Accelerating Sustainable Transformation: The Innovation Regions for a Just Energy Transition (IKI JET)

ASIA CLEAN ENERGY FORUM 2024
4 June 2024 | ADB Headquarters, Manila

Mr. Suchart Charles Klaikaew, Senior Advisor
Innovation Regions for a Just Energy Transition (IKI JET), GIZ
About the Project

Innovation Regions for a Just Energy Transition (IKI JET) and the JET CR Platform

Donors
Co-financed by the International Climate Initiative (IKI) of the German Federal Ministry for Economic Affairs and Climate Action (BMWK) and jointly financed by the European Union Commission – DG INTPA, Global Challenges Multiannual Indicative Programme 2021-27 for the JET CR Platform

Countries
Global approach to Thailand, Viet Nam, Mongolia, South Africa, Colombia, and Chile. Project country component in Indonesia.

Target
Support key stakeholders in coal regions to plan for and implement regional just energy transition pathways away from coal and toward a low-carbon energy system.

Project Implementing Partner
A member of the consortium of five partners implementing IKI JET, with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH as consortium coordinator and the Climate Action Network (CAN), the International Institute for Sustainable Development (IISD), the International Labour Organization (ILO), and the Wuppertal Institut für Klima, Umwelt, Energie gGmbH implementing the Project

Project Duration
December 2022 – July 2026 (4 years)
Target countries and regions

Participants in the Interregional Platform

- Chile (Coronel, Mejillones)
- Colombia (La Guajira, El Cesar)
- Indonesia (East Kalimantan, South Sumatra)
- Mongolia (Nalaikh district)
- South Africa (Mpumalanga)
- Thailand (Lampang)
- Viet Nam (Quang Ninh)

Global

Close cooperation with initiatives like:
The project in a nutshell

IKI JET supports countries in developing plans for a just transition away from coal to renewable energy and other sustainable economic activities with a focus on the regional level, including renewable energy investment, existing coal assets, and socio-economic diversification.

Project components

I. Just Energy Transition in Coal Regions - Inter-regional Platform (JET-CR Platform)
   - International Network of Innovation Regions
   - International Policy Dialogue
   - International Knowledge Hub

II. Indonesia Component
   - JET planning in two coal regions

III. Colombia Component (tbc)
   - Focus to be determined
**IKI JET Strategic outcome**

<table>
<thead>
<tr>
<th>International Network of coal regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In-country technical assistance and capacity building for participating JET regions</td>
</tr>
<tr>
<td>• Peer-to-peer knowledge exchange and experience sharing on RE development</td>
</tr>
<tr>
<td>• Training programs and learning forum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>International Policy Dialogue on JET</th>
</tr>
</thead>
<tbody>
<tr>
<td>• International dialogue on policies to support JET in coal regions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge Hub on JET</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Online portal &amp; knowledge platform on JET in coal regions,</td>
</tr>
<tr>
<td>• New knowledge on JET in coal regions</td>
</tr>
</tbody>
</table>
Focus on halting new coal plant construction and promoting renewable energy while balancing the early closure of existing coal plants for a significant shift away from coal.

Main findings - Energy transition

**Overall development trends are clear**: Coal use for electricity generation may still increase in the coming 5 years, but will most likely plateau and decline after 2030.

Energy from **renewables is already cheaper today**, but not in Indonesia (yet).

Strong transition barriers are **national policy framework conditions** and existing fossil energy **subsidies**.

Main findings - Economic transition

The coal sector contributes strongly to state revenues today. Replacing these revenues with alternatives will be very important.

However, research findings underpin that coal mining generates little value-added per output for the regions as compared to RE and other economic sectors.

Several scenarios estimate the shift to a greener economy will create additional economic output compared to BAU.

Main findings - Labour transition

Shifting on a green economy development path will lead to a decline of employment in the coal sector, but overall, to a **net gain in employment**.

**Labour market policies and skills development** will be crucial for coal regions. A broader support for education on Green job will be beneficial for the transition.

Measures should not only support coal workers but all citizen in the region.
IKI JET supports Indonesia's sustainable development by engaging stakeholders, training government staff, influencing national plans, providing technical assistance for renewable energy, and promoting economic diversification in coal regions for South Sumatra and East Kalimantan.

**Challenge**

In East Kalimantan and South Sumatra, there is a lack of knowledge on the coal industry transition, highlighting the need for detailed regional data on domestic coal demand and renewable energy planning.

Disaggregated data on the national level is more often available than on the regional/local level, and crucial information held by the government is often inaccessible.

Further scenario development for each sector, including mining and RE, is necessary to align with the latest target amendments and ensure policy implementation.

**Ongoing project**

- **Technical assistance** for long-term development planning in South Sumatra Province (Decentralize RE Plan)
- Preliminary concepts for Regional Consultation Forum on JET in East Kalimantan and South Sumatra are in progress
- Establish business models to scale up biomethane utilization in East Kalimantan and South Sumatra, update local energy planning, and provide training in both regions.
- Evaluating sustainable food supply options for the IKN community from the buffer zone in East Kalimantan for local economic diversification

**Outcomes**

IKI JET has completed stakeholder analyses for both the national level and South Sumatra in Indonesia regarding their roles in promoting renewable energy.

71 government staff underwent training on green economic transition analysis in Indonesia, a collaborative effort by Bappenas, IKI JET, and New York University.

The 2024 draft of Indonesia's national development plan integrates IKI JET's advice from May 2023, emphasizing a just energy transition and backing fossil fuel regions while advancing renewable energy.
IKI JET supports EGAT in developing the Regional Just Transition Master Plan for the Lampang Coal Regions and will assist with Mae Moh’s Land Repurposing plan, which includes assessing renewable energy potential, enhancing governance approaches, regulations, policies, and energy planning for Mae Moh Green Roadmap.

**Challenge**

- EGAT plans to cut coal generation by 50% in 2026, affecting a 2,455 MW capacity, fostering renewable energy development.
- Regulatory bottlenecks and policy uncertainties from the delayed Power Development Plan are stalling the current phase-out plan, impeding renewable energy progress.
- EGAT needs financial support for technical consultancy to transition from coal, close the Mae Moh coal mine, and implement new projects effectively.

**Solution / Recommendations**

- Facilitating stakeholder mapping, impact assessment, social dialogue, and engagement for the Mae Moh Project by EGAT at the regional level is imperative to foster broad adoption of renewable electricity.
- Promote renewable energy in Lampang for economic cluster development, utilizing producer proximity, attracting full value-chain growth, and leveraging infrastructure and skilled workforce.

**Outcomes / Ongoing project**

- Provide EGAT in supporting in the development of the Mae Moh Green Area roadmap for Lampang district with Thailand’s RE target.
- Support EGAT with the Lampang Coal Regions’ Just Transition Master Plan, Mae Moh’s Land Repurposing plan, and the Green Job Assessment Program for Renewable development through training and strategic guidance.
- The latest draft of the Thailand Power Development Plan 2024 incorporates elements of IKI JET’s advice to assist the government in assessing renewable diversification options in Lampang.

Source: EGAT 2024
Innovation Regions for a Just Energy Transition

Mongolia
• Support the development of a regional JET strategy for Nalaikh as well as concrete steps to substitute additional demand for heat and power by RE.
• Support a plan for the ecological regeneration of the former mining site, which could be part of the JET strategy.
• Economic diversification and recovery and Green and decent jobs

Vietnam
• Supported the coal phase out roadmap with JETP in Vietnam
• Support Vinacomin in their pre-feasibility study on biomass co-firing at the thermal power plant by identifying in-country measures, planning assistance, and monitoring progress.

Thailand
• Mae Moh coal phase out plan
• Support EGAT in aligning the Mae Moh Green Area roadmap with Thailand's RE target.
• Support the formulation of the Regional Just Transition Master Plan for Lampang Coal Regions and Mae Moh’s Land Repurposing plan, along with the Green Job Assessment Program for renewable development.

Indonesia
• IKI JET has completed stakeholder analyses for both the national level and South Sumatra in Indonesia.
• Creating an enabling environment involves offering incentives and streamlining administrative processes to attract new investments in other economic sectors.

Key takeaways

The Comprehensive Investment and Just Policy Plan both national and regional levels are important for achieving Renewable target.

Focus on halting new coal plants, boosting renewables, and balancing the early retirement of coal plants for a significant shift away from coal.

Enhancing social and human capital is key for tripling renewable energy capacity and securing a skilled workforce for green industries.

Select renewable energy projects strategically for local impact, regional progress, social mitigation, and economic diversification.
Contact the global team!

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). For general questions please write to: iki-jet@giz.de
For CoP or country specific questions please write to:

Belgium
Martin Keim
Martin.keim@giz.de

Chile
Tomás Jil
tomas.jil@giz.de

Colombia
Eduardo José Sánchez-Sierra
eduardo.sanchezsierra@giz.de

Indonesia
Nafisa Iskandar
nafisa.iskandar@giz.de

Mongolia
Bujinlkham Nyamaa
nyamaa.bujinlkham@giz.de

South Africa
Nomfundo Jele
nomfundo.jele@giz.de

Thailand
Suchart Charles Klaikaew
suchart.klaikaew@giz.de

Vietnam
Hang Tran Vu Diem
hang.tranvu@giz.de
Acknowledgement

The project “Innovations Regions for a Just Energy Transition” is jointly funded by the International Climate Initiative (IKI) of the German Federal Ministry for Economic Affairs and Climate Action (BMWK) and the European Commission’s Directorate-General for International Partnerships (DG INTPA) for the Just Energy Transition in Coal Regions (JET – CR) Interregional Platform.