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Coal vs Climate: Indonesia's Energy Policy Contradicts Its Climate Goals

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Veröffentlichungsversion / Published Version
Arbeitspapier / working paper

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Empfohlene Zitierung / Suggested Citation:
Fünfgeld, A. (2020). *Coal vs Climate: Indonesia's Energy Policy Contradicts Its Climate Goals.* (GIGA Focus Asien, 2). Hamburg: GIGA German Institute of Global and Area Studies - Leibniz-Institut für Globale und Regionale Studien, Institut für Asien-Studien. https://nbn-resolving.org/urn:nbn:de:0168-ssoar-67640-6

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GIGA Focus | ASIA

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Coal vs Climate – Indonesia's Energy Policy Contradicts Its Climate Goals

GIGA Focus | Asia | Number 2 | May 2020 | ISSN 1862-359X

Being the fourth-largest country in the world and hosting the third-largest share of global rainforest stocks, Indonesia plays an essential role in international climate protection. While the government has implemented forest and peatland protection measures, national energy planning heavily relies on fossil fuels, and is in clear conflict with the country's climate goals.

- Indonesia is one of the largest coal producers and exporters worldwide. The current expansion of coal combustion for domestic electricity supply is likely to lead to long-term dependency thereon in upcoming decades.
- Indonesia's rush for coal, commencing early in the new century, is a result of the country's decentralisation reforms and the persistency of structures of corruption and politico-business entanglements.
- The 2015 plans for extensive expansion of the coal fleet brings together the government's infrastructure plans and the interests of the domestic coal industry, which lost part of its market due to a drop in international demand.
- The government's energy planning contradicts its goals to reduce greenhouse gas emissions and expand the share of renewable energies. A more sustainable long-term strategy is still missing, and no serious plans for an energy transition exist so far.
- Especially Indonesia's continued reliance on coal, further to the tremendous environmental and social impacts open-strip mining and the construction of new power plants bring about, have led to intensifying criticism both internationally and domestically. This pressure has led to some minor policy corrections, but without changing the general energy pathway of the country.

Policy Implications

European policymakers should actively support initiatives working towards a more just and environmentally sustainable energy system. Once Germany is convincingly implementing measures to decarbonise its own energy system, meet its climate goals, and thoroughly implement its coal phase-out, it could figure as a best practice example for emerging economies like Indonesia. Until then, European banks and enterprises should divest from any coal-related business and shift towards supporting the development of renewable energies.

Indonesia: Climate Leader and Energy Laggard?

At the United Nations Climate Change Conference COP25 in December 2019 in Madrid, Indonesia once again demonstrated its eagerness to be perceived as a leading climate protector. Similar to past conferences, it hosted a well-located and appealing national pavilion. Part of its high-profile country representation was the invitation of internationally renowned speakers like Jeffrey Sachs and Al Gore. In his speech on 11 December 2019, Gore called Indonesia "a microcosm of the crisis we see in the world as a whole" and "an example of a country that is very hard trying to change policies and to move in the right direction." However, he also stressed the policy change still required for a decarbonisation of the Indonesian energy sector – a topic the Indonesian government usually tries to fudge, as it fundamentally calls into question their climate commitment.

Gore warned that "the idea of expanding the burning of coal is really troubling." In fact, with this statement, he pointed at a very basic but enduring inconsistency in Indonesia's climate approach. While over the last few years the Indonesian government has emphasised on many occasions its willingness to take a leading role not only in international fora in general but especially in the field of climate protection, its energy planning stands in stark contrast to these goals. It has been framing climate politics primarily as an issue of forests, peatlands, and lately also oceans. While Indonesia has undertaken some remarkable related steps, they will not be enough. Greenhouse gas (GHG) emissions from the energy sector are on the rise in this fast-growing country, and estimated even to overtake those from the land-use sector soon. Energy demand is growing rapidly in the world's fourth-largest country demographically due to rising living standards, alongside continued economic and population growth.

The government's plans to expand the use of coal for electricity generation may initially appear to make sense for a short-term, affordable energy supply and given a continuing need for poverty alleviation and electrification. However, open-pit mining already leads to large-scale environmental destruction, land conflicts, and the increasing impoverishment of already marginalised, rural sections of the population. In the long term, it is likely to lead to an environmentally and socio-economically costly fossil fuel lock-in. Why, then, is the Indonesian government still relying on coal for the largest share of electricity generation? How far does this choice really serve the development objectives foreseen by the current administration? Furthermore, are there any prospects for an energy transition?

Indonesia in International Climate Politics

Since its democratisation reforms after the Asian financial crisis and the fall of Suharto's New Order Regime in 1997/1998, Indonesia's economy has been growing constantly. It has gained international recognition as one of the largest democracies in the world, an important regional power, and a defender of multilateralism. One of the key policy fields in which the country has been seeking international repute since Susilo Bambang Yudhoyono's presidency (2004–2014) is climate protection. This is not surprising given that Indonesia is a densely populated archipelagic state with high biodiversity and home to a large share of the world's tropical rainforests.

It is highly vulnerable in terms of climate-change impacts. Rising sea levels, reduced rainfall patterns, higher drought risks, and the increase of extreme weather events affect individual well-being as well as economic development. Around 60 per cent of Indonesia's population, more than 160 million people, live in coastal areas, where 80 per cent of the country's industries are also located. Already today, rising sea levels affect many parts of the country – including the capital, Jakarta. This megacity is particularly vulnerable to climate-change impacts as, additionally, it is perpetually sinking due to groundwater extraction and the fact that it is built on swampland. It is estimated that 40 per cent of the city is already below sea level. Accordingly, in 2019 the Indonesian government decided to construct a new capital city on the island of Borneo.

Apart from the immediate, climate-change-related threats the country is already facing, engagement in international climate politics has also been a strategic decision for the Indonesian government. International climate diplomacy matches well with the country's profile as a multilateralist and mediator, and provides an opportunity to underline its global- and regional-power aspirations (Resosudarmo, Ardiansyah, and Napitupulu 2013; Jotzo 2012). Moreover, rainforest conservation and emissions-trading programmes like "Reducing Emissions from Deforestation and Forest Degradation" (REDD) promise international funding.

In 2009, when it was one of the first developing countries to announce its willingness to cut emissions, Indonesia did indeed undertake some important steps for climate protection. The government has since enacted measures for controlling deforestation and protecting peatlands, tried to tackle government red tape hindering implementation, and announced several moratoria prohibiting land conversion. However many of these climate-protection measures have not yet led to the desired results, and the current administration appears to be less ambitious to push for legal enforcement or to announce even more far-reaching policies.

While the Indonesian government never seems to get tired of affirming the country's major contribution to international climate protection, progress reports classify its emission-reduction targets as "highly insufficient" (Climate Action Tracker) or "insufficient" (Universal Ecological Fund). In its Nationally Determined Contribution, the country's commitment to meeting the Paris Agreement, Indonesia has pledged to cut its emissions growth by at least 29 per cent over business-as-usual levels by 2030, and 41 per cent under the condition of international support. These goals were reaffirmed by the Indonesian government in early 2020. This has led to the criticism of civil society organisations (CSOs) and research groups that as one of the world's biggest GHG emitters, Indonesia should be more ambitious. Problems of controlling the heavy forest and peatland fires that occur regularly every couple of years as a result of particular weather events, as well as patronage politics mostly related to palm oil plantations, persist. As the haze regularly spreads to neighbouring countries, this also results in international quarrels – especially with Malaysia and Singapore. However, also in times without this haze crisis, growing GHG emissions continue to be an acute problem, and several studies (for example by the World Resource Institute) estimate that Indonesia is very likely to miss out on its emission-reduction pledges. Concerning the planned reductions, the government envisages continuing to focus on the forestry and land sectors. At the same time, emissions from the energy sector continue to rapidly increase.

The Indonesian Energy Sector

Indonesia's population and economy have been steadily growing over the last few decades, and living standards have been enhanced. This has led to rising energy demands that require political decisions determining which energy sources should be expanded during the upcoming years. Thus, different from industrialised countries like Germany that demonstrate more or less stable or even slightly falling rates of energy consumption, emerging ones like Indonesia are confronted with a double challenge. They need to expand their energy production while at the same time reducing GHG emissions. Accordingly, the energy decisions that such countries are taking today are also fundamentally determining their future emission pathways. In parallel, the expansion of energy production offers them the opportunity to make decisions for the long term – namely, towards a sustainable energy supply for decades to come.

In Indonesia, already today the second-largest share of the country's GHG emissions stem from the energy sector. Due to rising demands and sustained dependency on fossil fuels, this sector is estimated to grow rapidly and possibly overtake emissions from land use and forestry eventually. Fossil fuels account for around 88 per cent of Indonesia's electricity supply. Especially coal plays an important role herein, accounting for approximately 61 per cent of the country's electricity production in 2018 and envisaged to still make up 54 per cent thereof in 2025. While the government aims to reduce the share of coal relative to other energy sources, it has still been growing in absolute numbers according to the International Energy Agency (IEA). In order to reach emission targets, the government would need to initiate an extensive transformation of the energy sector. It announced the goal of raising the share of new and renewable energies in primary energy supply to 23 per cent by 2025. However, given the unfavourable conditions for renewable energy development, it appears unlikely that this target will be met.

Hurdles include a frequent change of regulations, low power-purchase prices, the monopoly of the state-owned electricity company Perusahaan Listrik Negara (PLN), and comparably favourable conditions for coal, which all imply that currently renewables cannot compete with fossil fuels. It is only in the transportation sector where Indonesia appears to be moving towards an increased share of renewables. In late 2019, the government launched its so-called B30 initiative, which foresees the use of biodiesel containing 30 per cent palm-based fuel, the highest mandatory share therein worldwide. This policy is closely related to Indonesia's standing as the world's biggest producer and exporter of palm oil. It will make the country less dependent on oil imports, and at the same time expands the domestic palm oil market. However, this cannot count as a climate-friendly move as palm oil monocultures have led to massive deforestation. The government also recently decided to push the development and usage of electric vehicles. However without a decarbonisation of an electricity sector largely dominated by coal, this will not have the desired effects in terms of emissions reduction either. In order to fulfil the latter sustainably, it will be necessary to initiate and implement a phase-out of coal combustion.

The Rise and Tenacity of Coal in Indonesia

The rapid rise of coal mining in Indonesia over the last two decades is a result of the twenty-first century commodities boom paired with widespread and institutionalised practices of predatory politics, being reinforced by decentralisation reforms. While former president Suharto tried to attract large-scale resource extraction already in the 1960s by implementing industry-friendly mining and foreign investment laws, first explorations of Indonesian coal reserves only began in the early 1980s, with the take-off phase not commencing before late in that decade. It was only after Suharto's fall in 1998 and with subsequent democratisation and decentralisation reforms that Indonesia would witness a massive expansion of the production and export of coal, becoming one of the largest producers and exporters hereof worldwide within a matter of years. Providing 31 per cent of global supply, Indonesia was the largest coal exporter worldwide (closely followed by Australia) in 2019 according to the IEA.

In the early years of the new century, coal extraction in Indonesia by both international and domestic companies grew at enormous speed – mainly targeting Kalimantan and Sumatra, the country's major producing regions. Above all, rising demand in neighbouring Asian countries and the associated favourable market prices significantly boosted Indonesian coal-mining activities back then. However, the rapid and largely uncontrolled expansion of such activities cannot only be explained by favourable market conditions and increased demand of neighbouring countries like China, India, and South Korea. It was also facilitated by domestic political-economic structures of corruption and self-enrichment.

The oligarchic structure that characterises Indonesia's political economy has its roots in Suharto's authoritarian New Order regime. Back then, several politico-bureaucratic families managed to establish themselves in powerful positions. State officials were able to gain privileged access to concessions and funds, and established a wide system of patronage. During the 1980s they became increasingly engaged in business activities, creating vast family-business conglomerates. When in 1997/1998 the Asian financial crisis led to the end of the New Order regime, democratisation and far-reaching decentralisation reforms were implemented. Yet, the very same family-business conglomerates were able to reorganise and reinvent themselves by forming new alliances and entering democratic institutions as parliamentarians and the like. Additionally, wealthy businesspeople entered the political scene, often based on their ability to pay their way into political parties (Hadiz and Robison 2013; Aspinall 2013).

These reforms did not seriously undermine the long-established fusion of political and economic power in Indonesia. Conversely, the transfer of competencies to the subnational level as part of Indonesia's "big bang" decentralisation reforms provided new rent-seeking opportunities in fact. Among other competencies, the issuing of coal-mining concessions was passed to the district and municipality levels. So-called little kings (*raja-raja kecil*) – politicians and businesspeople who would become district heads and mayors – emerged at the local level, and were suddenly able to control the gateways to valuable resources. The issuing process for these concessions was often based on dubious practices, many times involving corruption, patronage, and nepotism. For example it has been reported that local-election candidates would receive financial support for their campaigns, to be later recip-

rocated in the form of mining concessions. In response to the extreme coal rush, and the destructive practices of open-pit mining that went along with it, the 2014 revision of the regional autonomy law shifted competencies back to the provincial and national levels. However, by then vast parts of Kalimantan and Sumatra were already covered by coal-mining concessions (Fünfgeld 2016).

The operation of mines has been often accompanied with and maintained by illegal practices and non-compliance with regulations. Environmental-impact assessments, as well as community information and compensation requests, have in most cases not been engaged with thoroughly. A lack of controls and the prevalence of bribery gave rise to a somewhat law-free environment in which only the symbolic implementation of prescribed measures took place. Affected communities as well as CSOs opposing these circumstances would be intimidated by thugs and corrupt security officials. The open-pit mining that has turned major extraction zones into moon-like landscapes continues to have severe socio-economic and environmental impacts, ranging from erosions and flooding, pollution and deforestation, to a severe reduction of harvests and income as well as the loss of livelihoods (Fünfgeld 2016). Additionally, most companies are not fulfilling their post-mining reclamation responsibilities, and instead simply abandon the open-mining pits. It is estimated that between 2014 and 2018 this led to the death of more than 140 people, most of them children who drowned in these abandoned mining pits.

Reduced demand internationally and especially from China led to falling prices and export rates for Indonesian coal from 2014, reaching its lowest ebb in 2015 and 2016. The Indonesian government responded to these developments with several policy instruments leading to increased domestic coal demand. The "35 Gigawatt Programme" launched in 2015 by President Joko Widodo (2014–present), also known as Jokowi, foresaw the installation of an additional 20 gigawatts of electricity from coal together with the construction of 291 new power plants by 2019. This focus on the home front has also been underlined by a domestic-market obligation and a related price cap favouring power producers like PLN. Meanwhile, energy planning was later levelled downwards as the construction of capacity for 35 additional gigawatts was deemed to be far over-calculated in terms of energy demand, and impossible to realise within only five years. Nonetheless, many new coal power plants have been constructed or are underway. These infrastructure investments, many of them funded by Japanese and Chinese banks and investors, indicate a lock-in to fossil fuel-based power generation for decades to come. Moreover, similar to coal mining, the construction of new power plants has spurred land conflicts on the local level and is leading to severe environmental and socio-economic impacts (Fünfgeld 2019b).

The construction of new power plants not only suits the local coal and energy industries, but also matches well with Jokowi's political agenda. Among his main political goals is the construction of new infrastructure. The expansion especially of electricity production is perceived important for ensuring high investment rates and economic growth of 5 to 7 per cent annually. Most CSOs agree with the need to electrify especially the so-called outer islands in the eastern part of the country, where large parts of the population are still without access or rely on diesel generators that produce electricity for only a few hours per day. However these CSOs call into question whether electrification is being extended to those most in need of it,

pointing to the fact that the vast bulk of coal-fired power plants are set to be erected on islands with already high electrification levels, especially Java (Fünfgeld 2019b).

Jokowi has been generally regarded a reformist strongly committed to good governance and anti-corruption policies. However, his choice of cabinet members and recent political decisions reveal his dependency on the old politico-business elites. Considering the energy decisions of the government during the past few years, this is especially apparent as they have been strongly in favour of coal while complicating investment in renewables. Considering that many government representatives up to the ministerial level, parliamentarians, and local politicians are involved in the coal industry in one way or another, this is unsurprising and likely to continue over the coming years. However the severe ecological and socio-economic impacts hereof, as well as the contradictions between Indonesia's climate rhetoric and its energy politics, have become more and more apparent. Recently, the government has consequently been criticised not only by domestic CSOs but also in international fora and reports.

Power to and from the People: Civil Society Contestation

Over the last few years, the number of CSOs and media representatives engaged in energy and climate issues has increased rapidly. While there were only very few and just one nationwide organisation working on these topics at the peak of Indonesia's coal rush in 2011 and 2012, many new groups have since emerged, while existing ones have added this key topic to their agenda. This development has resulted from an increasing awareness about the environmental and social costs of Indonesia's coal-based energy regime. These groups employ a broad variety of strategies for fostering a phase-out, and pursuing a more sustainable energy supply. Their activities range from direct legal and strategic support for affected communities to the issuance of policy drafts and recommendations for parliamentarians. As advocates for the most affected segments of the population, mainly smallholder farmers and fishers, they demand justice and compensation for the heavy burdens that they are forced to bear due to a loss of access to land, income, fishing opportunities, and well-being in general (Fünfgeld 2019a).

The growth of Indonesia's anti-coal movement has also been spurred by a growing transnational climate justice advocacy network and an increasing focus on questions of energy supply and transformation in global climate debates more generally. To CSOs, transnational exchange provides opportunities to network, mutual support, and learning opportunities from experiences in other parts of the world. Moreover, Indonesian activist groups have been able to connect their claims discursively to global climate justice demands, to attract financial and ideational support from groups from the Global North, and to enjoy increased visibility on the international stage that also helps to pressure the Indonesian government domestically (Fünfgeld 2019a). Some CSO representatives have also become members of the official Indonesian climate conference delegation. That does at least signal a certain openness to start talking about the problems related to Indonesia's fossil fuel-based energy system – being a topic somewhat avoided in earlier climate conferences meanwhile. Not long ago it was reported that Jokowi had expressed his intention to reduce the use of coal. However as of April 2020 there have not been any concrete

measures taken or even announcements made in this regard. On the contrary, there are still nearly 40 power plants under construction and an additional 68 in the planning stage.

The most difficult obstacle to overcome on the road to an energy transformation is evidently the vested interests of state representatives and the political influence of the respective businesses. Also, the new cabinet of Jokowi – in place since his re-election in 2019 – includes several individuals with key interests in the coal industry. Over the years, corruption and weak law enforcement led to a huge number of irregular mining concessions, where certain standards have never been met. The national Corruption Eradication Commission (Komisi Pemberantasan Korupsi, KPK) has been trying to tackle this problem with the support of CSOs in recent years. In 2017, it revealed that around 40 per cent of the 11,000 coal mining concessions evaluated did not meet "clean-and-clear" criteria, and should be revoked. This was an important step taken against corruption, environmental destruction, and illegal land use. However difficulties remain, and a large proportion of the concessions have still not been revoked or were but then later reissued to the very same companies. Additionally, in late 2019, the Indonesian parliament passed new amendments to the anti-corruption law that significantly weakened the KPK.

Towards an Energy Transition? Stumbling Blocks and Sparks of Hope

Even though intensifying domestic and international criticism of the Indonesian government's energy policy has led to some corrections therein, without a more fundamental policy shift the country is likely to only consolidate its dependency on coal for decades to come. Some positive measures taken include the recentralisation of the concessions system and the announcement of coal-mining moratoria on the district level, as made by the president himself. However, so far, not much has followed from these announcements, and by the time the competency for issuing concessions was shifted to the provincial and national levels most potential extraction areas were already covered with mines or concessions. Another spark of hope was the KPK's evaluation mechanism that documented the systematic violation of regulations by coal-mining companies and was meant to lead to the revoking of many concessions. However the well-established network of politically influential businesspeople and politicians with business interests torpedoed this process, and even managed to weaken this anti-corruption commission in the long run.

Ideas about what an Indonesian energy transition might even look like are still at a nascent stage. It was only in early 2018 that some CSOs would come together to discuss what central stepping stones towards a more environmentally and socially sustainable energy future might be. Obviously, depending on the general approach of the participating groups, there have been more and less market-oriented ideas put on the table. The most far-reaching vision articulated is probably the idea to decentralise energy production and to subsequently establish cooperative-like structures on the village level. Here, people would not only be consumers but also producers and owners of energy. So far there has not been a more concrete concept offered on how to realise this idea. However, many pilot projects in different parts of the country – such as on Sumba for example – do already exist, and could be used

as the basis for a broader strategy. A decentralised, small-scale strategy would help tackle the problem that, under current conditions, it is not rewarding for profit-oriented electricity companies to invest in small-scale projects on remote islands. Due to Indonesia's particular geography and the impossibility of establishing an interconnected grid, in fact, there can be no other solution but a decentralised one.

The increasing domestic and international attention paid to Indonesia's energy sector is an important source of pressure on its government. It is crucial that European non-governmental organisations as well as journalists support Indonesian CSOs and media who are bearing witness to and revealing the human rights violations, environmental destruction, and corruption that is at the heart of the country's coal industry – as related to both mining activities and the construction of power plants. Government representatives should raise these issues, and especially express their concerns about the weakening of the KPK and the continued environmental destruction and impoverishment ensuing from coal mining and combustion. Renewable energy companies should carefully assess the environmental impacts of their investments (especially with regards to large-scale or risky infrastructure such as geothermal explorations) and support marginalised local communities in gaining affordable access to electricity.

Many European banks have announced their divestment from fossil fuel industries in the last few years. Nevertheless, not all of them have completely done so, and many indirect financing activities persist. This includes, for example, hidden investments in mining instruments or in machinery used in coal-fired power plants. Moreover, the recently published report "Banking on Climate Change 2020" reveals that loans for fossil fuel companies are still on the rise internationally. Published jointly by several NGOs such as Sierra Club, Rainforest Network, Oil Change International, and Urgewald, the report also documents the continued involvement of European banks like Deutsche Bank, Commerzbank, and Credit Suisse in funding coal mining and related businesses. German and European policymakers should thus work towards and implement comprehensive divestment regulations regarding funding fossil fuel industries. Additionally, European countries should pursue an extensive coal phase-out. It is crucial that coal production at home does not lead to an outsourcing of environmental and social impacts via increasing imports from other countries. On the contrary, German and European policymakers should ensure the reduction of coal imports from countries like Colombia and at the same time also support phase-out and structural change in coal-dependent regions.

In order to improve electrification and living standards in a more environmentally and socially sustainable manner it is crucial to support decentralised, local energy providers. Especially, bilateral development cooperation should thereby take into account criteria of sustainability that allow local communities to manage small-scale renewable energy plants themselves in the long run. Already today, the German Corporation for International Cooperation (GIZ) as well as development cooperation agencies from other European countries are engaged in supporting renewables in Indonesia. In fact, energy is one of three priority areas of the GIZ in that country. Only if Germany and the European Union convincingly decarbonise their own energy systems, meet their climate goals, and successfully initiate a coal phase-out can they figure, however, as best practice examples and reliable partners in energy transformation processes elsewhere.

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