SETC
Southeast Asia Energy Transition Collaborative Network

IESR
Institute for Essential Services Reform

Indonesia's Just Energy Transition — Lessons from Policy Implementation, Stakeholder Engagement and Social Equity

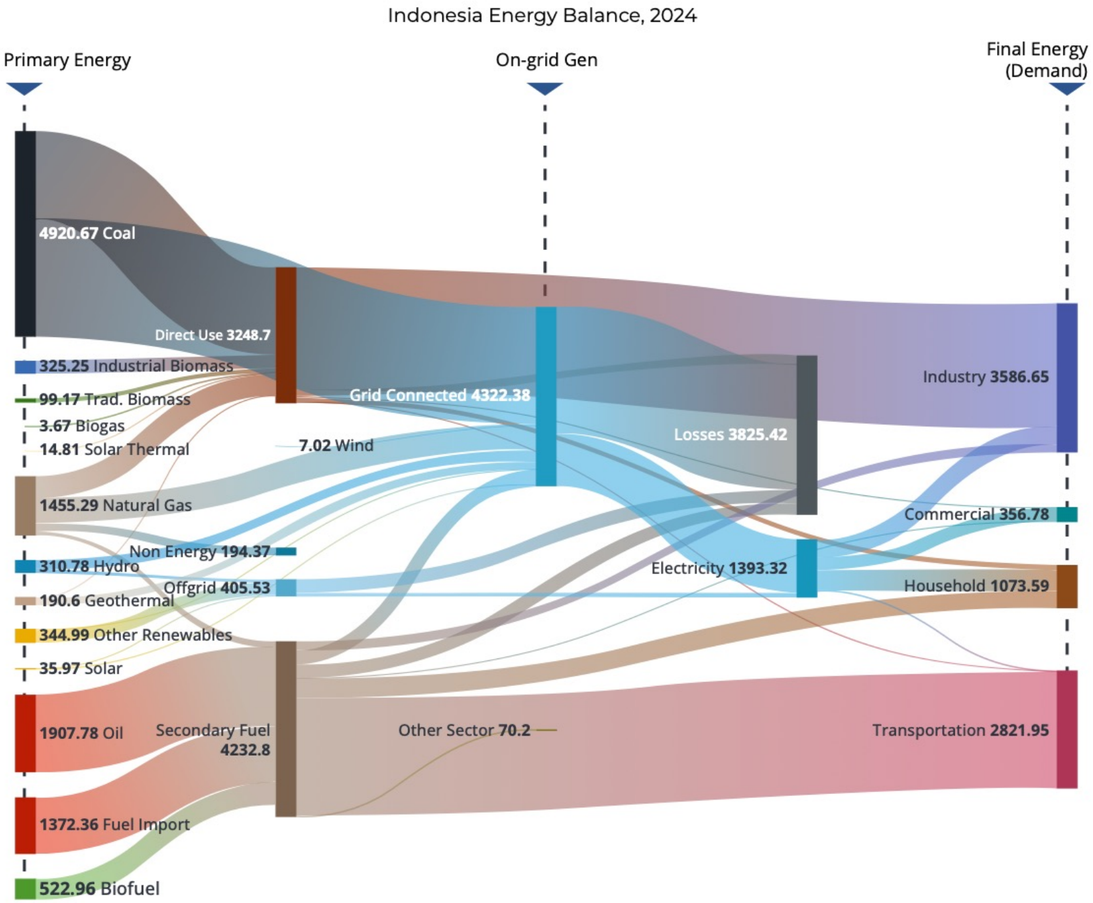
SDSN Thailand Public Forum, 4 November 2026





Indonesia Energy Transition Outlook 2026

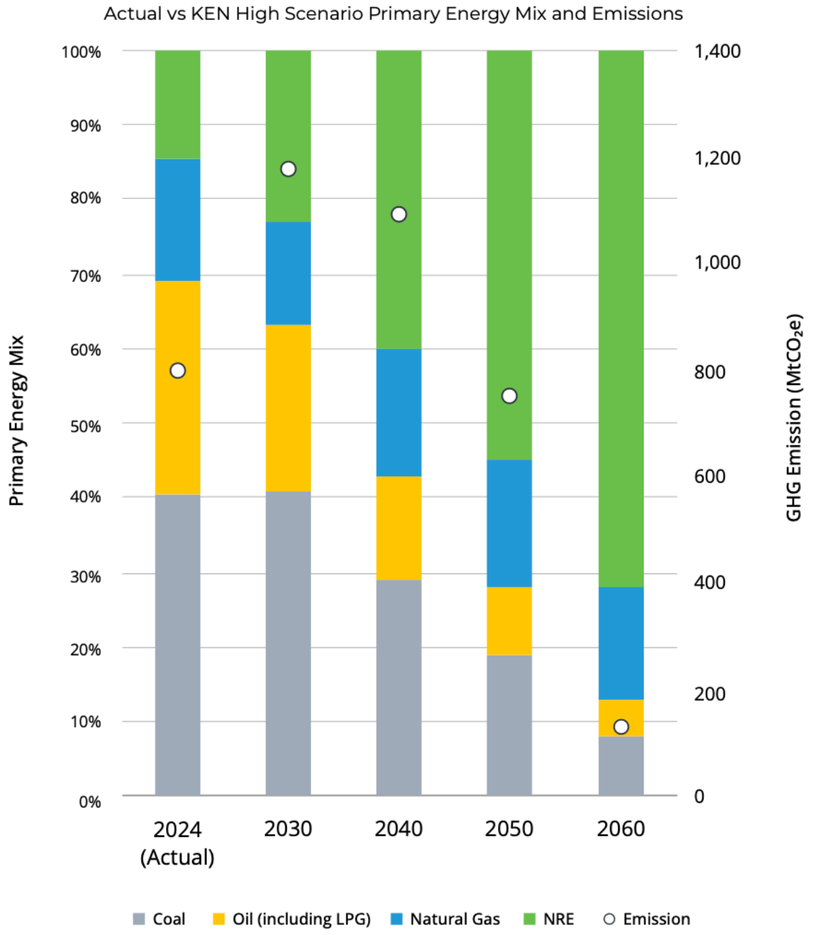
Indonesia’s fossil-fueled energy system demands a decisive and radical departure from coal and oil to reach its climate and energy independence goals



Source: Adapted from HEESI (MEMR 2025), unit in PJ

- As in 2024, Indonesia’s total primary energy is still **dominated by coal (40.4%) and oil products (39.3%).**
- This heavy reliance on coal and oil defines Indonesia’s high-emission structure and reveals the **deep carbon lock-in embedded in its economy.** Transitioning away from this fossil dominance is not merely a matter of replacing fuels but **requires a structural shift toward a low-carbon, efficient, and resilient energy system**.
- **Fuel imports, accounting for 21% of primary energy,** further complicate Indonesia’s pursuit of energy independence. Especially following the Hormuz Crisis, **energy security has been a key agenda not only in Indonesia but in the Southeast Asia region.**

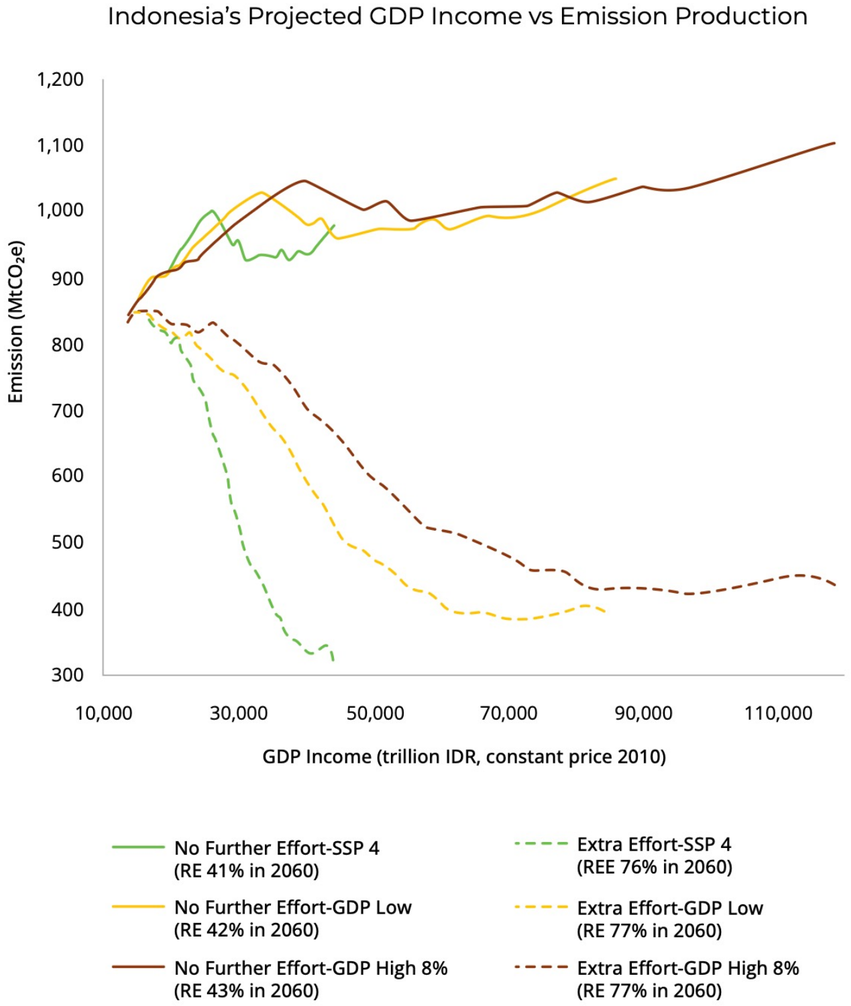
Balancing Indonesia's economic ambitions with decarbonization and energy resilience a persistent policy challenge



Source: IESR analysis from HEESI 2024 and KEN 2025

- The **National Medium-Term Development Plan (RPJMN) 2025-2029 targets 8% annual economic growth by 2029**, with industrial downstreaming as one of the main priorities.
- The National Energy Policy (KEN) 2025 models two energy demand scenarios based on different growth assumptions, with only the **high-growth scenario achieving the 8% economic growth target by 2029. However, the high-growth scenario leads to higher emissions due to increased energy demand, jeopardizing alignment with the 1.5°C target**
- IESR's analysis identifies approximately **333 GW of economically viable solar, wind, and micro- to mini-hydro capacity across more than 530 locations**, while the Indonesian Ministry of Energy and Mineral Resources (MEMR) estimates the country's total RE technical potential to exceed 3 TW.
- KEN identifies diversifying energy sources and maximizing domestic resources as paths to energy resilience. Renewable energy must play a central role, considering Indonesia's abundant resources, but actual progress remains slow. **Renewables contributed only 14.65% of the national primary energy mix in 2024, prompting the new KEN to postpone the 23% RE mix target from 2025 (as stated in the previous KEN) to 2030.**
- Although the high-growth scenario increases renewable deployment, it remains insufficient for deep emission reductions. **Fossil fuels are projected to remain dominant through 2060, perpetuating high subsidies and weakening energy independence.**

Expanding the renewable share in the primary energy mix is key to decoupling emissions from economic growth



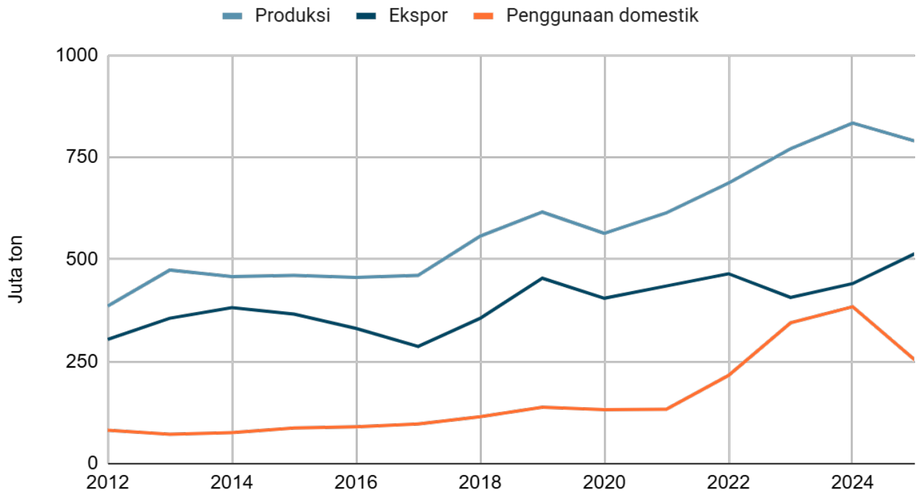
- The 2026 energy security budget still directs most spending to subsidies and compensation, while only **9% goes to renewable development.**
- Economic growth does not inherently require higher emissions, **but achieving "green growth" demands a structural policy realignment.**
- **IESR's modeling clearly shows how increasing the renewable energy mix affects emissions and growth**.
  - In the "No Further Effort" scenario, renewables reach only 41-43% of the primary energy mix by 2060, causing emissions to keep rising alongsideGDP and reach 1,104 MtCO2e under the 8% economic growth assumption.
  - In contrast, the "Extra Effort" scenario, with 77% renewables in the mix, achieves comparable GDP growth while bending emissions down to about 436 MtCO2e by 2060.

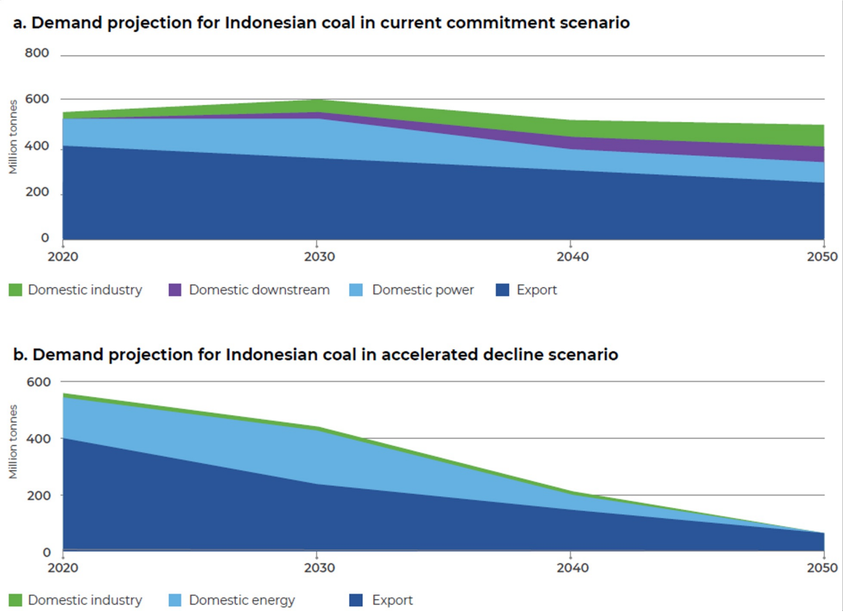


Addressing Justice and Inclusion in the Transition

Indonesia’s coal demand remains high, with potential decline starting 2030

- 6.6% of Indonesia's GDP
- 17.4% of export value
- 5% of state revenue
- 0.2% of employment
- Production has increased more than tenfold since 2000
- 50%-80% sold to export markets
- 20%-40% consumed domestically
- The majority of domestic consumption is for power generation





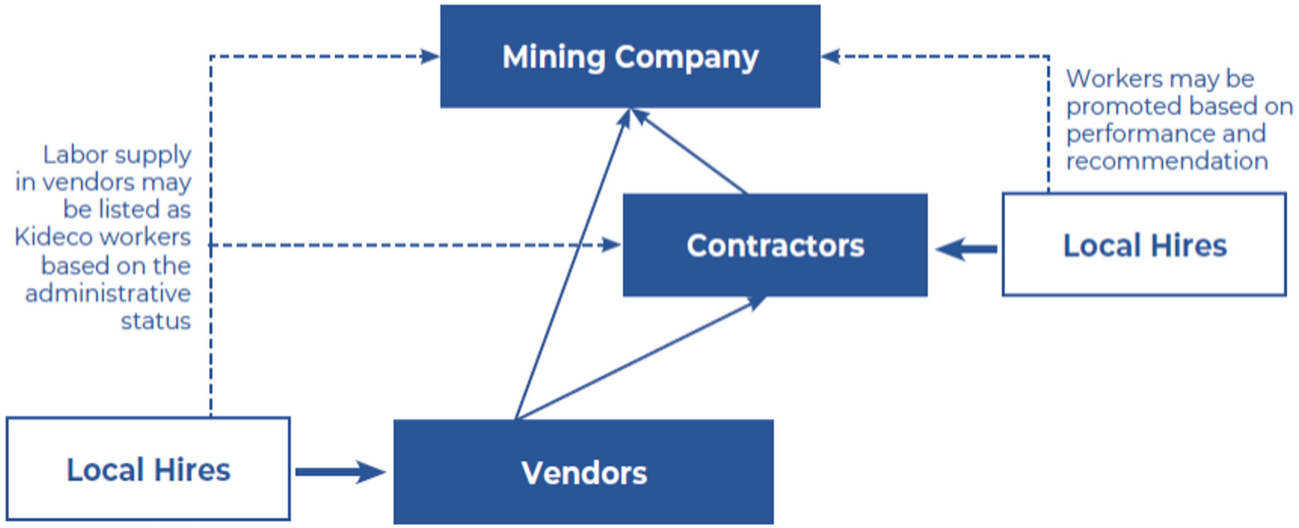
Several regulations affecting domestic coal use have undergone dynamic changes:

- **LTS-LCCR**: In 2050, coal production remains above 500 million tons, with coal still the second-largest power source (38%) (LCCP).
- **JETP**: Power sector emissions peak at 250 $MtCO_2e$ (on-grid) with a 44% renewable energy share by 2030.
- **Coal Downstreaming**: Expected to consume 33 million tons of coal by 2050.
- **Presidential Regulation No. 112/2022**: Halts the construction of new on-grid coal power plants outside the 2021–2030 electricity supply plan (RUPTL) and limits captive coal power plants; preparation of a roadmap for early coal retirement.
- **MEMR Regulation No. 10/2025:** Roadmap for power sector transition to net-zero by 2060, including early coal retirement

Coal contributes to employment and job creation, especially in coal-producing regions

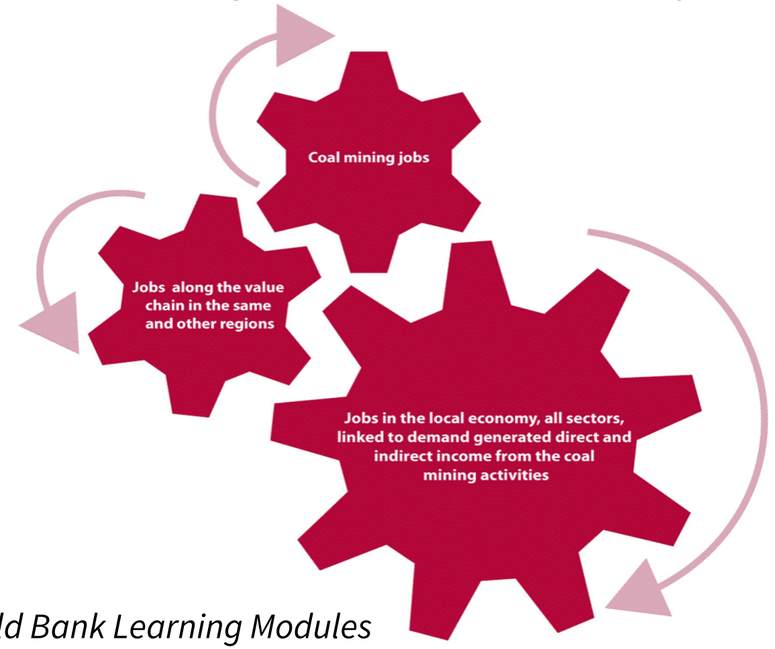
- In many Southeast Asian countries, coal is not just a source of energy—it is also a source of income, jobs, and stability. In Indonesia, coal sector contributes to direct employment in companies, indirectly such as subcontractors and vendors, and those induced by coal company activities such as stalls, laundries, and housing.
- **About 80-90% of employment comes from mining services companies, including contractors, consultants, suppliers, equipment rentals, surveyors, construction, transportation, etc.**
- Coal mining creates jobs for 7-15% of the formal workforce in Paser, East Kalimantan—one of the biggest coal-producing regions in Indonesia.

Employment in Paser, Indonesia



Source: IESR, 2023

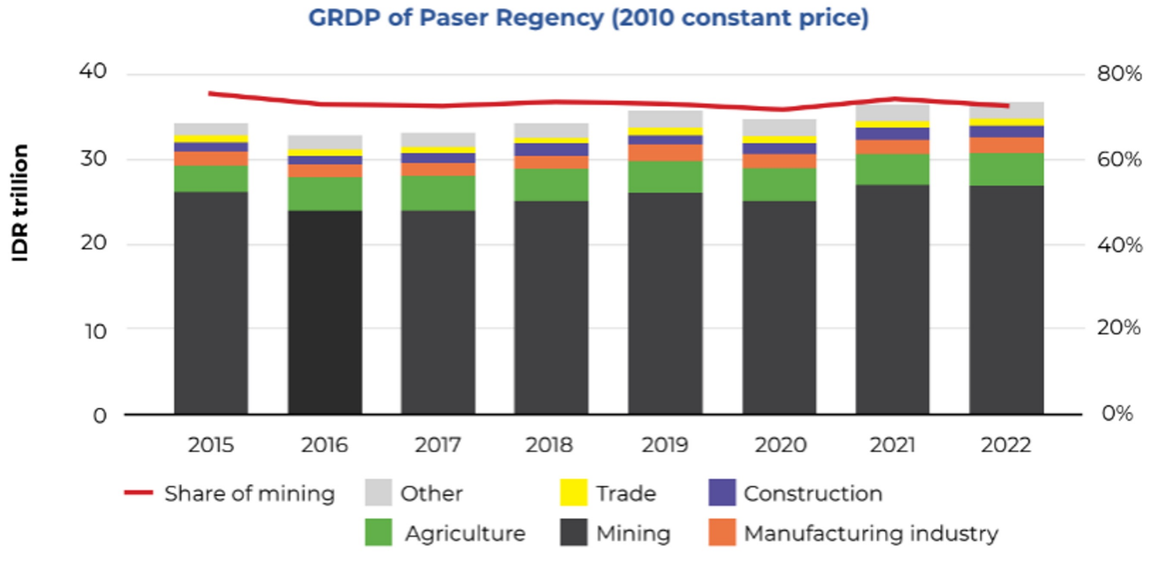
Coal Mining Relation to Local Economy

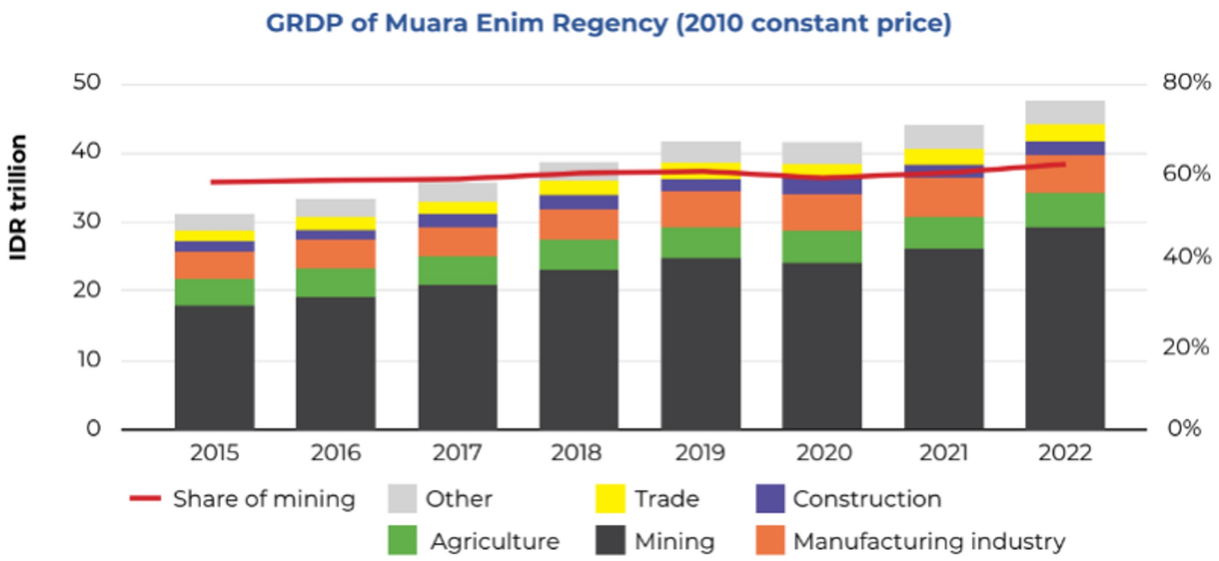


Source: World Bank Learning Modules

Mining industry dominates the economy in coal-producing regions in Indonesia

Case Studies: Paser, East Kalimantan and Muara Enim, South Sumatera (IESR, 2023)





Source: IESR, 2023

- **GRDP share of mining industry**: around **50% in Muara Enim and 70% in Paser**
- **GRDP growth**: **0.6–7.4% over the past decade**
- Mining sector direct effect on income and employment is lower than services, trade, and agriculture

Local government revenue is also highly dependent on the mining industry

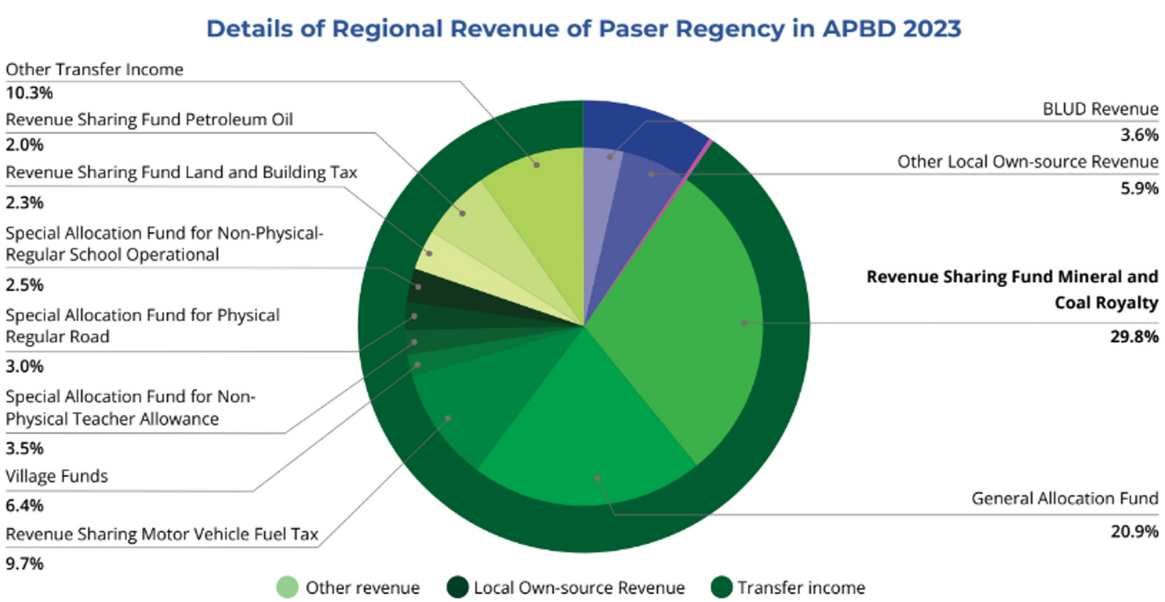


Figure 3a. Revenue source of government budget in Paser and Muara Enim Regency.

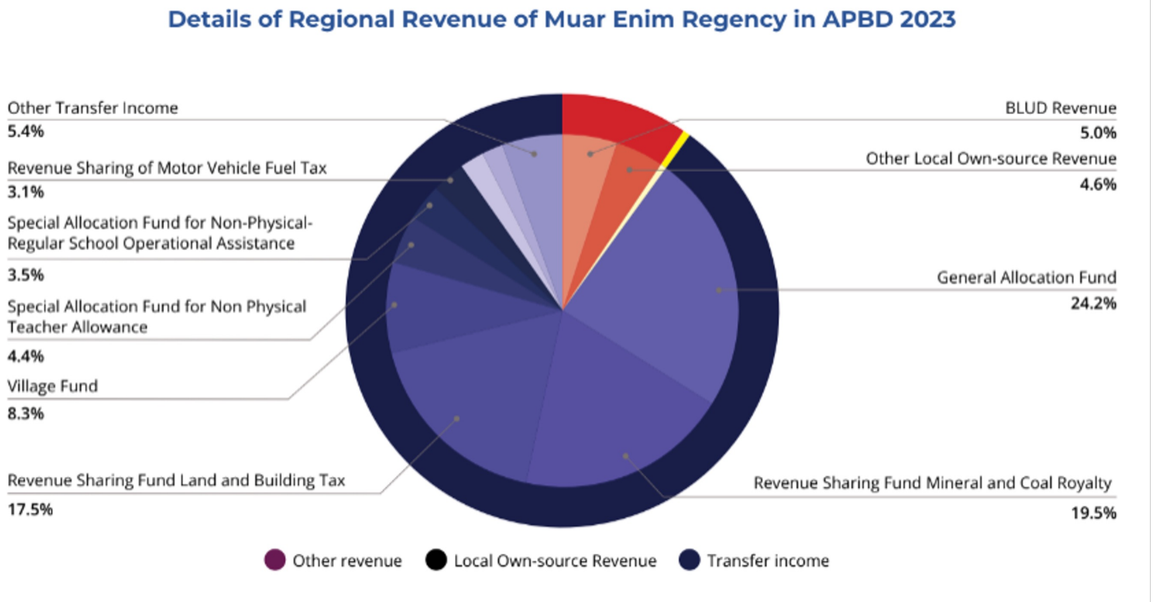
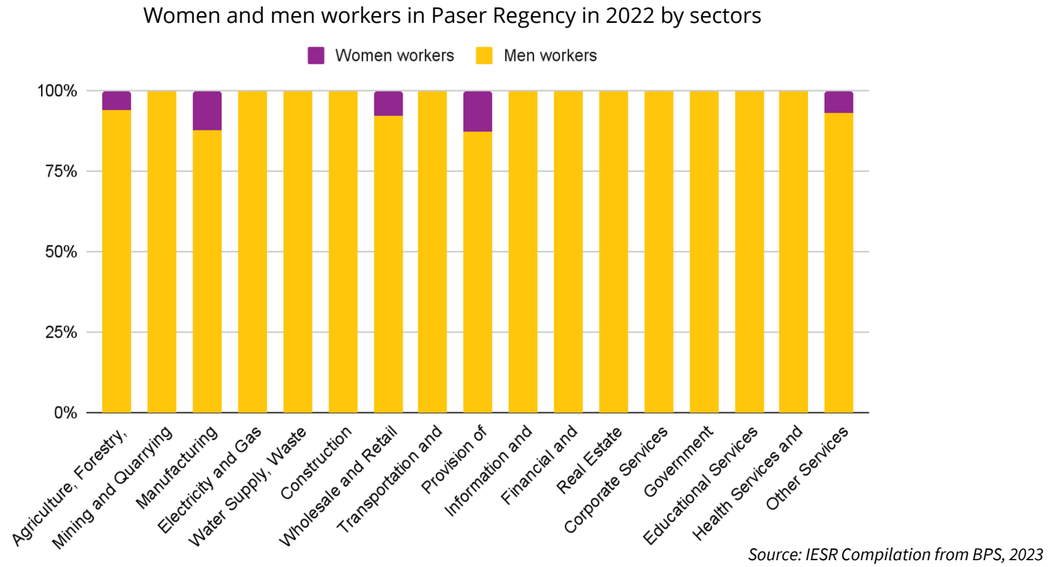


Figure 3b. Revenue source of government budget in Paser and Muara Enim Regency.

Source: IESR, 2023

- **Revenue sharing (DBH) from coal royalties and taxes forms up to 20% in Muara Enim and 27% in Paser.**
- Most local government expenditure is operational; thus, declining DBH heavily affects operations.

Women workers and their roles in coal-producing regions: study case in Paser Regency, East Kalimantan



Source: IESR Compilation from BPS, 2023

In Kideco, a big coal mining company in Paser, **15% of the total employees are women.** Until 2022, Kideco employed 722 people, consisting of 613 men and 109 women. According to the company evaluation, in 2022, 80 employees were promoted; 69 of them were men, and 11 of them were women. **There were no women in the Board of Directors** per 31 December 2022.

Coal industry opens new prospects for women, notably in the informal sector. **Based on our observation, many women involved in informal business** like food stalls and laundromat. There is gender segregation in the labor market.

The **environmental and health burdens of mining disproportionately fall on women**, as they are responsible for water, food, and family health. FGDs with *PKK* women in Samuranggau Village highlighted high rates of respiratory infections (ISPA/ARI) among children and the elderly, as well as difficulties in accessing clean water. The study also identified Bawe Paser, a local women's organization that serves as a community platform.





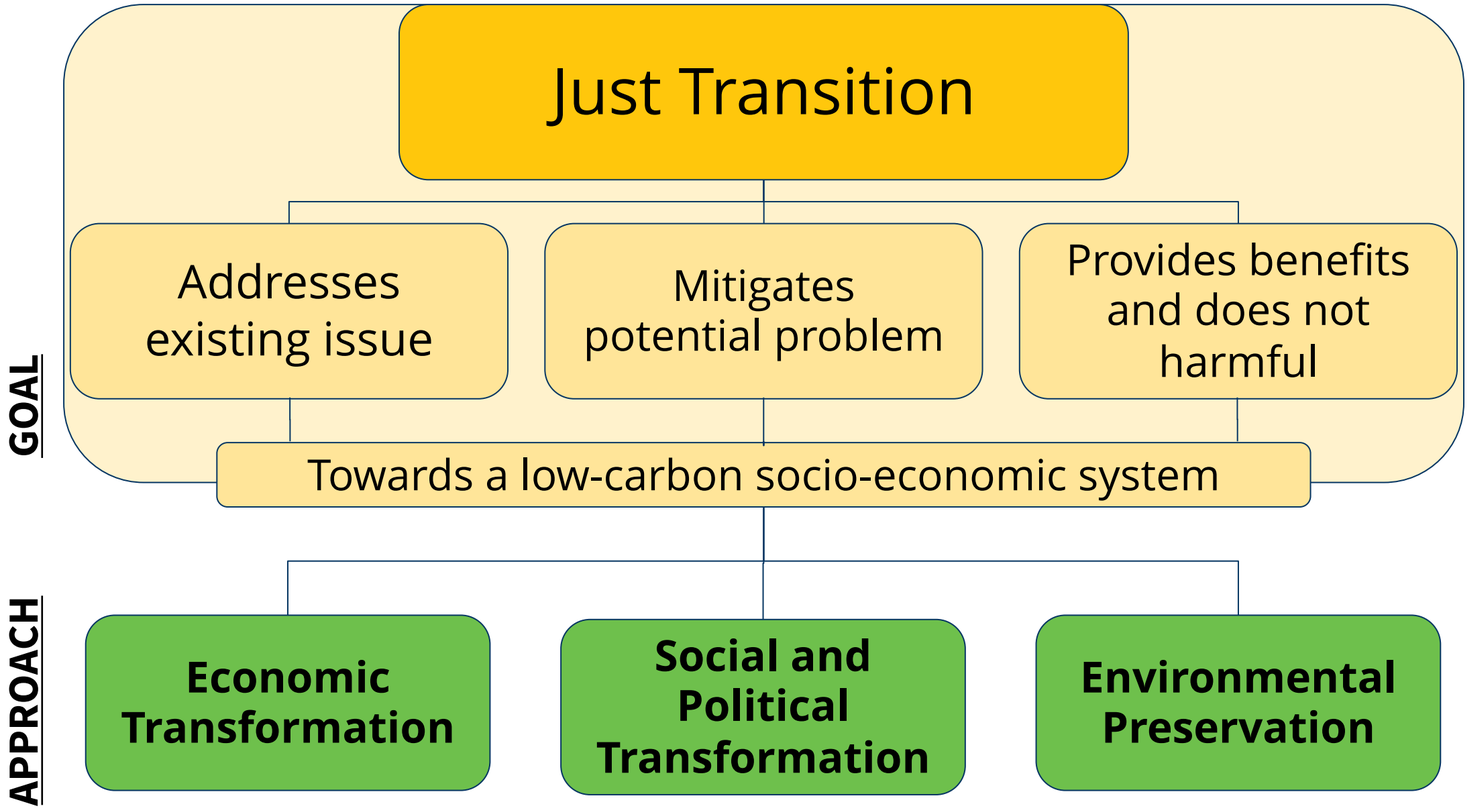
Source: IESR, 2023

Looking at the dependency, moving away from coal needs to incorporate justice

A just transition is the process of shifting from a carbon-intensive socio-economic system towards a low-carbon socio-economic system that:
a) addresses existing economic, social, energy, and environmental issues,
b) mitigates potential problems that may arise as a result of the transition,
c) provides benefits and does not significantly harm people,
through a multisectoral and multi-level approach.

IESR, 2024

Just Transition Definition



IESR built this definition by combining justice dimensions with impacted areas and sectors

In coal-producing regions, a just energy transition begins with economic diversification

Economic transformation

Economic diversification and synergy

- Through the development of competitive and potential local economic sectors.
- Ensuring local economic added value through cross-sectoral synergy

Enablers of economic transformation

Human capital

Building a resilient workforce

Technology

Increasing technology adaptation to the local level, and linking it to SMEs/MSMEs

Financing and governance

Improve governance at the local level and plan programs that have a direct impact on regional income



From transition commitments to practical implementation in the region

Despite strong political commitment, advancing regulatory clarity, financing support, and human capital development is essential to achieving tangible progress in Indonesia's energy transition

Transition Readiness Framework (TRF) Rating		Rating	
Dimensions	**Variables**	**2024**	**2025**
Political Commitment and Governance	Political Commitment	Low	Low
	Regulatory Framework	Low	Low
	Institutional & Governance	Low	Low
Investment and Finance	Investment for Energy Transition	Medium	Medium
	Finance for RE	Low	Low
Public Participation and Community Acceptance	Human Resource	Medium	Medium
	Public Participation	Medium	Medium
	Media Narratives	N/A	Medium
Technology Advancement	Ecosystem Support	Medium	Medium
	Domestic Supply Chain	Low	Medium
	Cost Competitiveness	High	Medium

Source: IESR analysis

- Overall, incoherent policies, limited financing support, and insufficient human capital capacity remain key factors behind the stagnant progress of Indonesia's energy transition.
- **Beyond regulation and funding, human capital development must advance in parallel with technological progress.** Building a skilled workforce will not only strengthen public awareness and participation in the transition but also foster innovation in clean energy technologies.

Southeast Asia Energy Transition Collaborative Network (SETC)

SETC is a collaborative network of think-tanks and CSOs across Southeast Asia with the ultimate goal of helping the region cement its leadership in energy transition and force interdependence in the region to reduce emissions.



Identity:
Collaborative, diverse and dedicated, enabler, catalyser;
with long term goal to achieve just and inclusive energy transition in Southeast Asia.

SETC Scope of Work:
1. Policy and Research
2. **Stakeholder Engagement**
3. Narrative (Media)

ASEAN 2045: Our Shared Future



ENVISIONING a developed ASEAN as the **epicentre of growth in the Indo-Pacific region**;

RESOLVE that ASEAN Member States shall implement, through ASEAN Organs and Bodies, the ASEAN 2045: Our Shared Future in a timely and effective manner, and **ensure seamless coordination across pillars and sectors of the identified cross-pillar and cross-sectoral strategic measures**;

Challenges and Opportunities:

- Energy security
- Climate change, transition to a green economy
- Industrial and manufacturing hub and centre of excellence, as well as becoming an integral part of the global supply chain
- Sustainable socio-economic development that is people-centred and people-oriented

ASEAN's approach to energy transition and economic development has largely focused on sector-specific priorities, with opportunities to deepen cooperation among ASEAN Member States (AMS) and strengthen alignment in implementation (IESR, 2023). **Building on progress towards technical objectives, a more integrated regional approach could enhance the energy transition's contribution to broader economic development.**

Southeast Asia Energy Transformation Initiative (SEA-ETI)

1

Accelerating Clean Energy Deployment & Integration

- Establish an ASEAN Clean Energy Fund **to unlock financing to meet $130 billion annually by 2030 in climate financing**, supporting the expansion of renewable energy and the phase-out of coal.
- Fast-track the ASEAN Power Grid, **reducing electricity costs by 30%** through cross-border clean energy trade.
- Scale up **investments in solar, wind, green hydrogen, and battery storage** to enhance energy security and create new economic opportunities.

2

Building ASEAN as a Clean Energy Manufacturing & Trade Hub

- Launch an **ASEAN Clean Energy Industrial Strategy** to attract over $100 billion in investments for solar PV, electric vehicles, batteries, wind turbines, and green hydrogen manufacturing.
- Establish regional value chains for critical minerals processing, **ensuring ASEAN controls key resources for global clean tech industries.**
- Strengthen ASEAN+3 partnerships (Japan, Korea, China) **to facilitate advanced technology transfers and industrial collaboration**.

3

Strengthening Green Investment & Financing Mechanisms

- Expand the ASEAN Green Taxonomy and Sustainable Finance Frameworks **to attract global institutional investors and green bonds**.
- Develop an ASEAN Green Investment Platform **to develop and curate** clean energy projects and infrastructure.
- Mobilize **public-private partnerships (PPPs)** to accelerate the deployment of low- carbon industries and energy-efficient solutions.

4

Enhancing Policy Coordination & Workforce Development

- Align **national energy policies** with ASEAN's regional transition goals to create a **seamless, efficient, and investor-friendly clean energy market**.
- Launch an **ASEAN Clean Energy Workforce Initiative**, creating over 3 million high-skilled manufacturing, engineering, and digital innovation jobs.
- Establish ASEAN Clean Energy **R&D Centres,** driving technological innovation and positioning ASEAN as a global leader in clean energy research.

From the Philippines to Singapore, sustaining the ASEAN energy transition agenda throughout successive Chairships is key



1. **Build a Bankable Clean Energy Pipeline**: Develop investment-ready projects spanning renewable energy, energy storage, system flexibility, and cross-border transmission. Scaling this pipeline requires transparent regulations, stronger project preparation, and coordinated regional investment planning.

2. **Establish Dedicated Regional Financing Mechanisms**: Accelerate the creation of an ASEAN-managed financing pool alongside the APGF. Such a mechanism can de-risk strategic projects, mobilise public and private capital, and provide sustained support for clean energy and regional connectivity investments.

3. **Anchor Energy Security in Indigenous Renewables**: Strengthen regional energy security by expanding access to domestic and regional renewable energy resources, modernising grids, and enhancing system resilience, thereby reducing exposure to fossil fuel price volatility and supply disruptions.

4. **Align Connectivity with Fossil Fuel Transition**: Regional power interconnections should enable large-scale renewable energy integration and support ASEAN's long-term pathway to reduce dependence on fossil fuels while meeting growing energy demand securely and affordably.



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