Warn against Heritage Status for Kaeng Krachan National Park', United Nations Human Rights Office of the High Commissioner, July 2021, Accessed online.

288 Socio-Economic Footprint of the Energy Transition Southeast Asia (International Renewable Energy Agency, 2023), Accessed online.

289 ASEAN Employment Outlook The Quest for Decent Work in Platform Economy: Issues, Opportunities and Ways Forward (ASEAN Secretariat, March 2023), Accessed online; Employment Challenges and Policies in ASEAN (International Labour Organization, September 2024), Accessed online.

290 Srestha Banerjee, Just Transition and Informal Workers in Coal Regions in India (International Forum for Environment, Sustainability & Technology, 2022), Accessed online.

291 Coal in Net Zero Transitions Strategies for Rapid, Secure and People-Centred Change (International Energy Agency, 2022), Accessed online.

292 Rebecca O'Rourke, 'Exploring Contract Jobs in Renewable Energy: Pros and Cons', NES Fircroft, (March 2024), Accessed online.

293 Devashree Saha, Ginette Walls, and David Waskow, 'Energy Transition Implications for Workers Supported by Oil and Gas', in Just Transitions in the Oil and Gas Sector: Considerations for Addressing Impacts on Workers and Communities in Middle-Income Countries (World Resources Institute, 2023), Accessed online.

294 'International Trade Union Confederation', International Trade Union Confederation, Accessed online.

295 2025 ITUC Global Rights Index: The World's Worst Countries for Workers.

296 Socio-Economic Footprint of the Energy Transition Southeast Asia.

297 'Country Profiles', International Social Security Association, Accessed online.

298 'Country Profiles: Indonesia'.

299 'Country Profiles: Philippines'.

300 'Country Profiles: Viet Nam', International Social Security Association, 2024, Accessed online.

301 'Building a Sustainable Future in Coal-Producing Regions', Institute for Essential Services Reform, October 2025, Accessed online.

302 Redefining Future Jobs Implication of Coal Phase-out to the Employment Sector and Economic Transformation in Indonesia's Coal Region (Institute for Essential Services Reform, 2022), Accessed online.

303 Hannah Ritchie, 'How Does the Land Use of Different Electricity Sources Compare?', Our World In Data, 2022, Accessed online.

304 Gabrielle See, 'Not a given That Renewables Will Be Harmless': How Poor Siting Could Slow Southeast Asia's Energy Transition, August 2025, Accessed online.

305 'Countries', Constitute Project,, Accessed online.

306 "Nobody Wants to Leave their Home" Mass Forced Evictions at Cambodia's UNESCO World Heritage Site of Angkor; CCHR Fact Sheet: Forced Evictions in Cambodia; 'Vietnam's Revised Land Law Won't Stop Unfair Land Grabs: Critics', Radio Free Asia, 2024, Accessed online; 'Laos: Social Media Critic Arrested for Exposing Bribery While Land Rights Protesters Detained', 2024.

307 Climate Disinformation in Thailand: Negating Indigenous People's Identity; 'The Intractable Problem of Land Grabbing in Cambodia', Equal Times, 2023, Accessed online; 'KPA Highlights Rampant Official Repression in 2023 Agrarian Conflicts'.

308 "Nobody Wants to Leave their Home" Mass Forced Evictions at Cambodia's UNESCO World Heritage Site of Angkor; CCHR Fact Sheet: Forced Evictions in Cambodia.

309 'Thailand 2024', Amnesty International, 2024, Accessed online.

310 Carbon Offset Deals and the Risks of 'Green Grabbing' (International Institute for Sustainable Development, 2024), Accessed online.

311 ASEAN Guideline on Gender Mainstreaming into Labour and Employment Policies Towards Decent Work for All (ASEAN Secretariat, 2021), Accessed online.

312 Ibid.

313 Ibid.

314 Ibid.; Future Ready: Powering Girls for a Green Economy Transformation in Asia (United Nations Children's Fund, October 2024), Accessed online.

315 World Energy Employment 2024 (International Energy Agency, 2025), Accessed online.

316 Future Ready: Powering Girls for a Green Economy Transformation in Asia.

317 ASEAN Guideline on Gender Mainstreaming into Labour and Employment Policies Towards Decent Work for All.

318 'Advancing a Just Transition with Indigenous Peoples', 2024, Accessed online.

319 The Indigenous World 2024 (International Work Group for Indigenous Affairs, 2024), Accessed online.

320 Ibid.

321 Maya Quirino, 'Criticality and the Securitization of Southeast Asia's Indigenous Mineral Resources', Heinrich-Böll-Stiftung Southeast Asia, February 2025, Accessed online.

322 'Indigenous Peoples and a Just Energy Transition: Voices from Latin America', Natural Resource Governance Institute, May 2025, Accessed online.

323 'Indigenous Peoples Call for Just Energy Transition', United Nations Human Rights Office of the High Commissioner, October 2025, Accessed online.

324 Climate Disinformation in Thailand: Negating Indigenous People's Identity; 'Thailand 2024'; 'Thailand: UN Experts Warn against Heritage Status for Kaeng Krachan National Park'.

325 Climate Disinformation in Thailand: Negating Indigenous People's Identity.

326 'Land Is Life: Indigenous Women Confronting Land-Grabbing and Deforestation in Cambodia', JASS Just Power, March 2025, Accessed online.

327 'Advancing a Just Transition with Indigenous Peoples'.

328 Laura Cameron, Freddie Huppe Campbell, and Mackenzie Roop, Sustainable Jobs for Indigenous Clean Energy Action (International Institute for Sustainable Development, August 2024), Accessed online.

329 Quirino, 'Criticality and the Securitization of Southeast Asia's Indigenous Mineral Resources'.

330 'Access to Electricity Stagnates, Leaving Globally 730 Million in the Dark', International Energy Agency, October 2025, Accessed online; 'Access to Electricity', International Energy Agency, Accessed online.

331 'Access to Electricity'.

332 'Access to Electricity Stagnates, Leaving Globally 730 Million in the Dark'.

333 Green and Low-Carbon Transition of Power Sector in Southeast Asia: Baseline and Pathway (BRI International Green Development Coalition, 2023), Accessed online.

334 Climate Resilience of Energy Infrastructures in Southeast Asia (Yusof Ishak Institute, 2022), Accessed online.

335 'Energy', World Bank Group, June 2025, Accessed online.

336 Household Air Pollution (World Health Organization, October 2024), Accessed online.

337 Accelerating the Productive Use of Electricity (International Bank for Reconstruction and Development, 2023), Accessed online.

338 'Energy'.

339 Increasing Renewables Will Reshape Electricity Prices, May 2025, Accessed online.

340 'Rural Electrification Fund's Programmes', International Energy Agency, May 2023, Accessed online.

341 'Electricity Subsidies Total Rp34.6 Trillion through May 2025', ANTARA, July 2025, Accessed online.

342 'Govt Rolls out US$10m Subsidy to Ease Electricity Costs', Vientiane Times, November 2025, Accessed online.

343 'Republic Act No. 11552: An Act Extending and Enhancing the Implementation of the Lifeline Rate, Amending for the Purpose Section 73 of Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act of 2001," As Amended by Republic Act No. 10150' 2021, Accessed online.

344 Electricity Tariffs (Provincial Electricity Authority, 2023), Accessed online; 'Power Move: Thai Cabinet Extends Electricity Subsidy to Ease Shock', Thaiger, March 2025, Accessed online.

345 'Electricity Price Adjustment from May 10: Poor Households and Social Policy Beneficiaries Will Continue to Receive Support for Electricity Bills', EVN Vietnam Electricity, 2025, Accessed online.

ANNEXES

Overview of just transition

A just transition is defined here as the process of shifting energy systems away from high-carbon sources like coal, while proactively addressing the social, economic, and environmental impacts of this shift.

The energy transition involves socio-economic restructuring, with risks for coal-dependent workers and communities in the absence of safeguards. The International Labour Organization (ILO) established the global standard for this process in 2015 with *Guidelines for a Just Transition*, which linked environmental goals with decent work, social protection, and meaningful participation. This framework was reinforced at COP26, where over 30 nations committed to strategies supporting workers and communities based on these guidelines.[230,231]

For ASEAN, the push for a just transition is driven by the region's heavy reliance on coal for energy security, the rapid growth of renewables, and the need to align decarbonization with social equity and economic growth.[232] This is increasingly reflected in:

- National energy plans that reference "just and inclusive" transitions;
- The rising prominence of the Just Energy Transition Partnership (JETP) in Indonesia and Vietnam; and
- The Energy Transition Mechanism (ETM) in the Philippines and Indonesia.

For coal, this translates into recognition that plant retirements, the redeployment of labor from mining and CFPPs, and the diversification of regional economies will all be required if the transition is to be socially sustainable.[233] Coal-dependent regions are being recognized as places where the energy transition could create significant social risks but also important opportunities.[234]

Evolution of the just transition

The framing of "just transition" has evolved significantly across successive Conference of Parties (COPs), moving from a labor-focused concept to a multidimensional framework embedded in global climate governance. Initially formalized through the ILO Guidelines in 2015, which linked environmental objectives with decent work and social protection, the concept gained political traction at COP24 in Katowice, where Parties recognized the need for workforce and community safeguards in climate action. COP26 marked a turning point with over 30 nations committing to just transition strategies, reinforcing the principle of inclusive participation.

COP30 in November 2025 saw the establishment of the Just Transition Mechanism. Also known as the Belém Action Mechanism (BAM), it is the first global framework of its kind under the UN climate process designed to coordinate and support just transition efforts globally.[235] BAM aims to support workers and communities, enhance knowledge sharing and technical assistance, strengthen capacity building, and center human rights and social justice in countries' energy transition journeys.[236] Developing countries and civil society groups advocated for binding financial commitments and a minimum share of grant-based finance from developed countries, but these were not agreed, which may limit support for social and transition-related measures.[237]

COP30 fell short of establishing a binding roadmap for the phase-out of fossil fuels as the draft language was removed from the final agreement, leaving transitions dependent on voluntary timelines without global uniformity, while also failing to address critical mineral supply and governance considerations.[238]

Based on the just transition framework development, **Table 10** depicts the current international and regional reference points

that collectively emphasize labor rights, social protection, meaningful participation, and human rights-based approaches as core components of any credible coal phase-out pathway.

Table 10 Key international and regional just transition reference points relevant to coal phase-out

Key guideline/framework	Just transition coverage
Powering Past Coal Alliance (PPCA) Finance Principles (2021)	Responsible coal phase-out principles for financial institutions.
Just Energy Transition Partnerships (JETP)	Mobilizes transition finance while promoting social inclusion, worker protection, and community safeguards.
Energy Transition Mechanism	Blended finance mechanism enabling early coal retirement while supporting energy transition and social safeguards.
A Guide to a Just and Inclusive Energy Transition in ASEAN (ACE, 2025)	Regional guidance on inclusive energy transitions, addressing jobs, skills, equity, and social protection.
ASEAN Taxonomy Essential Criteria (EC) 3: Social Aspects (ATB 2024)	Activities must not harm social aspects, including human rights, labor protections, and affected communities.
Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All (ILO, 2016)	Foundational principles on labor rights, social dialogue, decent work, and inclusive transitions.
Sectoral Policies for a Just Transition towards Environmentally Sustainable Economies and Societies for All (ILO, 2022)	Sector-specific policy tools to manage worker impacts and support inclusive low-carbon transitions.
A Just Energy Transition in Southeast Asia: The Impacts of Coal Phase-out on Jobs (ILO, 2024)	Assesses employment impacts of coal phase-out and policy options for worker transition support.
The Business Case for Just Transition: An Overview of the Economic Benefits of the Transition to a Sustainable Economy (ILO, 2024)	Demonstrates economic, employment, and social benefits of integrating just transition principles.
A Globally Just Transition: Perspectives from the Committee for Development Policy (United Nations Department of Economic and Social Affairs (UN DESA), 2023)	Explores equity, development, and global justice considerations in low-carbon economic transitions.

Social vulnerability in ASEAN

Coal phase-out and the wider energy transition may affect workers, communities, and vulnerable groups differently across ASEAN countries, depending on labor market conditions, social protection systems, civic space, land governance, and access to remedy. The following section provides country-level context relevant to the design and monitoring of social safeguards. This context is intended to support just transition planning and does not assign responsibility to any specific institution or actor.

Country-level context for social safeguards in coal phase-out planning

As shown in **Table 11**, conditions in the six focus countries vary in terms of labor rights and worker protections, social protection, civic space, participation, and land rights. These conditions are relevant to coal phase-out planning because they shape how workers, communities, CSOs, labor rights groups, and affected groups can participate in transition processes, access protections, and seek remedy where needed. In general:

- **Labor rights and social protection:** Formal labor protections and social insurance systems exist in several countries, but coverage and implementation vary, particularly for informal, self-employed, contract, and other vulnerable workers.
- **Civic space and participation:** Legal protections for association, expression, and assembly exist in many countries, but practical constraints may affect the ability of workers, communities, CSOs, and rights defenders to participate in or monitor transition processes.
- **Land rights and access to remedy:** Land and compensation frameworks exist across the region, but implementation conditions, land tenure systems, and access to grievance and remedy mechanisms vary by country.

Table 11 Country-level context on labor protections, social protection, civic space, participation, and land rights

	Cambodia	Indonesia	Lao PDR	Philippines	Thailand
Labor rights and worker protections	Freedom of association (FOA)* exists in law but is not adhered to in practice.[239] Significant legal/ political barriers to organizing.[240] Collective bargaining (CB)** highly limited and subject to state control.[241]	FOA exists in law and unions do operate.[242] However, FOA and CB are highly restricted in practice.[243]	FOA exists in law but is highly restricted in practice, with a single, state-controlled union.[244] Strikes are banned.[245]	Although FOA exists in law, there are significant legal and political barriers to organizing and striking.[246] Union leaders and members jailed.[247] CB is legally possible but highly restricted and undermined.[248]	FOA exists in law.[249] However, FOA and CB are highly restricted in practice.[250]

	Cambodia	Indonesia	Lao PDR	Philippines	Thailand
Social protection and income security	Law on Social Security Schemes passed in 2019, which includes unemployment benefits but unemployment benefits have not yet been implemented.[251]	Functioning unemployment insurance program but excludes informal and self-employed workers.[252]	Functioning, legally established unemployment and social insurance system.[253] Contributory and tied to formal employment. No universal income floor.	Formal unemployment insurance program.[254] Informal workforce excluded from unemployment benefits. Short benefit duration (maximum two months).	Unemployment protection and a developed contributory system.[255] Coverage is limited to the formal sector.
Civic space, social dialogue and participation	Constitution protects rights to FOA, FOE, and freedom of assembly (FOAssembly) but are fully overridden by multiple restrictive laws.[256] Severe and systemic enforcement, including arrests, prosecutions, media shutdowns, and digital surveillance.[257] Lèse-majesté, telecommunications surveillance, and Law on Emergency Management and National Administration nullify FOE***/FOA/FOAssembly**** in practice.[258]	Constitutional rights to FOE, FOA, and FOAssembly.[259] Broad laws (Electronic Information Law, Intelligence Law, Criminal Code provisions for treason and blasphemy) significantly restrict practice.[260] Enforcement against civic actors is selective but sometimes severe.[261]	Formal constitutional protections exist but are universally overridden by one-party control and coercive enforcement.[262] Documented arrests, repression of protests, shutting down dissent, deportations, enforced disappearances, and violence against activists.[263] Lack of free media, independent judiciary, and due process.[264] Pattern of arresting peaceful community protestors.[265] Civic space assessed globally as “closed”.[266]	Constitutional protections for FOE/FOA/Assembly.[267] Multiple restrictive criminal laws, including defamation, sedition, false news, incitement, and online libel.[268] National security enforcement (Executive Order 70) widely used against activists and journalists.[269] Selective or aggressive enforcement, including arrests, raids, and abductions.[270]	Constitutional protections for FOE/FOA/FOAssembly.[271] Broad exceptions (“public order,” “national security”) significantly narrow these rights.[272] Restrictive laws are actively enforced, including lèse-majesté, sedition, cybercrime, and defamation.[273] Protests are regularly restricted or forcibly dispersed.[274]

	Cambodia	Indonesia	Lao PDR	Philippines	Thailand
Protection from forced displace-ment and land seizure	Land and expropriation laws exist.[275] Long history of laws being routinely undercut by large-scale forced evictions and land concessions, with ongoing high-profile cases.[276] Human rights groups document persistent evictions and limited avenues for remedy.[277]	Detailed laws and procedures exist and are applied for ownership and fair compensation for expropriated land.[278] Protections are not consistently enforced. Recurring agrarian conflicts, large areas and households affected, plus research documenting coercive experiences and legal uncertainty.[279]	Laws provide fair compensation for expropriation based on market value, but land is structurally controlled by the state.[280] Pervasive land concessions linked to corruption and repeated punishment of peaceful land rights protesters, including arrests, violence, and long prison sentences, indicate that people lack real protection against land seizure and that abuses are systemic rather than isolated.[281]	Land rights and fair compensation for expropriation are embedded in the constitution.[282] Indigenous Peoples' Rights Act recognizes ancestral lands and requires FPIC.[283] Protections are not consistently upheld in practice and there are ongoing reports of killings and disappearances of land and environmental rights defenders, with 17 murders or disappearances of activists in 2023.[284]	Constitutional and statutory protections and compensation rules for expropriation of land.[285] Reports of land consistently assessed below market value.[286] Several documented cases of forced evictions linked to national conservation efforts, particularly affecting Indigenous Peoples and forest communities, where there have been reports of forced evictions, harassment, violence, and home burnings.[287]

*Freedom of association (FOA) is the right of workers to form, join, and lead unions or worker organizations without interference.

**Collective bargaining (CB) is the right of workers and unions to negotiate wages, working conditions, and rights with employers.

***Freedom of expression (FOE) is the right to speak, advocate, and share opinions (including on labor issues) without censorship or retaliation.

****Freedom of assembly (FoAssembly) is the right to gather peacefully, including for protests, meetings, and worker mobilization.

The following subsections summarize the main areas of social vulnerability that may need to be considered in coal phase-out and energy transition planning across ASEAN. These themes inform the safeguard priorities and illustrative indicators presented in the main report.

Employment and labor rights

A key challenge for advancing a just transition in ASEAN relates to labor market and institutional conditions that shape worker representation and protections. The following points outline key labor-related challenges that should be considered and

provide an understanding of the current regional employment landscape in energy and related industries.

High rates of informal and contract employment

Informal employment is the dominant form of employment across ASEAN Member States, accounting for 75.2% of workers in agriculture and 68.8% in industry.[288] ASEAN's 2023 employment report states that 244 million workers in ASEAN are in the informal sector.[289] While regional employment statistics for the energy sector or coal value chain are limited, informal workforce trends are likely to persist in portions of the energy value chain, particularly in upstream activities such as coal mining, washing, transportation, and handling. The technical nature of power generation limits informality in skilled operational roles, but less skilled segments, such as upstream coal activities, are likely to rely on informal labor.

In the absence of comprehensive regional statistics, national evidence provides useful context. For example, estimates from India indicate that approximately 70% of coal mining workers are informally employed, suggesting that informality rates in lower-skilled parts of the coal value chain across the region may also be substantial.[290] The working conditions and pay for informal workers are generally lower than for formal employees, with many informal coal workers exposed to hazardous environments and provided limited occupational health and safety protections.[291]

Contract workers also make up a significant proportion of the energy sector workforce in the region. Contract workers are often given minimal termination notice, and many contractors do not receive the same benefits available to formal employees.[292] Contract workers may face greater insecurity during the energy transition, as uncertainty in fossil fuel industries can drive employers to rely more on short-term labor contracts.[293] While contractors are likely the optimal choice of employers for these types of arrangements, they are also most often associated with minimal termination notice periods, making employment more uncertain.

Restricted labor force representation

Labor unions and worker representation mechanisms are an essential part of a just transition because they help ensure that workers have a voice in decisions that affect their livelihoods. However, national legal frameworks and reported worker abuses documented in International Trade Union Confederation (ITUC) country legal profiles show that labor rights are highly restricted across this study's six focus countries.[294]

All the focus countries formally recognize FOA and CB in law, but these rights are often constrained in practice and unions frequently face extensive state oversight. In Lao PDR, workers can only form unions within a single state-controlled structure, and CB requires government authorization. The right to strike is prohibited in Lao PDR. The Philippines recognizes the right to strike in law, but strikes are often criminalized in practice. The 2025 ITUC Global Rights Index ranks the Philippines among the 10 worst countries globally for workers due to practices such as red tagging of union leaders and members, along with the use of false criminal accusations that have resulted in arrests.[295]

In most of the focus countries, informal workers and migrant workers cannot join unions, which prevents them from gaining meaningful representation or protection, and CB power in the private sector is very limited.

Employment transition

Under the International Renewable Energy Agency (IRENA) 1.5°C degree scenario, Southeast Asia is projected to lose over 6 million jobs in the fossil fuel supply chain and fossil fuel-based power generation by 2050.[296] However, the energy sector's overall employment rate, including in renewables, is still expected to rise, with the potential for green jobs in other sectors, including agriculture, fisheries, and forestry.

During the workforce transition, there is high potential for retrenchment (reduction) as employers struggle to align their existing workforce with the skills required for new, greener business models. Social security protections can help mitigate the impacts on retrenched workers and their families. A targeted review of national unemployment benefit schemes across the focus countries, based on International Social Security Association (ISSA) country profiles, shows that five of the focus countries (Indonesia, Lao PDR, the Philippines, Thailand, and Vietnam) offer formal unemployment benefits to retrenched workers.[297] However, none of these programs extend unemployment protection to informal workers, who make up the majority of the ASEAN workforce. Eligibility criteria and benefit durations also vary significantly across countries, for example:

- Indonesia's scheme provides partial wage replacement for six months (45% for the first three months and 25% for the remainder). It requires 12 months of contributions in the previous 24 months, including six consecutive months before unemployment.[298]
- The Philippines' coverage period is narrow, with two months of 50% wage replacement in a given three-year period. The eligibility criteria are also more stringent, requiring 36 months of contributions, including 12 out of the previous 18 months.[299]
- Vietnam's unemployment benefits also include vocational training and job placement services.[300]

Improved labor outcomes require investments in skills development, labor market programs, and social and economic protection measures that reach both formal and informal workers. Policies should also support fair retraining pathways, safe working conditions, and inclusive access to emerging green jobs. Together, these approaches can reduce risks for workers in declining fossil sectors while enabling them to benefit from the opportunities created by the transition.

Community impact and land rights

Coal phase-out affects entire regional economies, not just the workers directly employed by coal mines and power plants. The following points highlight the key challenges related to community impact and land rights in the region.

Economic dependency

Many communities in coal-dependent regions across ASEAN rely heavily on the coal value chain for both direct and indirect income. Local businesses, transport services, and public revenues often depend on coal activity, which limits economic diversification and reduces community resilience during transition periods. In Indonesia's East Kalimantan region, about 62% of provincial government revenue is still linked to the coal sector, which accounts for 9% of regional employment.[301]

Coal mining specifically is associated with minimal employment opportunities relative to large contributions to regional government revenue. A 2022 report on coal phase-out implications for employment in Indonesia notes that the transformation from a coal-dependent to diversified economy may introduce

social and environmental benefits, and in the long term it will be necessary to provide new sustainable employment opportunities.[302] In areas where coal dependence is entrenched, unmanaged phase-out plans can quickly translate into higher poverty, reduced local revenues, and social disruption.

Displacement risks from renewable energy expansion

Countries in the ASEAN region are planning rapid renewable energy expansion, which will put new pressures on land that communities rely on. Solar and onshore wind projects typically require larger land footprints per unit of electricity than fossil fuel plants, with a median value of 19 square meters for ground-mount solar compared with 15 square meters for coal power, including mining and excavation.[303] As renewable projects scale up, competing land use interests emerge between energy development and existing priorities such as agriculture, grazing land, and rural housing. Thailand, Vietnam, and the Philippines have taken steps to streamline permitting for renewable energy projects in an attempt to rapidly expand renewable energy generation by 2030.[304] However, these expedited approvals have resulted in projects being approved in sensitive biodiversity areas and agricultural areas without proper consultation processes.

Weak land protections and forced displacement

Protection against displacement and impoverishment is essential as renewable energy infrastructure grows. Based on a review of national constitutions in the Constitute Project database, recognition of land rights is uneven across the six focus countries.[305] In Lao PDR and Vietnam, land is owned by the state and only leased or allocated to citizens. This limits full ownership rights and increases risks of forced land grabs. Generally, expropriation laws in the six focus countries include fair compensation clauses. However, firsthand accounts and third-party reviews find that compensation is often assessed below market value and payments are regularly delayed or not delivered.[306] Across the region, civil society and media report document cases of forced evictions, intimidation, and arrests linked to government land seizures associated with infrastructure developments and, in some cases, for private sector development enforced by local authorities.[307] Cambodia continues its long-term pattern of systemic land grabs. Recent examples include the displacement of thousands of families in the Angkor area since 2022, where residents report inadequate compensation for their property and ongoing harassment.[308]

These trends have direct implications for coal phase-out and a just transition. Communities that lose land, livelihoods, or income without proper safeguards may be less likely to support energy transition strategies due to low government and institutional trust. Concerns about land rights have also been raised in Thailand, where forest-based carbon offset initiatives under the proposed Climate Change Bill have prompted fears that carbon projects could increase restrictions on community land use, leading to more forced evictions and harassment of forest-dwelling communities.[309] International reviews confirm that offset projects linked to carbon markets can contribute to evictions or the loss of customary land rights.[310]

Energy transition plans must include strategies for diversifying local economies before coal assets are retired and strengthen land rights and legal protections against forced land grabs, including fair compensation and accessible

grievance mechanisms. New renewable energy and carbon offset projects need to be designed with active community participation and benefit-sharing schemes so that the energy transition reduces, rather than worsens, harms to local communities.

Vulnerable social groups

Vulnerable social groups face distinct risks of being left behind in the transition. The following groups are particularly at risk from ASEAN's just transition efforts in terms of safeguarding equity and inclusion.

Women

Women experience unique and exacerbated challenges in the energy transition and typically have lower participation rates in formal labor markets compared to men. This results in weaker workforce protections in many developing economies.[311] Women also make up the majority of the informal workforce in most ASEAN countries, working in low-paid and vulnerable jobs without contracts, benefits, or protection.[312] These conditions put women at increased risk during economic restructuring, such as in communities dependent on the coal value chain. Women face additional barriers such as unpaid childcare responsibilities, limited access to affordable childcare, and gendered social norms that restrict their workforce opportunities. Unpaid care work has also been identified as a main barrier preventing women from entering and progressing in paid work.[313]

In addition, women are underrepresented in technical and STEM-related roles, including in the energy sector, which limits their access to higher paid opportunities in the transition.[314] The *World Energy Employment 2024* report notes that employers are facing shortages in technical and advanced digital skills and states that stronger digital training is needed to support a smooth and equitable transition.[315] This creates an opportunity for governments to introduce women-focused skilling programs that build both technical and digital competencies so women can access emerging green jobs.

Even with these opportunities, women may not automatically benefit from the transition due to green job policies and investments prioritizing sectors (still) dominated by men (construction, manufacturing, and STEM). Targeted interventions are therefore essential to ensure that women participate fully and equitably in new green economies.[316]

It is essential that women are included in energy transition planning and decision-making processes. This includes embedding gender analysis and gender-responsive metrics in labor and employment practices and policies, including employment promotion, decent working conditions, social protection, and labor migration policies.[317] Social dialogue must involve female workers, women's organizations, and gender experts so that policies in sectors affected by the energy transition reflect women's experiences and needs. Without inclusive processes, women are at risk of being left behind in the energy transition and bearing a disproportionate share of transition-related burdens.

Indigenous Peoples

Indigenous and tribal peoples in ASEAN countries have contributed the least to climate change but are among the most vulnerable to its impacts.[318] One of the major reasons is the lack of legal recognition of Indigenous Peoples in national legislation, which denies many communities their inherent rights and weakens protection of their lands and territories.[319] Only a few ASEAN countries provide legal recognition of Indigenous land rights. The Philippines offers full recognition through national law, and Indonesia and Cambodia also recognize Indigenous Peoples in legislation, but

implementation remains weak and rights are frequently disregarded.[320] These governance gaps remain a concern as critical mineral deposits are often located in or near Indigenous territories, placing additional pressure on communities as demand for transition minerals increases.[321]

Indigenous communities face multiple risks and recurring forms of harm in the context of the energy transition. These include displacement, loss of livelihoods, and limited ability to influence decision-making processes even when formal participation spaces exist.[322] The ongoing expansion of critical mineral extraction must be balanced with the rights of Indigenous Peoples, who have called for stronger protections in global energy transition planning.[323] As previously mentioned, conservation and reforestation projects linked to carbon credit programs have contributed to harassment and forced evictions of Indigenous and forest-dwelling communities in parts of Southeast Asia, including Thailand, where forest reclaim policies have led to the eviction of Karen communities in Kaeng Krachan National Park and reports of home burnings and violence documented by the Asia Centre.[324] Indigenous communities also face legal and financial barriers when challenging land seizures.[325]

In Cambodia, Indigenous Peoples continue to experience land grabs and forest evictions driven by economic land concessions, which have exposed communities to intimidation, violence, and rapid loss of customary land.[326]

In 2023, the ILO conducted the Global Dialogue on Just Transition with Indigenous and Tribal Peoples, where the discussion highlighted key commitments that can support Indigenous rights. These included promoting the ratification of Convention No. 169 (the binding international treaty focused on the rights of Indigenous Peoples), building institutional mechanisms to guarantee dialogue, consultation, and participation from Indigenous Peoples, and expanding access to culturally relevant vocational training.[327] Global best practices highlight that joint governance arrangements that support transparent, shared decision-making and the co-creation of sustainable jobs, along with targeted training and mentorship programs, can have positive outcomes for Indigenous Peoples and support the energy transition by building Indigenous workforce capacity. These approaches also uphold Indigenous definitions of sustainable work, which balance seasonal land-based practices and recognize existing disparities.[328] As the energy transition evolves, protecting Indigenous rights will require stronger protections, including clear consent processes, safeguards for sacred sites, and defined no-go zones in high-risk and culturally sensitive areas.[329]

Energy access and affordability

The transition to low-carbon energy poses both opportunities and risks for affordability. According to the IEA, energy access in developing Asia reached 98% in 2024, compared with 68.8% in 2020.[330] Since 2024, 8 million people have gained access to electricity, leaving 90 million people in the region still without access. There has been significant progress in closing the rural electricity access gap in recent years. The IEA also notes these countries have seen significant progress since the COVID-19 pandemic, for example, Bangladesh achieved universal access in 2022.[331]

Table 12 Access to electricity in developing Asia (2022)

Country	Urban	Rural	Population without access (millions)	Country	Urban	Rural	Population without access (millions)
Bangladesh	>99%	>99%	<1	Myanmar	98%	48%	20
Brunei	>99%	99%	<1	Philippines	>99%	98%	<1
Cambodia	>99%	95%	<1	Singapore	>99%	>99%	<1
Indonesia	>99%	>99%	<1	Thailand	>99%	>99%	<1
Lao PDR	>99%	96%	<1	Vietnam	>99%	>99%	<1
Malaysia	>99%	>99%	<1				

Source: IEA (2023), Electricity Access Database.

Despite significant progress in closing the gap between rural and urban electricity access, millions of people in ASEAN remain without electricity. The IEA analysis suggests that progress has stagnated since the COVID-19 pandemic.[332] ASEAN countries, and particularly rural areas, are prone to more frequent power disruptions due to inadequate grid infrastructure and weak system resilience.[333] ASEAN countries also face increasing risks from climate-related hazards, including more intense storms, floods, and landslides that can damage or destroy transmission infrastructure and other energy assets.[334]

Access to energy also plays a critical role in health and socio-economic development.[335] For example, without household electricity, families are more likely to rely on burning solid fuels for heating and cooking, which is linked to worsened indoor air quality and increased rates of asthma, cancers, and cardiovascular conditions, collectively contributing to millions of premature deaths each year, especially in Asia.[336]

The lack of reliable household electricity also limits socio-economic opportunities, acting as a barrier to income-generating activities, such as home-based businesses that depend on equipment like sewing machines, refrigeration, or digital devices.[337]

Electricity tariff volatility

In addition to physical connectivity disruptions, energy costs can also be a primary barrier to energy access, particularly affecting low-income households.[338] Rapid expansion of renewable energy capacity while simultaneously decommissioning fossil fuel plants can lead to increased tariffs in the short term due to high upfront capital requirements for new generation and grid upgrades.[339] Analysis shows that while renewable energy lowers wholesale electricity costs, the overall impact on tariffs depends on whether countries invest early in grid reinforcement and flexibility, as poor planning can force rising integration costs to outweigh savings.

Subsidy reliance

Globally, electricity subsidies are an essential tool for protecting low-income households from rising energy costs and ensuring stable access. ASEAN countries pursue these aims through a range of electricity subsidy programs that differ widely in design and durability.

- **Cambodia:** Supports low-income households through its Rural Electrification Fund and Power to the Poor program. These national programs provide grants that help poor households pay for home wiring and connection costs.[340]
- **Indonesia:** National electricity subsidies are primarily allocated to households with low energy capacity connections, as well as small businesses and industries. According to the 2025 State Budget, household customers received IDR 56.50 trillion of the IDR 87.72 trillion budget, supporting 35.2 million low-income households. This is an ongoing program, with expectations of sharp increases in electricity subsidies in 2026 related to shifts in exchange rates and crude oil prices.[341]
- **Lao PDR:** A USD 8–10 million national electricity subsidy for households consuming up to 300 kWh per month ran from September to December 2025.[342]
- **Philippines:** Provides electricity subsidies to low-income households with low monthly electricity usage under its national Lifeline Rate for marginalized households detailed in Republic Act 11552. The 2021 program extension is expected to continue the subsidies for 50 years.[343]
- **Thailand:** State welfare cardholders receive financial support that covers electricity use up to 50 kWh per month. The government had temporarily extended subsidies to households consuming up to 300 kWh per month to help mitigate cost-of-living expenses and relieve economic challenges, however, this program ended in April 2025.[344]
- **Vietnam:** A policy is in place providing state-funded subsidies to low-income households equal to the cost of 30 kWh per month. Electric subsidies to low-income households have been provided since 2011.[345]

The different approaches adopted by ASEAN countries to provide economic relief for electricity consumption, and the design and stability of those systems, will influence how well each country is prepared to absorb the potential short-term costs of the energy transition while protecting low-income households.

These points highlight that closing the remaining electricity access gaps will require more than expanding power generation. Countries must also strengthen grid resilience, manage the potential short-term cost impacts of the energy transition, and ensure that households and businesses remain supported as electricity demand continues to rise. All these measures must be considered for progress to continue on universal electricity access and affordability. Otherwise, progress could slow or even reverse as transition pressures increase.

EDITOR'S NOTE: POLICY STATUS UPDATE

Addendum to: Phasing Out Coal, Phasing In Justice: Roadmap for Financing Responsible Regional Coal Phaseout in Asia (Fair Finance Asia & I-JET, July 2026)

Covers the period: 30 November 2025 (the report's stated data cut-off) through 30 June 2026

Compiled: 7 July 2026, using web searches of primary and news sources current as of that date.

This note tracks the status of some status of key policies that happened beyond the data cut-off timeline of November 30, 2025. These updates however do not have any impact on the recommendation and phase-out approach mentioned in the report

1. Cambodia

Policy / program item	Status as of 30 Nov 2025 (per report)	Status as of 30 June 2026	What changed
Related financial/ ESG disclosure regime (adjacent to the taxonomy discussion; not itself named in the report)	Not covered in report	Cambodia adopted a Prakas (ministerial directive) on ESG Disclosure; mandatory ESG disclosure for Cambodia Securities Exchange (CSX)-listed companies takes effect **10 May 2026**[i]	New development since the report's cut-off — a concrete disclosure obligation now sits alongside the still-draft taxonomy

2. Indonesia

Policy / program item	Status as of 30 Nov 2025 (per report)	Status as of 30 June 2026	What changed
Indonesia Taxonomy for Sustainable Finance (TKBI) Version 3 (p.36)	"Currently under development and is expected in early 2026"	**Released.** OJK launched TKBI Version 3 (Batch 1) at the Annual Financial Services Industry Meeting on **5 February 2026**; Batch 2 (Manufacturing sector) followed in March 2026. OJK describes this as completing taxonomy coverage of all NDC-related sectors[ii]	The report's "expected early 2026" forecast materialized on schedule. Captive coal plants remain classified as eligible "transition" activities based on available summaries — the report's core greenwashing concern appears unresolved

i Slaughter and May, "ESG in APAC 2025 — Cambodia" — https://www.slaughterandmay.com/services/practices/environmental-social-and-governance/esg-in-apac-2025/cambodia/
ii OJK, "Indonesia Taxonomy for Sustainable Finance (TKBI) Version 3" — https://ojk.go.id/en/Publikasi/Roadmap-dan-Pedoman/Sektor-Jasa-Keuangan/Keuangan-Berkelanjutan/Pages/Indonesia-Taxonomy-for-Sustainable-Finance-TKBI-Version-3.aspx

3. The Philippines

Policy / program item	Status as of 30 Nov 2025 (per report)	Status as of 30 June 2026	What changed
No updated NDC "as of the study period" (p.42)	2021 NDC (72.29% conditional / 2.71% unconditional) still in force	**In progress toward submission.** The Climate Change Commission held a stakeholder consultation on the draft "NDC 2026" on 26 March 2026, ahead of submission to the UNFCCC. As of that date it had not yet been submitted[iii]	Notable shift from "no updated NDC" to an active, near-final drafting process — but not yet formally submitted as of our search
2020 coal moratorium halting DOE endorsement of new greenfield coal, with limited exceptions (p.42)	Moratorium in place with narrow exceptions	DOE Secretary Sharon Garin reportedly signed an advisory (Oct 2025) formally defining "exceptional circumstances" exemptions permitting new on-grid coal during a declared/ imminent power crisis or severe local shortage, plus explicit carve-outs for own-use, off-grid, and industrial-park coal capacity[iv]	This clarification/loosening of the moratorium's exception criteria occurred right around the report's cut-off and may not be reflected in the report's characterization of the moratorium as narrowly drawn
(Context not in report, but materially relevant)	—	A **national energy emergency** was effectively triggered from March 2026 by the closure of the Strait of Hormuz during the Iran conflict, sharply raising coal and LNG import prices and reviving debate over the country's fossil-fuel dependence. President Marcos signed RA 12316 (25 March 2026) allowing temporary suspension of fuel excise taxes[vvi]	A significant real-world development for the Philippines' energy-transition narrative since the report's cut-off, even though it is not a "policy" the report itself named

iii Philippine News Agency, "NDC is PH 'whole-of-gov't' approach to climate action" — https://www.pna.gov.ph/articles/1272210
iv Balitang Amianan, "Philippines Energy Outlook 2026" — https://balitang-amianan.info/philippines-energy-outlook-2026-reliability-resilience-in-focus/
v Wikipedia, "2026 Philippine energy crisis" — https://en.wikipedia.org/wiki/2026_Philippine_energy_crisis
vi Rappler, "IN NUMBERS: Philippine sources of electricity affected by Middle East crisis" — https://www.rappler.com/newsbreak/data-documents/philippines-electricity-numbers-middle-east-crisis-march-2026/

4. Thailand

Policy / program item	Status as of 30 Nov 2025 (per report)	Status as of 30 June 2026	What changed
Climate Change Bill — "expected to be submitted by late 2025 and enacted in 2026" (p.46)	Under consultation	**Cabinet approved the draft in principle on 2 December 2025.** It is now being reviewed by the Council of State before going to Parliament. Multiple legal trackers now report enforcement is anticipated in **early 2027**, not 2026[vii][viii]	The report's "enacted 2026" expectation has slipped by roughly a year, per current legal-industry tracking — one of the more material updates in this note
Draft PDP2024–2037 — "does not include any new coal projects" (pp.46–47)	Still a draft at time of report	**Shelves:** Reporting from February–June 2026 indicates PDP2024 was never finalized and has been replaced by a new planning exercise, "PDP 2026," a 25-year plan (2026–2050) targeting at least 60% clean electricity by 2050 (up from 51% in the shelved PDP2024 draft), expected to be finalized around August–September 2026[ix][x]	A genuine status change: the plan the report cites as Thailand's current draft has been superseded by a different, longer-horizon plan not yet finalized

vii Norton Rose Fulbright, "Thailand's Climate Change Bill: Latest Updates" — https://www.nortonrosefulbright.com/en/knowledge/publications/f6d4c951/thailand-s-climate-change-bill-latest-updates
viiiReccessary, "Thailand approves landmark Climate Change Bill with carbon tax and ETS" — https://www.reccessary.com/en/news/thailand-climate-change-bill
ix Climate Policy Database, "Power Development Plan (PDP)" — https://climatepolicydatabase.org/policies/power-development-plan-pdp
x Maverick Consulting Group, "Thailand Net Zero 2050 ambition" — https://www.mcg-asia.com/featured-insights/thailand-net-zero-2050-pdp-2026-energy-transition

5. Malaysia

Policy / program item	Status as of 30 Nov 2025 (per report)	Status as of 30 June 2026	What changed
Climate Change Bill (RUUPIN) — "to be tabled in early 2026" (p.55)	Drafting stage, under Attorney General's Chambers review	**Still not tabled as of 30 June 2026.** A January 2026 ministerial target of "by March 2026" was not met; as of May 2026, the government was targeting tabling in **July 2026**, alongside the National Climate Change Authority Bill (RUUIklim)[xixii]	The "early 2026" tabling has slipped at least twice; as of the report's own 30 June 2026 window, the bill remains pending
Carbon tax mechanism "planned for 2026" (Table 3, p.52)	Under consideration	PM Anwar Ibrahim announced a carbon tax on iron, steel, and energy sectors in the Budget 2026 speech, but the Natural Resources Minister confirmed in **April 2026 that implementation is "on hold"** due to Middle East geopolitical tensions and cost-of-living concerns. A National Carbon Market Policy (NCMP) was approved 1 April 2026 to lay groundwork (registry, MRV) ahead of eventual carbon-pricing instruments[xiii]	A concrete delay: the carbon tax originally "planned for 2026" is now on hold, with foundational infrastructure being built in the meantime

xi The Star, "Environs Ministry to table first National Climate Change Bill in Parliament by March" — https://www.thestar.com.my/news/nation/2026/01/15/environs-ministry-to-table-first-national-climate-change-bill-in-parliament-by-march-says-arthur
xii The Edge Malaysia, "Cover Story: National Carbon Market Policy" — https://theedgemalaysia.com/node/803600
xiii The Edge Malaysia, "Cover Story: National Carbon Market Policy" — https://theedgemalaysia.com/node/803600

6. Energy Transition Mechanism (ETM) — Philippines & Indonesia

Policy / program item	Status as of 30 Nov 2025 (per report)	Status as of 30 June 2026	What changed
ADB "exploring the use of transition credits" for a 200 MW Mindanao coal plant (p.27)	Exploratory stage, MAS–ADB partnership announced Dec 2023	PSALM (the state asset manager) has targeted retirement/ repurposing around 2026 at an estimated cost of approximately $476 million, with ADB as transaction adviser; no confirmed news of financial close or actual retirement was found[xiv]	Still in structuring/negotiation, not completed — **recommend verifying directly with PSALM/ ADB**, since this is a live, moving transaction
(Adjacent, not itself named in report) Philippines–Singapore transition-credit cooperation	An implementation agreement was "slated for signing by February 2026" per an October 2025 report	The Philippines and Singapore signed a bilateral **Implementation Agreement on carbon credits under Article 6 of the Paris Agreement on 30 April 2026** (roughly two months later than originally targeted), during ASEAN Climate Week in Manila. This creates a legal framework for future carbon-credit transactions but is not itself the SLTEC/ Mindanao transition-credit deal[xvxvi]	New, dateable milestone since the report's cut-off; worth distinguishing from an actual coal-plant retirement, which has not occurred
Indonesia's ETM pilot — Cirebon-1 (660 MW, West Java), per Table 2's site-level column		**Cancelled:** In December 2025, the Government of Indonesia and state utility PLN announced they were withdrawing from the Cirebon-1 early retirement plan entirely. The government has said it will pursue a "phase-down" approach instead (running the plant to the end of its technical/ contractual life, roughly 2035, rather than an ETM-financed early exit), and has indicated ETM funding may be redirected to a yet-to-be-nominated older plant — alongside a stated pivot toward exploring early retirement of **captive** (off-grid, industrial) coal plants instead[xviixviiixix]	Indonesian civil-society groups (IESR, WALHI) mentioned that the reporting below say the cancellation undermines the credibility of both Indonesia's JETP/ETM commitments specifically and the ETM model as a coal-retirement tool more broadly

xiv Manila Standard, "PSALM begins Mindanao coal plant's retirement, repurposing" — https://manilastandard.net/?p=314476714
xv Philippine News Agency, "PH, Singapore ink landmark carbon credits deal" — https://www.pna.gov.ph/articles/1274101
xvi Singapore Ministry of Trade and Industry, Implementation Agreement announcement — https://www.mti.gov.sg/newsroom/singapore-signs-the-philippines--first-implementation-agreement-on-carbon-credits-collaboration-under-article-6-of-the-paris-agreement/
xvii Mongabay, "Indonesia backs away from coal exit test case amid financial and political pushback" — https://news.mongabay.com/2026/01/indonesia-backs-away-from-coal-exit-test-case-amid-financial-and-political-pushback/
xviii IEEFA, "Building credibility in Indonesia's energy transition: Insights from the ETM and JETP Indonesia" — https://ieefa.org/resources/building-credibility-indonesias-energy-transition-insights-etm-and-jetp-indonesia
xix Global Energy Monitor, "Cirebon power station" — https://www.gem.wiki/Cirebon_power_station

FAIR FINANCE ASIA

SUPPORTED BY

Sweden
Sverige