

Chapter 10 Impact of the China-induced Coal Boom in Indonesia: From a Resource Governance Perspective

Akihisa Mori

Abstract

Though Indonesia is well-known as major oil and gas exporter, it becomes net oil importer. It then turns out as a major coal exporter amid the China-induced coal boom. Meanwhile, coalmines are criticized as harmful to ecology and local livelihood, as many of them are located in the forest. Against this backdrop, this chapter analyzes how the China-induced coal boom has affected resource governance. It employs the typology on natural resource governance presented by Luong and Weinthal (2010) to assess how Indonesia's democratic decentralization and the revision of its Forest Law affected coalmining and deforestation. This chapter reveals that democratic decentralization changed the ownership structure to from state ownership without control to private ownership with control, and generated duplicate licensing authority and inconsistent and contradictory rules between the central and local governments, all of which have resulted in weak central control and widespread corruption. Chinese companies have capitalized on this weak control, backing local companies or their joint companies to obtain licenses---thus accelerating open cast mining. They have also invested in major Indonesian miners, gaining political power to protect their vested interests, which makes it difficult for the Indonesian government to enforce more stringent environmental and social safeguard policies and to shifting the energy system toward a low CO₂ pathway.

1. Introduction

Indonesia has been evaluated as one of the four resource-rich developing countries that has escaped from the resource curse: all of these countries have attained both (a) long-term investments exceeding 25 percent of the Gross Domestic Product (GDP) on average from 1970 to 1998, equal to that of various successful industrial countries lacking raw materials and (b) per capita GNP growth exceeding 4 percent per year on average over the same period (Gylfason 2001).

Indonesia's escape from the resource curse is explained by the three positive characteristics; the priority accorded to sound macro-economic management, control of rent-seeking activity, and an explicit concern to raise the welfare of the rural poor. Three institutions facilitated the achievement of these positive features; the capital fund that smooth the absorption of rent into the economy, espousal of the Extractive Industries Transparency Initiative that can shrink the scope of rent seeking activity, and a public sector investment evaluation unit that objectively compares the

prospective returns of offshore assets with those of government domestic investment (Auty 2006).

The Asian Economic Crisis and the subsequent political and economic turmoil changed the landscape of Indonesia. While real GDP growth exceeded 4 percent except during the crisis period, and the share of gross domestic fixed capital formation declined to less than 20 percent in the post-crisis period, the latter recovered to 25 percent in 2009. During 2000-08, domestic investment did not exceed US\$6 trillion, and foreign direct investment (FDI) did not exceed US\$15 billion. It was not until China's FDI reached US\$5 billion pre year that FDI regained momentum. However, China's FDI was concentrated on the mining sector. China accounts for 17 percent of the FDI in the mining sector but 3 percent of the total FDI (Figure 10.1). Since then, Indonesia has rapidly increased coal exports to China. Coal exports and production in 2013 more than doubled compared to 2008 (Figure 10.2). China's share of the coal exports increased to 30 percent during 2011-3 (Figure 10.3).

In addition, corruption and illegal natural resource exploitation became rampant in resource-rich provinces (Resourcedarmo 2004). Democratic decentralization that was accompanied by the crisis raised conflicts over authority and responsibility between central and local governments. It gave the latter wider discretion for granting concession, and obscured legal and illegal logging and mining (Casson and Obidzinski 2002). Local councils did not work effectively to prevent such a destructive activities.

Hong and Sambodo (2015) showed that the deepening collaboration with China offered Indonesia an opportunity for resource-dependent development. However, is Indonesia enjoying the China-induced coal boom and subsequent resource-dependence without a cost? If not, which policies and measures has the Indonesian government taken to address the side effects? What prevents them from working effectively if they show poor performance?

Garnaut (2015) points out that Indonesia is suffering from a resource curse due to a lack of natural resource funds, but its countercyclical fiscal policy, including fuel subsidy cuts, has prevented the curse from being as serious as in Brazil and South Africa with their pro-cyclical fiscal policy. However, the Indonesian government did not cut the fuel subsidy for the purpose of escaping the curse. It is a large fiscal burden that had squeezed its budget spending for development priorities, linked with the rise in world oil prices that stimulated the government to reform its fuel pricing policy (Yusuf and Resosudarmo 2014). While Indonesia has also enhanced its domestic market obligation (DMO) for resource sales and divestment requirements for foreign investors, these were intended to increase the domestic consumption of domestic resources, not to escape the curse. In the meantime, regulatory capture and environmental degradation have accelerated at the local level during the China-induced coal boom. Junita (2015) points out that poor performance arises from inconsistent law and its poor enforcement. To present a balanced view, however, it is

indispensable to securitize how China has capitalized on weak resource governance to earn a profit and to bring about the curse.

Against this backdrop, this chapter explores how China's massive coal imports and investments in the coal sector have affected resource governance and the environment in Indonesia, which had been destabilized by democratic decentralization. It employs the model of the relationship between the ownership structure and the fiscal regime demonstrated by Luong and Weinthal (2010) as an analytical methodology to analyze how China capitalized on resource governance to increase profits in the sector.

The remainder of this chapter is organized into five sections. Section 2 describes an analytical method. Section 3 analyzes the changes in the extent of resource governance in Indonesia, and section 4 presents an analysis of the impact that the China-induced coal boom and investments had on resource governance. Section 5 discusses the results and implications, and section 6 is the conclusion.

2. Analytical framework

2.1 China's methods of intrusion

The Chinese government usually follows three strategies to secure energy and food: first, purchasing them from the global market; second, acquiring shares in international resource companies in order to control them; and finally, buying land in other countries. It regards buying energy and food in the global market as the least desirable option for security reasons and pushes Chinese companies to invest in international companies and foreign land with resources (Cardenal and Araujo 2014: 137). It uses the China Development Bank (CDB) and Export-Import Bank of China (CEXIM) as financial vehicles for long-term import contracts and foreign investments.

The Chinese government is proactive in building strategic bilateral relationships with key energy producers and resource-rich countries in Central Asia, Africa, and Latin America. It especially targets countries whose leaders want to reduce the influence of the United States or in which the United States has lost political interest since the Cold War. Chinese state oil and gas companies have exploited their long-standing ties with the Communist Party of China (CPC) leadership to advance their corporate interests in foreign countries (Patey 2014).

China's demand and the corruption and the negligence of local elites lead to extensive overexploitation of natural resources around the world in two ways. First, resources are exported to China without any kind of processing that might generate wealth at the local level in terms of employment or investments. The Chinese authorities' complete lack of interest in monitoring the origin of resources complements this mode of operation (Cardenal and Araujo 2014: 207). While the CDB and CEXIM set out environmental and social safeguard standards, they rarely enforce

these standards for their customers (Economy and Levi 2014). The Chinese national oil companies CNOOC, PetroChina, and Sinopec are less likely either to promote transparency or to implement environmental and social welfare programs (Luong and Weinthal 2010: 211).

Second, Chinese businessmen capitalize on corruption to gain easy access to large quantities of natural resources without compliance with the law or the production method at the origin. They provide financing to local companies and people to get them to act as 'straw men', even in countries where the state does not grant concessions to foreign investors.

2.2 Extent of natural resource governance

Luong and Weinthal (2010) can be adopted to assess whether a country has strong or weak natural resource governance.

They disaggregate ownership and control into four possible resource development strategies: state ownership with control (S_1), private domestic ownership with control (P_1), state ownership without control (S_2), and private foreign ownership without control (P_2). S_1 is a strategy in which the state must own its rights to develop the majority of stakes (> 50 percent) in the extractive sector. Foreign involvement is limited either to participating in contracts that restrict their managerial and operational control such as carried interest or joint ventures, or to operating as service contractors. It fosters a weak fiscal regime: it creates low transaction costs for governing elites to derive income from resource rents and high social expectations for the population that the state should have an enlarged state role in generating and allocating resource rents. This directs the state to increasingly rely on indirect and implicit taxation for revenue, and to make the wide distribution of resource rents as visible as possible, undermining budgetary stability and transparency in the end.

Under P_1 , private domestic companies can own the rights to develop the majority of petroleum deposits and hold the majority of shares (> 50 percent) in the extractive sector. Contrary to S_1 , it fosters strong fiscal regimes: it generates high transaction costs, as governing elites must negotiate with private companies to increase their stake. The population perceives the role of the state as confined to collecting and redistributing resource rents and thus has lower social expectations. The combination of high transaction costs and low social expectations provides domestic private miners, governing elites, and the general population with an incentive to establish direct and explicit taxation that ensures predictable revenue streams for private miners and governing elites and convinces the general population to extract a fair share. This combination also makes it easier for the governing elites to convince the general population to implement a broad-based tax regime across sectors and to give up populist-style social spending to save its share of resource rents during booms to cover budgetary shortfalls during the burst and/or investing them in more productive uses.

S_2 is a strategy in which the state owns the rights to develop the majority of mining deposits and hold the majority of shares (> 50 percent), yet foreign investors are allowed to participate through more permissive contracts, such as production-sharing agreements (PSAs), which grants them significant managerial and operational control. Under P_2 , private foreign companies can own the rights to develop the majority of mining deposits and hold the majority of shares (> 50 percent), usually via concessionary contracts. Under S_2 and P_2 , the effects of the ownership structure on transaction costs, social expectations, and power relationships are mediated through the international system in which these foreign investors operate.

P_2 has the greatest potential to foster fiscal stability and transparency both within and outside the extractive sector, and to improve the daily lives of citizens and the developmental prospects of resource rich countries. The ability of foreign investors to essentially minimize their fiscal burden reinforces the governing elites' incentives to adopt broad-based tax reform. High social expectations vis-à-vis the state under S_2 instead dampen such incentives. Likewise, the foreign investors' ability to maintain stable and transparent expenditures that are directed toward reducing poverty and promoting socioeconomic development is more likely to foster budgetary reform under P_2 than S_2 owing to differing levels of societal expectations vis-à-vis the state.

However, P_2 can foster fiscal stability and transparency only where foreign investors are supported and pressured by international financial institutions (IFIs) and international non-governmental organizations (INGOs). As long as they make a serious commitment to corporate social responsibility (CSR) to address the economic and social needs of the affected communities, they exercise their ability to minimize their fiscal burden to the government. On the contrary, governing elites are likely to direct foreign investors' spending toward their own pet projects either at the national level (under S_2) or at the subnational level (under P_2), where they can unilaterally renege on the contracts of foreign investors that are not committed to CSR.

3. Impact of the ownership structure on institutions and governance

3.1 Change in ownership structure

In the 1960s, the Indonesian government changed its ownership structure from private ownership without control (P_2) to state ownership without control (S_2). In the Dutch colonial period, Indonesia obtained a minimum resource rent under foreign dominance over natural resources, as it had to rely on foreign capital, technology, and expertise to explore and produce natural resources. To regain state control, the Indonesian government established Pertamina in 1966 as the state monopolized company that conducts integrated upstream and downstream business and implements profit-sharing agreements (PSAs) in the oil and gas sector (Luong and Weinthal 2010: 191). Under a PSA investors undertake exploration and production, and in return for carrying the initial risk,

they receive a share of the oil and gas produced as payment.

In the coal mining sector, foreign participation was allowed in the form of contractors to PT Bukit Asam Tbk, the state-owned coal mining company (Presidential Decree 49/1981), through a Contract of Work (CoW) system. While the contract system ensured the security of tenure (*Conjunctive Title*) and security of investment (*Lex Specialis* treatment)¹, it was discriminative in that only Indonesian companies, not foreign companies, were allowed to obtain the ownership of mining under the local indigenous mining permits (KP) framework (Mining Law of 1967).

This ownership structure enabled Indonesian political elites to gain significant oil and gas rent for spending at their own discretion. The government obtained 85 percent of the after-tax share of oil and 30 percent of gas output from a project, and 13.5 percent of sales revenue from mining projects (PT Adaro Energy 2014). In addition, they could mobilize Pertamina as a source of financing to pursue their political agenda as Pertamina was granted exclusive powers to appoint private companies as contractors and to issue and administrate production-sharing contracts (PSC), in exchange for two percent of sales earnings as a commission (Law 8/1971). Political intervention increased after Pertamina's financial crisis of 1975, which allowed the state to incorporate Pertamina's earnings into the budget (Kato 2005).

Democratic decentralization, coupled with underinvestment and natural maturation of producing oil fields, prompted the Indonesian government to shift to private ownership without control (P₂). Pertamina's monopolistic position in the oil and gas business was terminated, and it has become a state limited-liability company that is subject to the same contracts as other private companies. Private participation was allowed under the PSA with BP Migas and BPH-Migas, both of which were established to take over Pertamina's authority on the issuance and administration of PSAs and supervision of day-to-day operations (The Oil and Natural Gas Law of 2001). They are also officially permitted to make contracts directly with buyers.

While recent fruitless exploration directed foreign oil companies prop up output from existing fields instead of discovery of new ones², the change in ownership structure, coupled with fruitful exploration in recent years, has resurged foreign investments in gas production. The BP-led consortium started operations at Tangguh LNG in West Papua in 2009, and a Mitsubishi Corporation-led consortium did so at Donggi Senoro LNG in Central Sulawesi in 2015. It also prompted foreign contractors and the National Gas Company (PGN) to develop a gas pipeline to Singapore. As a result, foreign companies have become dominant in oil and gas production³.

Meanwhile, the government is facing difficulties in satisfying the high social expectations for poverty alleviation and development. The transaction costs for charging oil and gas rent has become too high to obtain additional revenue through Pertamina.

This increased the pressure to shift the ownership structure back to S₂. Foreign investors are

subject to restrictive regulations, including: (a) a domestic market obligation (DMO) that mandates that contractors supply 25 percent of the produced oil and gas to the domestic market (GR34/2004); (b) an import duty and VAT on imports of capital goods needed for production even during the exploring period; (c) a restriction on foreign workers and encouragement of employment of Indonesian workers, as well as transfer of knowledge, skills, and expertise to the local workforce (MEMR Decree 31/2013); and (d) a negative investment list that restricts foreign shareholdings in several business activities, covering drilling, pipeline development, and oil and gas survey services (Presidential Decree 39/2014) amid implementing nationwide gas pipeline network development projects. Pertamina is still influential in concession due to a lack of coordination among MEMR, BP-MIGAS, and Pertamina during the Reformasi, the collapse of supervisory capacity and increasing irresponsible behavior of technocrats (Kanekiyo and Inoue 2006). The Constitutional Court decision on the dissolution of BP Migas has further opened the way for Pertamina to gain a right to first refusal over any contracts and to issue upstream business licenses⁴ (Adelman et al 2015).

In the coal and mineral resource mining sector, the government implemented a mining business license (IUP) and a single area-based licensing system in the Mining Law of 2009 as an alternative to the KP framework and CoW system, which had collapsed amid the Asian Economic Crisis⁵. As new licenses are issued through a tender process instead of direct appointment, the new system seems to provide non-discriminative mining business opportunities for both foreign and domestic investors (Junita 2015). However, it imposes several restrictions on foreign IUP holders. These include a divestment requirement to compensate for untaxed resource rents (GR 23/2010, amended by GR 24/2012)⁶ and an export ban on raw minerals (GR 7/2012) and then progressive rates of export duty after the ban was canceled by a Supreme Court decision. This also links divestment requirements with progressive rates of export duty to encourage foreign companies to start domestic processing and refining (GR 77/2014 and MEMR Regulation 8/2015). Also included in the restrictions on foreign IUP holders is a coal DMO (Law 4/2009) to satisfy increasing domestic demand for the 35GW electrification Program. The government set the target of 92.3 million tons in 2015 and raised it to 111 million tons in 2016. To secure a stable and cheap coal supply, it requires coal miners to supply coal that satisfies quality standards for mine mouth power plants at a cheaper price in 2016 and requires mine owners to hold a minimum 10 percent of the equity of power plant companies.

All of these policies and measures have reinforced the shift in the ownership structure in the coal and mineral resource mining sector from state ownership without control (S₂) to private ownership with control (P₁).

3.2 Impact on fiscal regime in the central government

The change in the ownership structure has prompted the central government to shift its fiscal regime toward a stronger one: a broad-based tax regime across sectors. To increase oil and gas revenue, it has reduced its tax rate and increased its flexibility in favor of contractors to stimulate investment while maintaining the basic framework of PSA intact. It has announced a plan to raise the ‘unfairly low’ royalty rate of 3-7 percent and 2-6 percent of sales proceeds for open pit and underground mining to 13.5 percent under the CoW system⁷ (Indonesia Investments 2015). It has also implemented measures to formalize resource revenue, including: (a) redefinition of oil and gas revenue as Government Share and the Corporate and Branch Profit *Tax* (C&D Tax) to remit them to the State Treasury account instead of the Oil and Gas accounts (GR 79/2010); (b) implementation of the Cost Recovery and Income Tax (GR 79/2010); and (c) imposition of an additional royalty on net profit by 10 percent for mining license holders that conduct business activities in state forest reserve areas (IUPK), which is expected to enhance government monitoring over capital expenditure and mining operating costs of IUPK mining companies (PwC 2016b: 37).

These tax measures have increased government revenue from direct and explicit taxation: the revenue from income tax surpassed non-tax resource revenue in 2006 and the gap has widened (Figure 10.4). While non-tax revenue from coal increased from 4.5 trillion IDR to 37.6 trillion IDR in 2014 (Figure 10.5), it amounts to only 17 percent of non-tax revenue from oil and gas and 4 percent of central government revenue, respectively. Accordingly, the share of royalties declined from 79 percent in 2006 to 61 percent in 2014.

Nonetheless, an ad valorem royalty, as well as widespread under-reporting of production volumes, under-invoicing, and other evasion mechanism has brought about an insufficient collection of non-tax coal revenue: it was estimated that 22 to 46 percent of potential non-tax revenue (IDR 16-51 trillion) from reported coal sales was not collected in the 2010-12 period due to weak compliance (World Bank 2015: 44). The government set a benchmark price to serve as the floor price for royalty calculations to stabilize resource revenue at a time of price collapse.

On the expenditure side, central expenditure retains the feature of a distributive state despite the government’s pledge on the removal of energy price control by 2007 as a condition of the emergency loans from both the IMF and ADB (Sakamoto 2006: 20). Subsidy and personnel expenditures have shared a significant and increasing portion, which squeezed capital investment (Brodjonegoro 2004). The government implemented fuel subsidy cuts in 2005 and 2008 with a temporary impact, partly because it noted Suharto’s step-down after implementing the IMF-led fuel subsidy cut and worried that a fuel subsidy cut might trigger social unrest. It was not until 2015 when the government withdrew its gasoline subsidy and linked the domestic price of diesel and kerosene with the international market that the share and amount of subsidy was significantly

reduced (Figure 10.6).

To complement a shortage of capital investment, the central government has attempted to mobilize foreign capital. It called on foreign investors for tender in the first fast-track programs (FTP), which aims to increase the power generation capacity of the National Power Company (PLN). It adopted a public-private partnership (PPP) scheme to accept independent power producers (IPPs) in the second FTP while PLN projects still accounted for a majority. To attract FDI in PPP projects, it obtained a World Bank loan to establish the Infrastructure Guarantee Fund, an independent State-Owned Enterprise to provide business viability guarantees for infrastructure PPP projects. The detailed procedures and steps for land acquisition shown in the Infrastructure Guarantee Fund enable easier land acquisition for developers (Law 2/2012).

Nonetheless, government infrastructure spending did not increase as planned, and actual disbursement fell to 72 percent in 2015 from 78 percent in 2014 (Amirio 2016). State-owned firms did not always have the management capacity and funding for the projects. A lack of nationwide land tenure data hampers effective enforcement of the Land Acquisition Law of 2012, which prolonged the process. A decline in fiscal revenue has squeezed the amount of saved budget generated by the scrap of the energy subsidy for infrastructure development.

3.3 Impact on fiscal regime at the local government level

Democratic decentralization changed the transfer system from one dominated by earmarked grants to one largely relying on general grants, revenue sharing, and local original revenue. Four types of commodities are designated as shared non-taxes: oil and gas, mining products, forestry products, and fishery products. Local governments in the place of origin receive the most, with 6 percent of non-tax oil revenue and 12 percent of non-tax gas revenue, while the central government retains 85 percent and 70 percent, respectively (Table 10.1). Additional shares are allocated to both the local and provincial governments (Law 33/2004, as amended to Law 25/1999). Mining royalties were redistributed to local governments in the same province. Because the revenue sharing deteriorated into fiscal disparity among local governments, the central government created the General Allocation Fund (DAK) to set aside at least 25 percent of net revenue as regional expenditure, of which the provincial governments receive 10 percent and local governments 90 percent. Distribution among local governments is decided by the fiscal gap defined in Law 25/1999, taking political issues into account.

The rearrangement of fiscal allocation rule gives room for local political elites to pursue their own economic benefits. First, they set the local tax and charge systems and establish local government enterprises that handle business activities previously operated by big private companies or that exploit natural resources. Second, they establish new local governments to gain

resource revenue and general allocation funds at their disposal. This holds especially true of natural resource rich provinces such as Riau, where the Siak regency was established, and East Kalimantan, where the Bontang municipality was established, and several regencies became independent to establish the North Kalimantan province. Third, they can exert political influence on the central government to gain additional budget, allowing a soft budget constraint (Brodjonegoro 2001). Finally, they issue CoW, coal CoW (CCoW), and KP to a large number of companies to increase local government revenue.

This strengthens the characteristics of the rentier and distributive state in the fiscal regime of local governments in the coal production provinces of East and South Kalimantan and South Sumatra (Figure 10.7). Local governments at the place of origin of oil, gas, and coal have capitalized on the new income-generating opportunity to obtain a significantly higher tax share and non-tax natural resource revenue. This holds especially true of East Kalimantan where all the local governments at the regency and municipality level enjoy increasing revenue from the mining business (Table 10.2). They obtain larger amounts and a higher share of non-tax natural resource revenue, which dominated the majority of their revenue during the coal boom (2009-13). While not comparable to those in East Kalimantan, the local governments in South Kalimantan and South Sumatra gained significantly higher non-tax natural resource revenue than the national average in the boom.

These local governments capitalize on increased revenue to expand personnel expenditure rather than capital investment in the boom, as they are free to spend transfers or unconditional transfers given to local governments. While the capital expenditure on paper is larger than the national average and more than 25 percent of the budget that the Widodo administration mandated all the local governments to earmark for infrastructure development⁸, in-depth securitization is required to ensure that their spending is really productive and helps economic diversification. Even when they spend it for infrastructure development, local political elites may intervene in the process to gain political and economic rent from the project, slowing down progress (Morishita 2016).

3.4 Impact on resource governance

In the oil and gas sector, the shift back to state ownership with control (S_2) has been associated with corruption. Pertamina's regained power in concession often prolongs negotiations over ownership structure with foreign contractors⁹. It enables Petral, Pertamina's energy trading unit, to conduct fuel smuggling and corruption, which is under investigation in 2016. Strong internal protesting led the Widodo government to fail to reform Pertamina's corporate governance.

Decentralization in the mineral licensing system has also spread corruption by linking political confusion with a widespread concern about illegality (Tsing 2005; Indonesian Investments 2014).

Local governments at the regency level are delegated the authority to regulate and issue KP in their jurisdictions for all the minerals, including the strategic minerals of oil and coal, without consulting the central government (GR 75/2000 and Mining Law of 2009). This broke the nationally uniform cadastral rules to pieces, disabling the local governments' ability to effectively use a nationally unified licensing database and weakened property rights. While the central government attempted to determine specific mining areas through detailed mapping conditional upon consultation with local governments, the Constitutional Court ruled against this demarcation, deciding that local governments had the authority to designate the areas. Besides, detailed mapping was lagging far behind schedule. This made local governments prone to a lack of responsible control while letting the mining licenses overlap (Spiegel 2012) so that they could favor local investors that shared a desire for the revenue maximization purpose with them. The MEMR admits that more than half of the 8475 mining licenses issued from May 2011 to May 2014 do not comply with the standard procedures, resulting in overlapping concession areas. In Jambi, 99 mining licenses were revoked due to overlap in mining areas and maladministration, followed by 83 in South Sumatra and 2 in South Sulawesi (Indonesian Investments 2014).

This has forced legal investors to spend a significant amount of time and money to identify promising areas for license applications and to check the licensing regime for compliance with the rules. Large miners have hesitated to invest to avoid the risk of overlapping licensing and impartiality of local decision-making (Venugopal 2014). No new CoW has been developed since 2000 (Bhasin and Venkataramany 2008). Informal miners, in contrast, are unwilling to leave the illegal spectrum, bribing security officers of the mining company or cooperating with local authorities to prevent their resources from being swallowed up by large mining companies (Lestari 2013).

The absence of the ability of the local population to hold local politicians accountable for their decisions has also left room for local rent seekers to capture them to secure privileged positions. As political parties have no trust from the general public and thus cannot collect membership fees, they rely heavily on mining industries to finance their political campaigns in return for mining licenses at the district level in Kalimantan.

In that context, the mining industry can easily disguise profits and wriggle out of paying taxes, as a lack of transparency has made it difficult for the tax authority to obtain good and reliable information about contracts, production, and the cash flow of the companies (Jorde, 2013). Local political elites and officials have become prone to corruption.

In the Kutai Kertanegara district in East Kalimantan that issued 687 KP permits by 2009, for example, 8 senior district government officials were jailed in 2005-10 on corruption charges, and the district head for 2005-10 is in jail for corruption of IDR124 billion (USD13million) (Down to

Earth 2010). The number of small miners that operated with the KP was boosted from 650 in 1999 to more than 8,000 in 2010 (Ives 2015). Human Rights Watch (2013) estimates the annual loss of the government at US\$1.8 billion for mining licenses that the local governments had allotted illegally to companies on state forest areas in the four provinces in Kalimantan. World Bank (2015) also estimates that erosion still amounts to 22 to 46 percent of potential non-tax revenue (IDR 16-51 trillion) from reported coal sales.

To overcome the duplicated licensing authority, the Director General of Minerals and Coal (DGMC) built the Minerba One Map Indonesia (MOMI), a web-based Geographical Information System (GIS) that covers all the data of the IUP. The DGMC employed the MOMI to announce a Clear and Clean IUP List (CnC List) and to issue a Clear and Clean certificate (CnC certificate) for IUP holders that demonstrate that they are free of competing claims (MEMR Regulation 2/2013). While this encouraged more than 40 percent of IUP holders to obtain a CnC certificate (Indonesia Investments 2015a), illegal coal mining was estimated at 50-80 million tons per year (Coaltrans Conferences 2014), amounting to 11-18 percent of the yearly production. In the end, the central government took over the legal authority of issuing mining business licenses from local governments (Law 23/2014, an amendment to the Law 32/2004 on Regional Government).

3.5 Impact on livelihood and ecology

Open cast or surface mining is responsible for extreme and irreversible environmental destruction within the area mined, with an especially detrimental impact on local water resources. Groundwater needs to be pumped out of the mine pits in order to access the seams, lowering groundwater levels over a large area. Forests need to be cleared, and fertile topsoil is removed in order to access the coal. In these processes, open cast coal mining can contaminate valuable underground aquifers, streams, and rivers. The contaminated water may contain high levels of salts, sulfate, iron, aluminum, and toxic heavy metals such as cadmium and cobalt. Many heavy metals bio-accumulate in tissue, and if they reach high enough concentrations, they can cause health and reproductive problems in wildlife and humans. As metals settle and persist at the bottom of streams, past operations can threaten human health and the environment for many years to come, even if current miners comply with regulations (Greenpeace Southeast Asia 2014).

Nonetheless, inconsistent and contradictory rules between the Mining Law of 2009 and the Forest Law of 1999 allow coal mining in the forest and accelerate deforestation (Resosudarmo 2004). While the Forest Law of 1999 prohibited open cast mining in the forest conservation areas, the prohibition was not incorporated into the Basic Forestry Law of 1967. Besides, Megawati revised the law (Law 19/2004) to exclude 13 major companies out of 150 concessionaires that had operated open cast mining within the protected forest before the enactment of the 1999 Forestry

Law from the prohibition. While a group of non-governmental organizations (NGO) and environmentalists blamed Megawati for the revision's justification of their operation and demanded revocation, the Constitutional Court decided not to violate the Constitution (Saraswati 2005).

Then, the Ministry of Forestry issued 842 licenses for underground mining during 2005-11, covering 2.03 million hectares of forest (Ministry of Forestry 2011). The regulation has been further loosened to allow underground mining in protected forests where they are deemed strategically important (GR 10/2010), and non-forestry activities in both production forests and protected forests that are subject to a "borrow-and-use" permit (IPKH) from the Ministry of Forestry (GR 24/2010, amended by GR 61/2012). The "borrow-and-use" permit holders are required to pay various non-tax state revenues pursuant to these activities, and they will need to undertake reforestation activities upon ceasing their use of the land (PwC 2016b).

Meanwhile, the Ministry of Environment requires contractors to obtain an environmental license as part of an environmental impact assessment (AMDAL) and/or the environmental management efforts (UKL) and environmental monitoring efforts (UPL) process, since an environmental license has become a prerequisite to obtaining other relevant business permits (GR 23/2010). They are also mandated to periodically submit environmental audits and to set aside funds as an environmental bond in a government-designated bank to be spent on environmental rehabilitation and recovery. In addition, they are required to obtain Forest Utilization (IPPKH) for the project within and/or adjacent to the protected areas (production and/or protected forest) and/or a Conversion Permit for ones in a conservation forest. To enhance regulatory and enforcement functions, the Ministry of Forestry and Ministry of Environment were integrated to become the Ministry of Environment and Forestry (MoEF). To support systematic and integrated management and protection of the environment, the government is considering to assume MoEF, provincial governor, regent/mayor responsibility to formulate an environmental management and protection plan (Prasetyo 2016).

Nonetheless, AMDAL is not considered to be effective due to the absence of transparency in the mining industry information and a lack of local community involvement in the decision-making process (Junita 2015). It is critically dependent upon how license-holders react as these measures deprive the license-holders of their vested interest in local governments (World Bank, 2014; Suzuki, 2016).

Instead, MEMR requires contractors and license-holders to comply with relevant laws and regulations on occupational health and safety, environmental management, and local Community Development (CD). For PSA contracts executed on or after 2008, contractors and license-holders have become explicitly responsible for conducting CD programs without cost recovery during the term of a PSA (MEMR 22/2008) (PwC 2016b).

In response, major coal miners such as Adaro Indonesia, Bumi Resources, and Berau Coal

launched community development and environmental management programs, including mine water management, land reclamation, and rehabilitation of biodiversity. They have been rewarded with green or blue awards in the environmental rating program (PROPER), gold awards in Aditama and/or good performance in the mining sector award from MEMR (Table 10.3).

Nonetheless, INGOs and local environmentalists have uncovered a number of extreme and irreversible cases of environmental destruction at and around coal mines. Severe destruction of livelihood and ecology have been uncovered within and around the PT Kaltim Prima Coal (KPC) project site, the second largest production site in Indonesia, including: discharge of untreated wastewater that contaminates river water downstream that villagers rely on for daily needs; frequent flooding, affecting at least three villages and a main road downstream; serious dust and noise disruptions from blasting; and forced relocation from ancestral homelands, which has distressed villagers due to insufficient land to cultivate or hunt (Johansyah et al. 2014). The Arutmin project site, the third largest, has also been criticized for reclamation of post-mining land with inadequate soil replacement and acacia plantations that do not restore the original biodiversity, setting aside forest destruction and toxic water contamination (Greenpeace Southeast Asia 2014). Small miners are also responsible for destruction. Some of them have abandoned their operations, leaving behind poorly managed waste pond and untreated mining sites (Fiyanto 2014).

3.6 Short summary

Democratic decentralization changed the ownership structure from S_2 to P_2 in the oil and gas sector and from S_2 to P_1 in the coal and mineral resource sector. However, Indonesia faces declining oil and gas production and slower growth in royalty revenue in the coal and mineral resource sector. High social expectations in the name of resource nationalism have forced the government to take the maximum resource rent from foreign investors, which discourages them from exploring new oil depots. A duplicated licensing system, inconsistent and contradictory rules between the Mining Law and the Forest Law, and corruption at the local level make the distinction between legal and illegal mining ambiguous, allowing miners to pay smaller royalties than for the actual production.

The government is responding differently in the two different sectors. In the oil and gas sector, it is shifting the ownership structure back to S_2 to gain maximum resource rent from Pertamina while enhancing its corporate governance. In contrast, the government is enhancing the tax regime to increase non-tax resource royalties in the coal and mineral resource sector and is pressuring miners to make a serious commitment to CSR programs to improve livelihood and ecology. Nonetheless, the government inaction toward abandoning open cast mining offsets the effectiveness of miners' CSR programs.

4. Impact of China-induced coal boom and investment

China's coal imports and investments have several implications on upstream and downstream business in the extractive sector in Indonesia.

4.1 Disruption of livelihood and ecology

First, the end of the coal boom is likely to pose environmental risks as a number of local small-scale miners that directly or indirectly export coal to China often expose land and poorly maintain tailing dams and sediment ponds after abandoning their operations (PT Berau Coal Energy Tbk 2015: 130).

Chinese purchasers have provided low-cost capital to support the expansion of mining companies to let them to act as 'straw men' in Indonesia (Garnaut 2015). Chinese and Hong Kong purchasers also buy coal from IUP holders. IUP holders have increased their coal production and exports since 2005 and increased their share to one-third of coal exports (Figure 10.8). Twenty percent directly export to China and Hong Kong and the rest export through Indonesian traders (Figure 10.9). In addition, there are thousands of small local KP miners that are outside the control of MEMR. They may collude with local political elites and/or officers for coal smuggling. This is why the government designated 7 ports in Kalimantan and Sumatra as coal export ports and required coal exporters' registration as a way of improving supervision of coal export sales and optimizing government revenue from coal exports (Minister of Trade 49/M-DAG/PER/8/2014).

Meanwhile, they often capitalize on massive purchasing power to achieve favorable terms in their contracts. This makes Indonesian coal miners susceptible to price fluctuations and causes them to abandon their operations during times of low market prices.

A typical example is CNOOC's gas purchasing price from Tangguh LNG. Capitalized on massive purchasing power, CNOOC forced Tangguh LNG to compete with Australia over the long-term supply contract to Guangdong province in China, but it eventually picked Australia. Instead, it offered Tangguh LNG a contract with neighboring Fujian province in China but with unattractive terms and conditions: a significantly lower fob price of US\$2.4 per MMBTU for 2.6 million tons of LNG export per annum for 25 years in 2002 (Kato 2005). This triggered a race to the bottom over terms and conditions, losing potential export earnings from both new and existing customers. It took more than ten years for the Indonesian government to raise the price up to US\$8, which is still lower than the spot price sold to Japan (Cahyafitri 2014).

Low export prices can trigger overexploitation and low-cost production that do not include social and environmental costs. China's coal import tariff and declining coal demand since 2014 have further dropped the coal price for Indonesian miners, forcing them to abandon their operations and leave polluted water and soil untreated.

4.2 Manipulation of Indonesian policies

Second, China enhances its political influence in Indonesian policymaking to protect its vested interests, by increasing its economic influence on major coal miners that have political power to get them to act as their agents in Indonesia.

PT Berau Coal has also grown to be the fifth-largest coal producer due to massive exports to China, which accounts for about 44 percent of the company's total sales. China Huaneng Group, which owns Guangdong Yudean Group jointly with the Guangdong provincial government, has purchased a 51 percent stake of PT Berau Coal (Wang and Ducruet 2014).

The Qinfra Group and Yuehe have become top 10 customers of Arutmin Indonesia, and Huaneng Power International and China Light & Power have become top 10 customers of KPC (Bumi Resources 2012). Both companies expanded their production to be the fourth and second largest coal producers in Indonesia after Bakries Group's Bumi Resources acquired stakes in the early 2000s (Bumi Resources 2015). When Bakrie Group faced financial distress in the 2008 Global Financial Crisis, China Investment Corporation (CIC) obtained stake in KPC in exchange for providing US\$1.9 billion in debt instruments (Bumi Resources 2015), officially holding a 19 percent stake (worth USD \$950 million). When the coal price drop worsened the group's financial status in 2015, the CIC increased the stake up to 22.9 percent of Bumi Resources, the parent company of Arutmin Indonesia and KPC, in exchange for accepting its new share issuance (Timmerman 2017).

This investment enables Chinese investors to protect their vested interests from policy changes as major Indonesian coal miners have acquired political power under the democratic decentralization regime. Aburizal Bakrie, ex-chairman of the Bakrie Group, was appointed as the Coordinating Minister for Economy and then the Minister of People's Welfare under the Yudoyono government and became the chairman of the Golkar Party. Chinese purchasers increased coal imports from them. These major coal miners provide funding for and play leading roles in political parties and are well placed to protect themselves from unfavorable policy changes. This makes it difficult for the government to enforce effective environmental regulation and taxation of the mining industry (Garnaut 2015), especially those with Chinese investments, despite criticism for environmental and social disruption.

Chinese investors also take advantage of Indonesian coal miners' transformation into coal power plants to expand the coal business. Indonesian coal miners are suffering from recent volatile coal prices (Singgih 2017), more stringent quality standards, and a requirement to hold a minimum of 10 percent of the equity of power plant companies. In response, they are looking for opportunities to transform their businesses into coal power plants in Indonesia and foreign countries (Wibaba 2015).

Few Indonesian coal miners, however, have enough capacity and adequate technology to construct and manage coal power plants. Chinese investors establish joint companies with them to assist the transformation. PT Bukit Asam (PTBA), the third largest coal producer in Indonesia, agreed to a US\$1.2 billion (IDR 15.6 trillion) loan from the CEXIM when it joined a coal power plant project, despite its refusal of China's financing for its mining activities. It created PT Hudian Bukit Asam Power (HBAP), a consortium with China Hudian Hong Kong Company to develop the PLTU Banko Tengah coal power project (2*620 MW). Under the project, a coal supply agreement of 5.4 thousand tons annually for 25 years, an EPC contract with PT HBAP and China Hudian Hongkong Company, and an O&M contract with PT HBAP and China Hua Dian Corporation have been executed. This contractual arrangement implies that Chinese construction workers, operators, and PTBA will profit for 25 years at the expense of an electricity tariff paid by the Indonesian population (Suzuki 2015).

To win the support of the Indonesian government and to ensure Chinese companies' entry into the coal power business, the Chinese government reached an agreement with the Indonesian government regarding cooperation in the construction of power plants through environmentally sustainable technologies on a mutually beneficial basis, and in the planning, construction, operation, and maintenance of electrical grids (People's Republic of China and the Republic of Indonesia 2015). Under this pressure, the Indonesian government is forced to take responsibility for its coal power business.

4.3 High carbon development

Finally, Chinese investments in the electricity sector will perpetuate greater carbon emissions for the 20-30 years to come. Chinese companies have won engineering, procurement, and construction (EPC) contracts for thirty-six coal power projects (Hervé-Mignucci and Wang 2015), which would satisfy the capacity increase target in the power development first FTP. In addition, CEXIM pressured the Indonesian government to accept an unconditional government guarantee for credit. This de facto shifts the business risks, including land acquirement and stable supply of coal, for the PLN.

In the second FTP that aimed to increase power generation capacity by 10GW, the government expected IPPs and renewable energy to share the majority. This resulted in 3 coal power projects with a number of proposals for infrastructure development projects (Bappenas 2015). It had no choice but to increase the share of coal power up to 60 percent in the revised program and 55-65 percent in the 35GW program.

However, this power development contradicts the Intended Nationally Determined Commitment (INDC) that pledges a greenhouse gas (GHG) emissions reduction by 29% by 2030 compared with

business as usual. The Indonesian government is looking for opportunities to gain credits through the Clean Development Mechanism from foreign countries by suspending issuance of palm oil plantations on peatland and in tropical forests and recovering peat soil to prevent forest fires, both of which reduce emissions. Nonetheless, coal power will increase the emissions more than the offset by forest fire prevention.

5. Discussion

Indonesia stands at a crossroad between industrialization with a heavy reliance on Western countries and resource-based development with an increasing reliance on China. For many years, miners from Western countries have required the security of tenure and security of investment for its mining business. Despite the divestment requirement backed by the rising resource nationalism, Freeport Indonesia has insisted that these securities refuse the requirement. Meanwhile, Western countries are importing and making investments in the footwear, garments, and textile industries, which gives strength to the Indonesian manufactures to compete in the world market. The export earnings have enabled Indonesia to reduce its resource dependency, providing enough fiscal revenue to produce more a stable fiscal regime and transparency to make Indonesia less vulnerable to a resource boom and burst. These industries have gradually controlled wastewater while discharging polluted wastewater at the outset (Mori 2008).

Meanwhile, basic labor rights for workers including the freedom to organize and collectively bargain are frequently denied, and a decent wage at factories in Indonesia are constellated as labor-intensive production points in the global supply chain of the world's most profitable Western transnational companies with brand names (Connet, Dalany and Rennie 2016). It is still a standard practice for factory employees to work seven days a week without overtime or proper benefits (Hodal 2012). While the expanding political influence of the union in local executive elections has provoked massive strikes over minimum wage hikes every year (Moestafa 2013), the government set out Regulation No. 78/2015 on the Policy of Wage that excludes unions in annual negotiations over the minimum wage, as well as restricts the minimum wage hike to within the total percentage achieved by adding percentage inflation and percentage growth of gross domestic product (GDP) each fiscal year.

China provides an alternative development pathway. The Chinese government ostensibly respects the priority of the host country government and seeks business opportunities for Chinese companies, especially state-owned enterprises that can earn the maximum profit with low risk. In Indonesia, it respects the divestment requirement and chooses to provide low-cost capital to support the expansion of local miners, instead of forcing the participation of Chinese companies. It also chooses to support Indonesian coal miners to expand the downstream power generation industry as

the minor partner in line with the coal DMO and the requirement of holding a minimum 10 percent of the equity of power plant companies.

Our analysis demonstrates, however, that China's provision of low-cost capital to local small miners and their investments in major coal miners strengthen their vested interests and political power. This increases the abandonment of open cast mining, the underlying cause of notorious disruption of livelihood and ecology, and increases GHG emissions, and leads to difficulties for the government to prevent the disruption and to attain the pledge on GHG emissions reduction in the INDC.

In addition, China has deprived Indonesia of its industrial competitiveness amid the coal boom, as shown in chapter 8. This holds especially true of electrical appliances that led the rapid industrialization in Indonesia before the Asian Economic Crisis. This led the country to resource-dependent development that is vulnerable to resource price and China's demand and deprives opportunities to enhance human capital that is essential to advance development (Gylfason 2001).

In this regard, stronger resource governance is indispensable for Indonesia to minimize—the tradeoff between “foreign controlled mining with low wage manufacturing exports” and “resource-dependent development with trade, social, and environmental deficits.” A series of policy reforms under the Widodo government is heading in this direction. The Detailed Procedures for Granting Operation Production to IUPs and IUPKs was amended so that the government can renegotiate CCoWs (PerMen 32/2015). A tax amnesty program is under implementation to improve tax compliance and encourage the repatriation of offshore assets.

To enhance credibility and simplify administrative procedures, the Corruption Eradication Commission (KPK) has been mobilized to investigate mining firms in 12 provinces and the Supervision Coordination of Mineral. Coal Governance (Korsup Minerba) has been established to ensure compliance with basic laws, such as not overlapping with other mines, assessing environmental impact, and preventing payment leakage to the government, as well as to pursue data and improve information systems (PWYP Indonesia 2016). Indonesian banks have been required to stop all lending to coal-mining projects in East Kalimantan (Greenpeace Southeast Asia, 2016) when the Korsup Minerba released that local governments revoked around 40% in permits (Burton, 2016).

So far, these reforms have seen mixed results. While the government obtained trillions of rupiah from a number of mining firms that previously had not paid their full royalty payments (Cahyafitri 2015), the amount in arrears still remains worth IDR 5.07 trillion (US\$380.2 million) in total as of February 2017 (Amianti 2017a). The unattractive terms and conditions in the amnesty program has brought about disappointing results, with IDR 136.5 trillion (US\$10.5 billion) or 13.6 percent of the

full target of repatriation (Indonesia Investments 2017). In Kalimantan, 1041 out of 6041 taxpayers in the mineral and coal mining industry joined the amnesty, with total payments reaching IDR 228.6 billion (US\$17 million), and 78 out of 1114 taxpayers in oil and gas joined, with payments totaling IDR 40.8 billion (Adri 2016). The MEMR warns that it will revoke operating permits of mining and coal companies with arrears in non-tax revenue payments.

Nonetheless, Indonesia is heading for formalization of resource revenue under private ownership with control (P₁), and thus toward stronger resource governance. It is possible to reduce the disruption of livelihood and ecology, as the government faces smaller protests and transaction costs for revocation for the reason of arrears in non-tax revenue payment than for noncompliance with environmental and social regulations that impose the heavier burden of proof on and requires wider support to the government. More importantly, the Chinese government and investors cannot openly oppose the reform even if they are sacrificed.

6. Conclusions

This chapter discusses Indonesia as a case to analyze how the China-induced coal boom has affected resource governance, which was destabilized by democratic decentralization. Findings can be summarized as follows.

First, democratic decentralization shifted the ownership structure from “state ownership without control” to “private ownership without control” in the oil and gas sector and “private ownership with control” in the coal sector. This shift has enabled the government to battle for a stronger fiscal regime: a broad-based tax system with productive and transparent expenditures.

Second, China has capitalized on the duplicated licensing system, obscured property rights, and local corruption that were caused amid the change in ownership structure in order to accelerate open cast mining. The open cast mining results not only in huge profits for Chinese purchasers but also negative influence on quality of livelihood and ecology. It also increases economic influences on major miners that have strong political power to protect their vested interests from policy changes. This makes it difficult for the government to enforce more stringent environmental and social safeguard policies, including the phasing-out of open cast mining, and to shift toward low carbon development.

Third, a series of mining policy reforms that Widodo government has implemented to eradicate illegal mining and to increase government revenue can be evaluated as the right direction to get out of the tradeoff between Western country-induced “foreign controlled mining with manufacturing export” and China-induced “resource-dependent development with trade, social, and environmental deficits.”

Still, there are challenges to ensuring the effectiveness of these policies. In reference to China’s

top-down closure policy, local governments have attempted to revive local mining where it was ordered to be shut down by the central government as a means of boosting their local economy and fiscal revenue. To make the revocation or scrap of local mining effective, it is indispensable to provide alternative means of living for local miners with revoked operating licenses, taking local interest into account.

References

- Adelman D., Carswell, C.J., Beale, P.A. and Barthe-Dejean J. (2015) Update – Indonesia’s new draft Oil & Gas Law, <https://www.reedsmith.com/en-US/UPDATE--Indonesias-New-Draft-Oil--Gas-Law-07-22-2015>, accessed on February 3, 2017.
- Adri, N. (2016) Jokowi to 2,000 mining businesspeople: Evade tax? We’ll catch you, *Jakarta Post*, December 6, 2016.
- Amianti, G.D. (2017a) Government to revoke permits of delinquent miners, *Jakarta Post*, March 8, 2017.
- Amianti, G.D. (2017b) Indonesia tightens watch on regional spending, *Jakarta Post*, January 9, 2017.
- Amirio, D. (2016) Deeply rooted problems hinder private funding of infrastructure, *Jakarta Post*, October 12, 2016.
- Ardiansyah F., Marthen, A.A., and Amalia, N. (2015) Forest and land-use governance in a decentralized Indonesia: A legal and policy review, *Occasional Paper 132*, Bogor: CIFOR.
- Aspinall, C. (2001) Small-scale mining in Indonesia, *Mining, Minerals and Sustainable Development Project*, <http://pubs.iied.org/pdfs/G00725.pdf>, accessed on January 23, 2017.
- Auty, R.M. (2007) Natural resources, capital accumulation and the resource curse, *Ecological Economics* 61, 627-34.
- Bappenas (2015) Public Private Partnership: Infrastructure Projects Plan in Indonesia 2015, Jakarta.
- Bhasin, B. and Venkataramany, S. (2008) Mining law and policy: Replacing the ‘Contract of Work’ system in Indonesia, <http://www.eisourcebook.org/cms/Mining%20Law%20and%20Policy%20Evolution%20in%20Indonesia.pdf#search=%27Mining+law+and+policy%3A+Replacing+the+%E2%80%98Contract+of+Work%E2%80%99+system+in+Indonesia%27>, accessed on January 22, 2017.
- BP (2017) Tangguh LNG, http://www.bp.com/en_id/indonesia/bp-in-indonesia/tangguh-lng.html, accessed on February 14, 2017.
- Brodjonegoro, B. (2001) Indonesian intergovernmental transfer in decentralized era: The case of General Allocation Fund, Presented paper at the *International Symposium on Intergovernmental*

Transfers in Asian Countries: Issues and Practices, Asian Tax and Public Policy Program, Hitotsubashi University.

Brodjonegoro, B. (2004) The Indonesian decentralization after law revision: Toward a better future? Presented paper at the *International Symposium on Fiscal Decentralization in Asia Revisited*, Asian Tax and Public Policy Program, Hitotsubashi University.

Bumi Resources (2012) *1H 2012 Financial Results*, http://www.bumiresources.com/index.php?option=com_financialinfo&task=download&id=357&Itemid=115, accessed on February 22, 2017.

Bumi Resources (2015) *Annual Report 2015*, http://www.bumiresources.com/index.php?option=com_financialinfo&task=download&id=541&Itemid=52, accessed on February 22, 2017.

Burton, B. (2016) Corruption and illegalities in the mining sector in Indonesia: A ranking of 12 provinces involved in Korsup Minerba, *Endcoal*, <http://endcoal.org/2016/02/media-briefing-corruption-and-illegalities-in-the-mining-sector-in-indonesia-a-ranking-of-12-provinces-involved-in-korsup-minerba/>, accessed on July 14, 2016.

Cahyafitri, R. (2014) Tangguh LNG price raised after deal, *Jakarta Post*, July 1, 2014.

Cahyafitri, R. (2015) Revenue target from coal & mineral sector raised, *Jakarta Post*, February 5, 2015.

Cardenal, J.P. and Araujo, H. (2014) *China's Silent Army: The Pioneers Traders Fixers and Workers Who Are Remaking the World*, Penguin.

Coaltrans Conferences (2014) Indonesian government tightens regulatory screws in the coal industry, <http://www.coaltrans.com/articles/3352741/indonesian-government-tightens-regulatory-screws-in-the-coal-industry.html>, accessed on June 1, 2018.

Conner, T., Delaney A. and Rennie S. (2016) *Non-Judicial Mechanisms in Global Footwear and Apparel Supply Chains: Lessons from Workers in Indonesia*, Non-Judicial Redress Mechanisms Report Series 14. Jakarta.

Casson, A. and Obidzinski, K. (2002) From New Order to Regional Autonomy: Shifting dynamics of “illegal” logging in Kalimantan, Indonesia, *World Development* 30, 2133-51.

Down to Earth (2010) Deadly Coal - coal exploitation and Kalimantan's blighted generation, *Down to Earth Newsletter* 85-86, August 2010.

Economy, E.C. and M. Levi (2014) *By All Means Necessary: How China's Resource Quest Is Changing the World*, Oxford: Oxford University Press.

Fiyanto, A. (2014) Devastation from coal mining in South Kalimantan, Indonesia, <http://www.greenpeace.org/international/en/news/Blogs/makingwaves/devastation-from-coal-mi>

ning-in-south-kaliman/blog/51571, accessed on June 22, 2016.

Garnaut, R. (2015) Indonesia's resources Boom in international perspective: Policy dilemmas and options for continued strong growth, *Bulletin of Indonesian Economic Studies*, 51(2), 189-212.

Global Business Guide Indonesia (2014) Indonesia's oil and gas sector – Upstream challenges, http://www.gbgingonesia.com/en/energy/article/2014/indonesia_s_oil_and_gas_sector_upstream_challenges.php, accessed on January 18, 2017.

Greenpeace Southeast Asia (2014) *Coal Mines Polluting South Kalimantan's Water*, [http://www.greenpeace.org/seasia/id/PageFiles/645408/FULL REPORT Coal Mining Polluting South Kalimantan Water_Lowres.pdf](http://www.greenpeace.org/seasia/id/PageFiles/645408/FULL_REPORT_Coal_Mining_Polluting_South_Kalimantan_Water_Lowres.pdf), accessed on June 22, 2016.

Greenpeace Southeast Asia (2016) Indonesian coal market update---Regulatory crackdown on coal mining, *Financial Briefing Update* 22 February 2016, http://www.banktrack.org/manage/ems_files/download/20160222_indonesian_coal_market_update_pdf, accessed on June 22, 2016.

Gylfason, T. (2001) Natural resources, education, and economic development, *European Economic Review* 45: 847-59.

Hervé-Mignucci, M. and Wang X. (2015) Slowing the growth of coal power outside China: The role of Chinese Finance, *A CPI Report*, Climate Policy Initiative.

Hodal, K. (2012) Nike factory to pay \$1m to Indonesian workers for overtime: Shoe plant workers clocked up nearly 600,000 hours of overtime without pay over two years, *The Guardian*, January 12, 2012.

Hong, Z. and Sambodo, M.T (2015) *Indonesia-China Energy and Mineral Ties Broaden*, Singapore: Institute of Southeast Asian Studies.

Indonesia Investments (2016) Coal, <http://www.indonesia-investments.com/business/commodities/coal/item236>, accessed on August 22, 2016.

Human Rights Watch (2013) The dark side of green growth: Human rights impacts of weak governance in Indonesia's forestry sector, <https://www.hrw.org/report/2013/07/15/dark-side-green-growth/human-rights-impacts-weak-governance-indonesias-forestry>, accessed on March 18, 2017.

Indonesian Investments (2014) Weak governance in Indonesian mining sector: Overlapping mining areas, <http://www.indonesia-investments.com/news/todays-headlines/weak-governance-in-indonesian-mining-sector-overlapping-mining-areas/item2114?>, accessed on February 8, 2017.

Indonesia Investments (2015a) *Government in Search of Unpaid Bills*, http://www.indonesia-investments.com/zh_cn/news/todays-headlines/coal-mining-industry-indo

- nesia-government-in-search-of-unpaid-bills/item5892, accessed on January 18, 2017.
- Indonesia Investments (2015b) *Higher royalties for IUP-Holders*, <http://www.indonesia-investments.com/business/business-columns/coal-mining-indonesia-higher-royalties-for-iup-holders/item5195>, accessed on January 18, 2017.
- Indonesia Investments (2017) Tax amnesty program Indonesia, <http://www.indonesia-investments.com/finance/tax-system/tax-amnesty-program/item7124?>, accessed on February 7, 2017.
- Ives, M. (2015) Indonesian coal mining boom is leaving trail of destruction, http://e360.yale.edu/features/indonesian_coal_mining_boom_is_leaving_trail_of_destruction, accessed on January 23, 2017.
- JOGMEC (2016) *A Survey of Coal and Mining Industry in Indonesia*, A Survey Report on Enhancing Exploration of Overseas Coal 2016 (in Japanese).
- Johansyah, M. Agustiorini, S. Sebastian, S. and Maimunah S. (2014) *PT KPC/Bumi Resources Deadly Coal: Ecological and Social Crisis Caused by KPC/Bumi Resources' Coal Production*, JATAM East Kalimantan, http://www.banktrack.org/download/jatam_infosheet_final_20_aug_pdf/jatam_infosheet_final_20_aug.pdf accessed on February 13, 2017.
- Jorde, S. (2013) *Coal and Climate in Kalimantan: Norwegian Interests in Indonesia's Environmentally Damaging Coal Expansion*, Working Paper, Framtiden, <http://www.framtiden.no/rappporter/rappporter-2013/698-report-coal-and-climate-in-kalimantan-2013/file.html>, accessed on August 30, 2016.
- Junita, F. (2015) The foreign mining investment regime in Indonesia: Regulatory risk under resource nationalism policy and how international investment treaties provide protection, *Journal of Energy and Natural Resources Law* 33 (3), 241-65.
- Kanekiyo, K. and Inoue, T. (2006) Current state and challenges of oil and gas in Indonesia, *IEEJ* August 2006, 1-26 (in Japanese).
- Kato, M. (2005) Oil and gas industry in Indonesia: Perspectives and challenges amid liberalization, in Ishida M. (ed.) *Indonesia: Challenges for Revitalization*, Chiba: Institute of Developing Economies, 171-93 (in Japanese).
- Lestari, N.I. (2013) Mineral governance, conflicts and rights: Case studies on the informal mining of gold, tin and Coal in Indonesia, *Bulletin of Indonesian Economic Studies* 49 (2), 239-40.
- Luong, P.J. and Weinthal E. (2010) *Oil Is not a Curse: Ownership Structure and Institutions in Soviet Successor States*, Cambridge: Cambridge University Press.
- Ministry of Energy and Mineral Resources (2016) *Indonesia Mineral and Coal Information 2015*.
- Moestafa, B. (2013) Two million workers strike in Indonesia wage protest, group says, *Bloomberg*,

October 31, 2013.

- Mori, A. (2008) Environmental soft loan program in Asian countries: Industrial pollution control or mul-use of foreign aid resources?, *Journal of Cleaner Production* 16 (5), 612-21.
- Morishita, A. (2016) Political dynamics of foreign-invested development projects in decentralized Indonesia: The case of coal railway projects in Kalimantan, *Southeast Asian Studies* 5 (3), 413-42.
- Patey, L. (2014) *The New Kings of Crude: China, India and the Global Strategies for Oil in Sudan and South Sudan*, UK: C. Hurst & Co. Ltd.
- People's Republic of China and the Republic of Indonesia (2015) Joint Statement on Strengthening Comprehensive Strategic Partnership between the People's Republic of China and the Republic of Indonesia, March 27, 2015.
- Prasetyo, W. (2016) Environmental law in Indonesian: Recent and possible future changes, <http://www.lexology.com/library/detail.aspx?g=916c9632-1fe4-4bea-8827-ca02d05e4650>, accessed on February 13, 2017.
- PT Adaro Indonesia (2014a) Coal Contract of Work (CCoW), <http://www.adaro.com/glossary/coal-contract-of-work-ccow>, accessed on January 22, 2017.
- PT Adaro Indonesia (2014b) *Sustainability Report 2012-13: Delivering Positive Energy Sustainably*, <http://www.adaro.com/pages/read/9/51/Sustainability%20Reports>, accessed on March 18, 2017.
- PT Adaro Indonesia (2017) Adaro awards, <http://www.adaro.com/pages/read/6/20/Award#Awards> for Adaro, accessed on March 18, 2017.
- PT Berau Coal Energy Tbk (2015) Efficiency & Optimization, Performance for Stable Achievement: Annual Report 2014.
- PT Bumi Resources Tbk (2016) Maintaining Growth in a Changing World: Annual Report 2015.
- PwC (2016a) Oil and Gas in Indonesia: Investment and Taxation Guide May 2016-7th edition.
- PwC (2016b) Mining in Indonesia: Investment and Taxation Guide May 2016-8th edition.
- PWYP Indonesia (2016) Coordination and supervision in energy sector, <http://pwyp-indonesia.org/en/activities/advocacy/coordination-and-supervision-in-energy-sector-2>, accessed on January 31, 2017.
- Resosudarmo, I.A.P (2004) Closer to people and trees: Will decentralization work for the people and forest in Indonesia?, *European Journal of Development Research* 16 (1), 110-32.
- Sakamoto, S. (2006) LNG and gas industry in Indonesia: Why they become stagnant, and how they can get out? *Oil and Natural Gas Review* 40 (6), 15-27 (in Japanese).
- Saraswati, M.S. (2005) Mining in protected forests legalized, *Jakarta Post*, July 8, 2005.
- Singgih, V.P. (2017) Adaro wants more power plants to shift core business, *Jakarta Post*, February

10, 2017.

- Spiegel, S.J. (2012) Formalisation policies, informal resource sectors and the de-/re-centralisation of power: Geographies of inequality in Africa and Asia, *Report*, Bogor: CIFOR.
- Suzuki, J. (2016) Local government 'disloyalty' blamed for Indonesia's sudden stall, *Nikkei Asian Review* June 8, 2016, <http://asia.nikkei.com/Politics-Economy/Policy-Politics/Local-government-disloyalty-blamed-for-Indonesia-s-sudden-stall>, accessed on July 14, 2016.
- Suzuki, W. (2015) Indonesian coal producer gets \$1.2B loan from China, *Tambang Batubara Bukit Asam*, March 28, 2015
- Timmerman, A. (2017) Bumi Resources gets nod to raise \$2.6b via rights issue, *Deal Street Asia*, February 7, 2017, <http://www.dealstreetasia.com/stories/indonesia-bumi-resources-gets-nod-to-raise-2-6b-via-rights-issue-64377>, accessed on February 8, 2017.
- Tsing, A. L. (2005) *Friction: An Ethnography of Global Connection*, Princeton University Press.
- Venugopal, V. (2014) Assessing mineral licensing in a decentralized context: The case of Indonesia, *Briefing, Natural Resource Governance Institute*, October 2014.
- Wang, C. and Ducruet, C. (2014) Transport corridors and regional balance in China: The case of coal trade and logistics, *Journal of Transport Geography* 40, 3-16.
- Wibaba, A.A. (2015) Coal Business Is Dim, PTBA Lights Power Plants, <http://www.ptba.co.id/en/detail/index/138/coal-business-is-dim-ptba-lights-power-plants>, accessed on March 13, 2017.
- World Bank (2014) *Indonesia Economic Quarterly March 2014 - Investment in Flux*, <http://www.worldbank.org/content/dam/Worldbank/document/EAP/Indonesia/IEQ-March2014-english.pdf>, accessed on July 12, 2016.
- World Bank (2015) *Indonesia Economic Quarterly March 2015 - High Expectations*, <http://www.worldbank.org/content/dam/Worldbank/document/EAP/Indonesia/IEQ-MAR-2015-EN.pdf>, accessed on July 12, 2016.
- Yusuf, A.A. and Resosudarmo, B.P. (2014) Is reducing subsidies on vehicle fuel equitable? A lessons from Indonesian reform experience, in Sterner, T. (ed.) *Fuel Taxes and the Poor: The Distributional Effects of Gasoline Taxation and Their Implications for Climate Policy*, Oxon: RFF Press, 171-80.

[Note]

¹ Security of tenure empowers the investor to obtain proceeds from a general survey through exploration all the way through mine development, production, processing, and marketing. Security of investment is an assurance that there will be no effect on the investment from changes in government laws or policies after signing for the period in force.

² Almost half of the 750 oil and gas exploration wells drilled between 2002 and 2012 were dry, leading to a surrender of blocks following fruitless exploration in recent years (Global Business Guide Indonesia 2014).

³ In 2016, Chevron Pacific Indonesia shares 35 percent of national crude oil output, followed by Mobile at 23 percent and Pertamina at 15 percent. CNOOC SES and Petro China share 4 and 2 percent, respectively. In gas output, Total shares 26 percent, followed by ConocoPhillips at 22 percent, BP at 18 percent and Pertamina at 17 percent (PwC 2016a).

⁴ These provisions are described in the draft revision to the Oil and Gas Law of 2001. The draft, however, raises concerns about too much strong power given to Pertamina, and less pragmatic and more susceptible issuance and administration of PSAs to parliamentary lobbying and resource nationalism (PwC 2016a), prolonging discussion in parliament.

⁵ More than 170 exploration projects had been either suspended, withdrawn, or rendered inactive, and only 12 of the 268 CoWs were in operation by 2000.

⁶ This requires a reduction of foreign ownership of up to 49 percent after ten years of operation. While the government reduced the requirement by 60 or 70 percent and extended the period of divestment by GR 77/2014, it was reversed to the original requirement by GR 1/2017.

⁷ The CoW covers all tax, royalties, and other fiscal charges, including: dead rent in the contract area, production royalties, income tax payable by the company, employees' personal income tax, withholding taxes on dividends, land and building tax, regional taxes and retributions, and so on (PWC 2016b).

⁸ In 2015, nearly 67 percent of 542 regions nationwide failed to spend 25 percent of their budget to spur infrastructure development (Amianti 2017b).

⁹ This resulted in it taking eight years for Exxon Mobile to start operation at Cepu oil bloc.

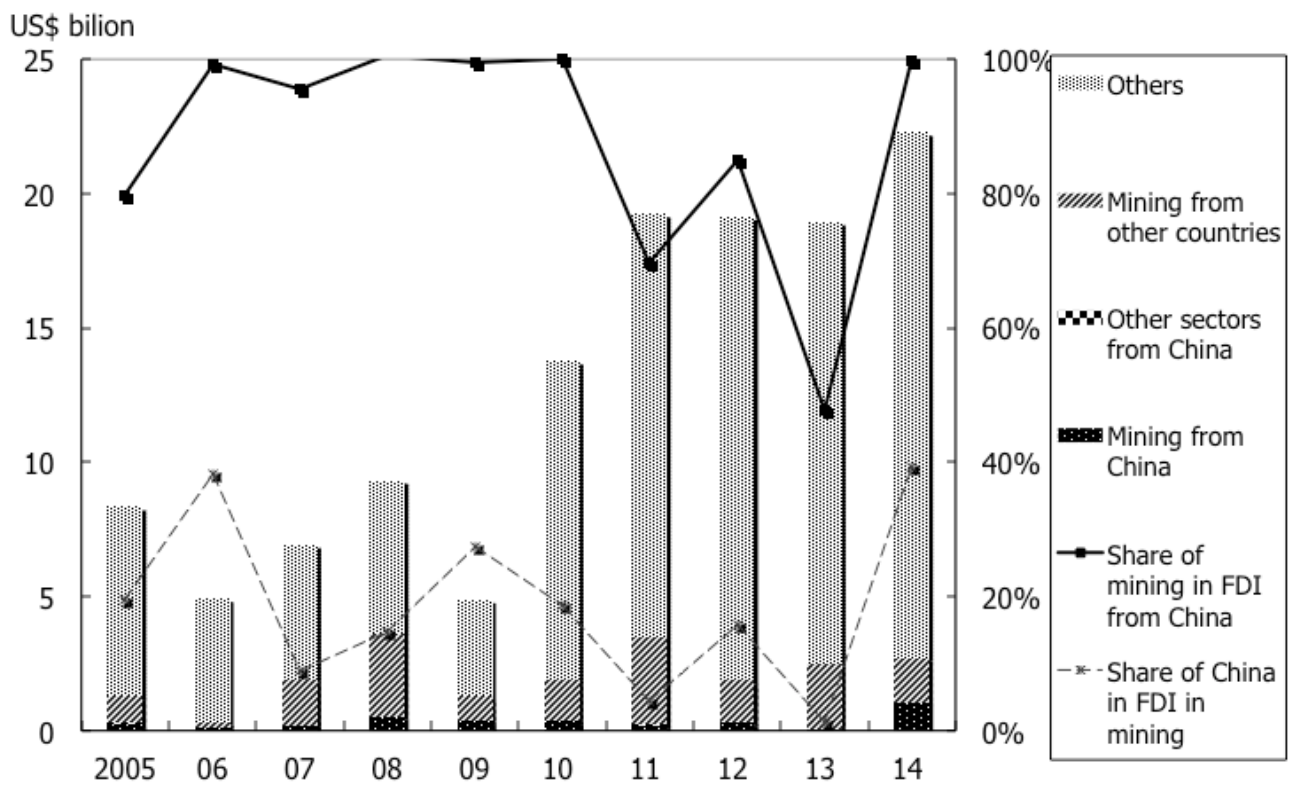


Figure 10.1 FDI from mining sector from China to Indonesia
 Source: Author compiled based on Hong and Sambodo (2015: 6).

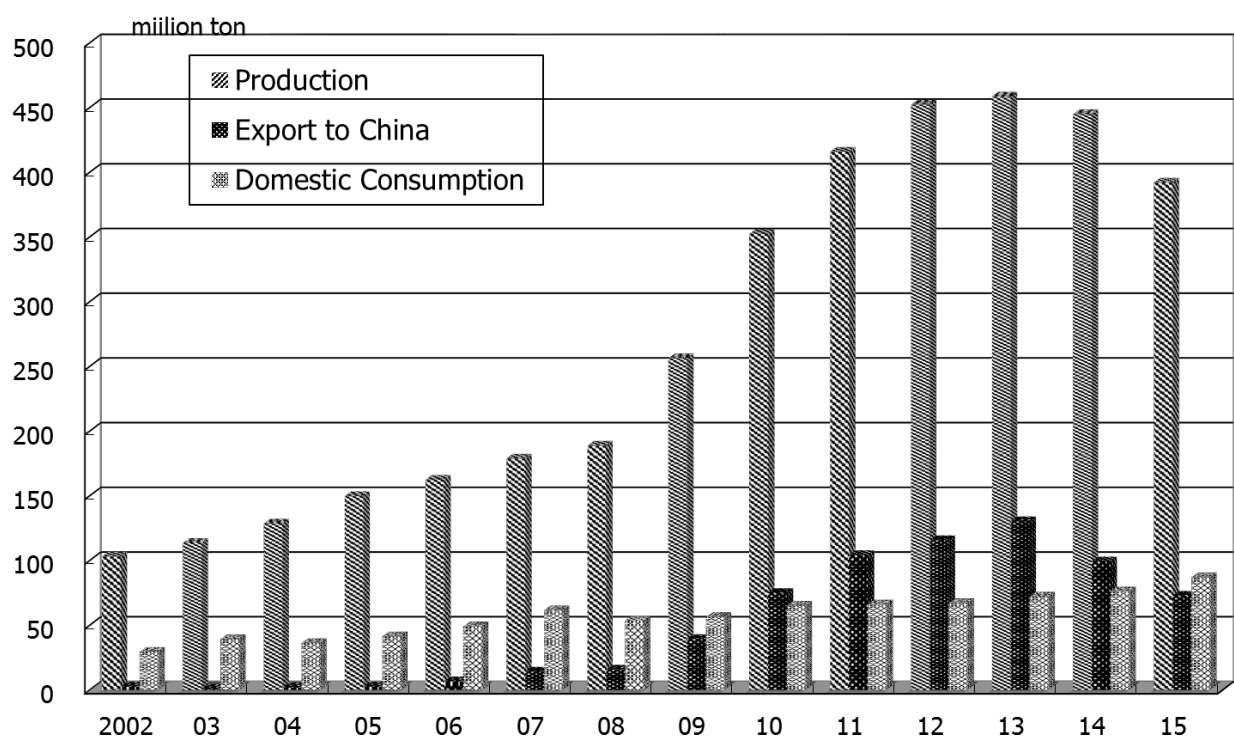


Figure 10.2 Indonesian coal production, domestic consumption and export to China

Source: Author compilation based on *Statistik Indonesia*, each year.

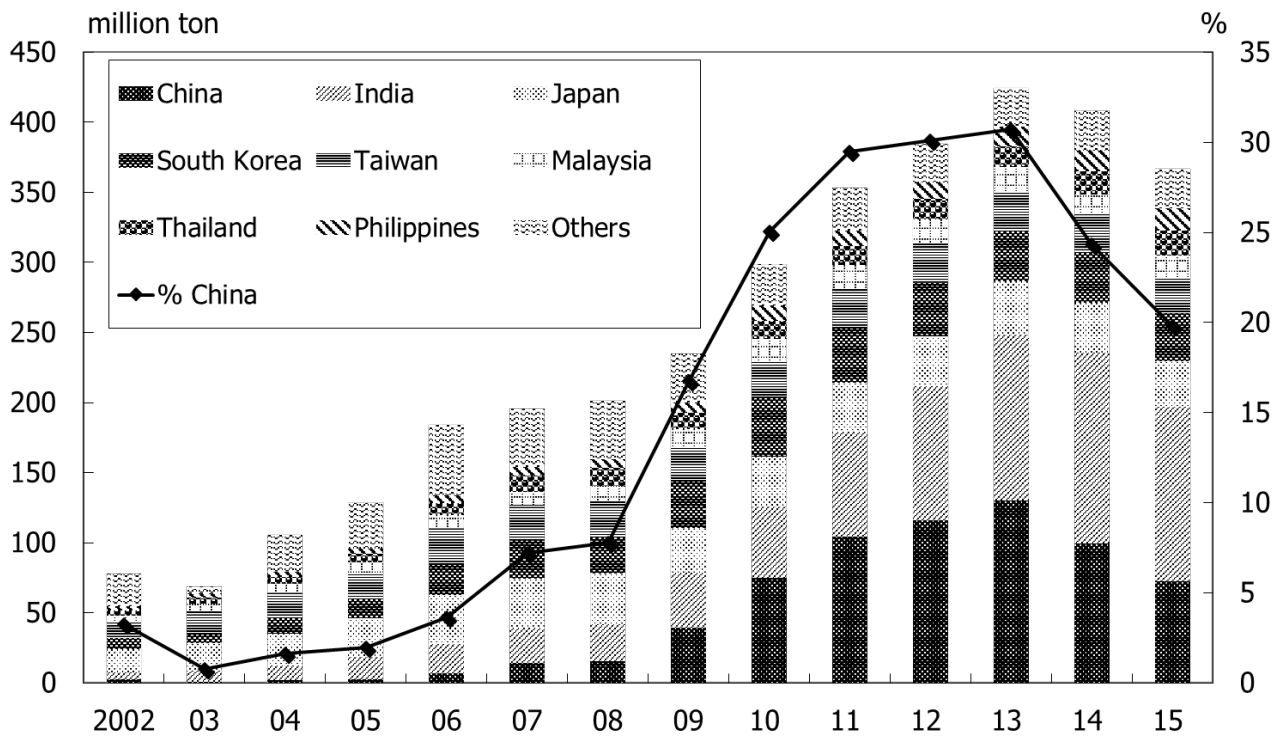


Figure 10.3 Indonesian coal export by importer

Source: Author compilation based on *Statistik Indonesia*, each year.

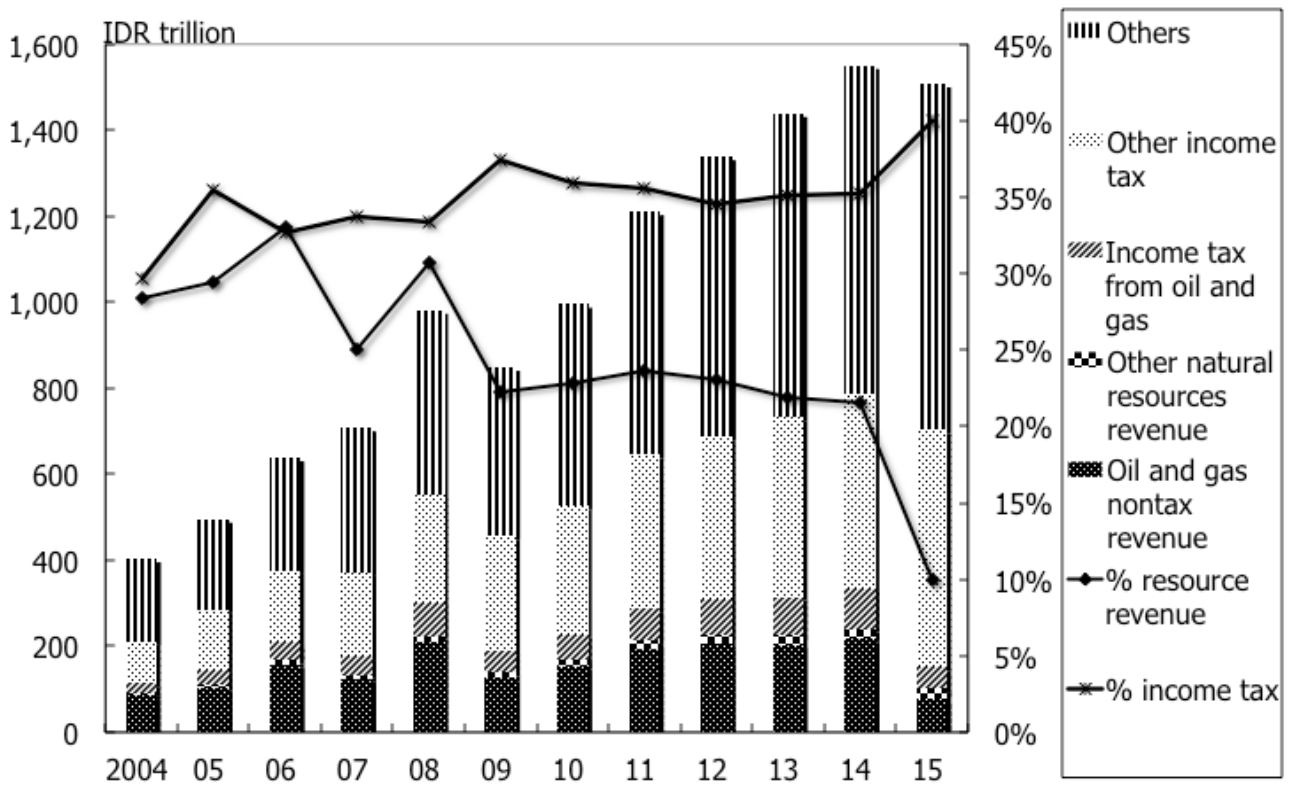


Figure 10.4 Government revenue by source 2004-15

Source: Republic of Indonesia, *Laporan Keuangan Pemerintah Pusa Audite (Audited Statement of Government Fiscal Accounts)*, each year.

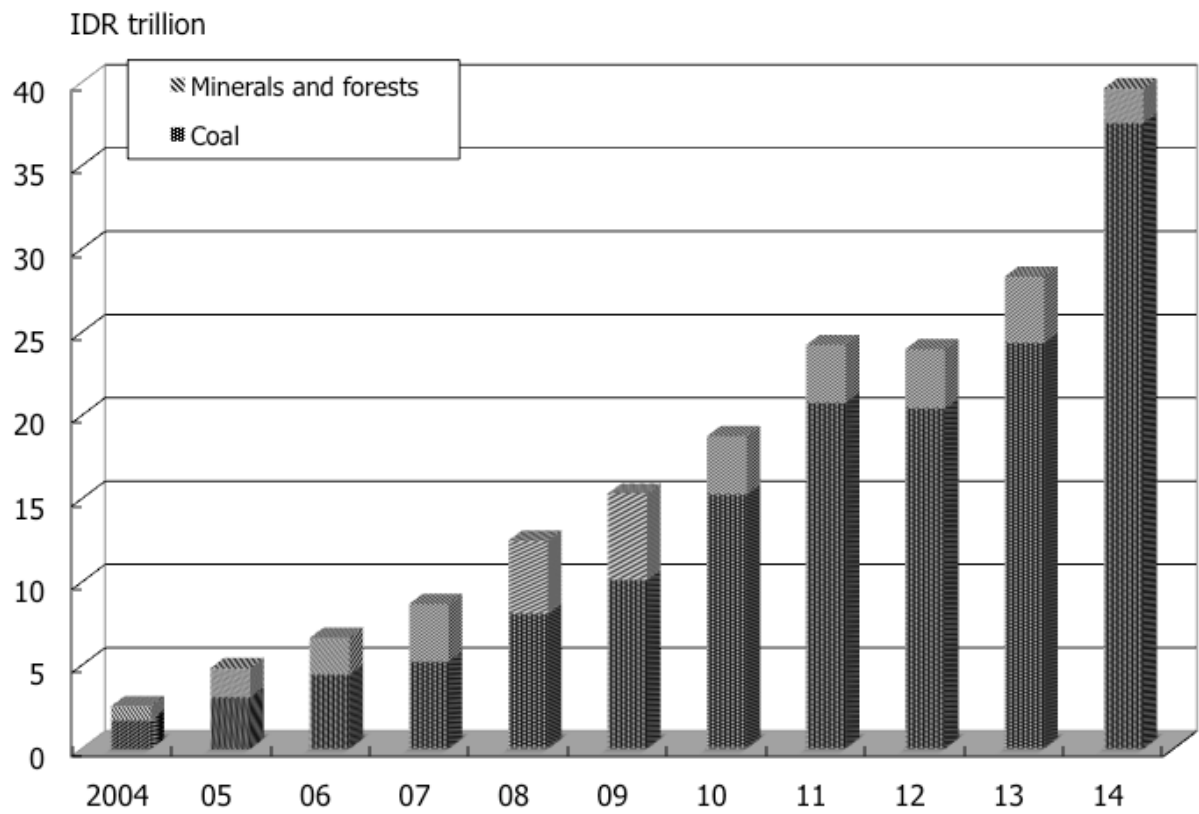


Figure 10.5 Government revenue from minerals and forests 2004-15

Source: Republic of Indonesia, *Laporan Keuangan Pemerintah Pusa Audite (Audited Statement of Government Fiscal Accounts)*, each year.

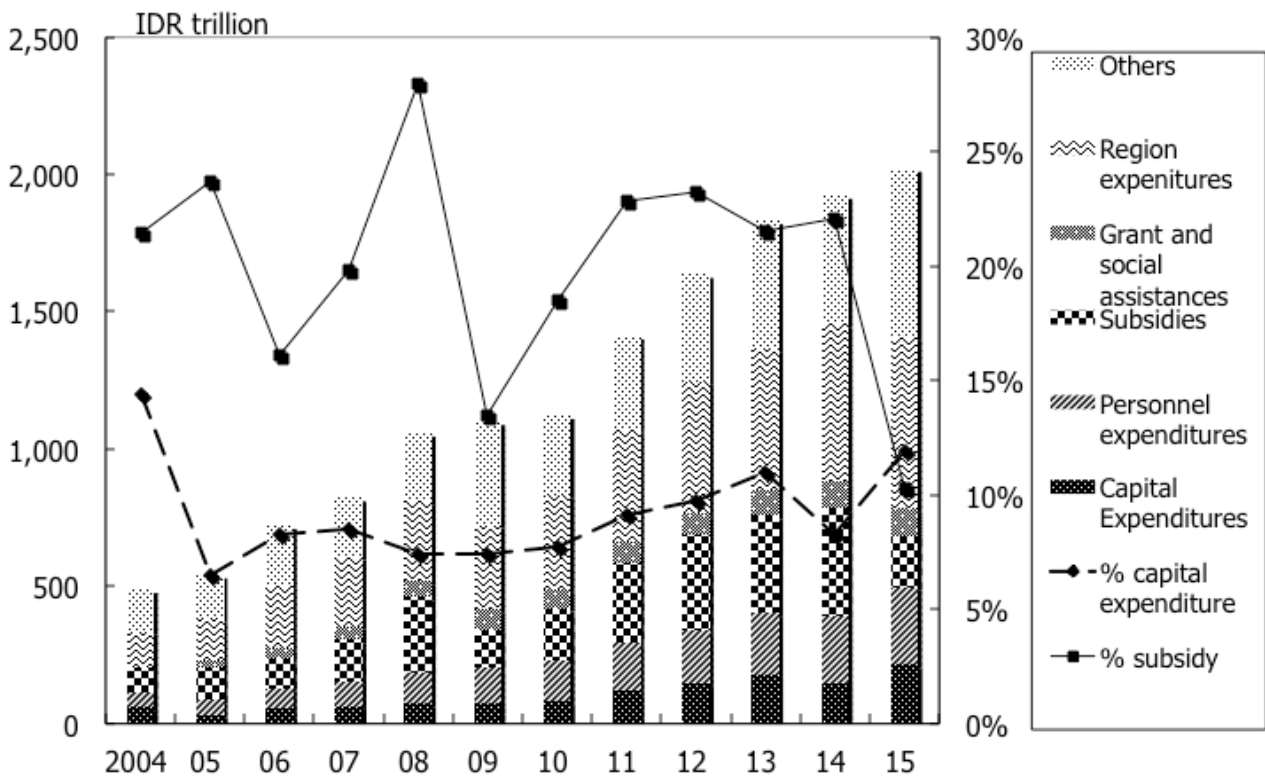


Figure 10.6 Government expenditure by type 2004-15

Source: Republic of Indonesia, *Laporan Keuangan Pemerintah Pusa Audite (Audited Statement of Government Fiscal Accounts)*, each year.

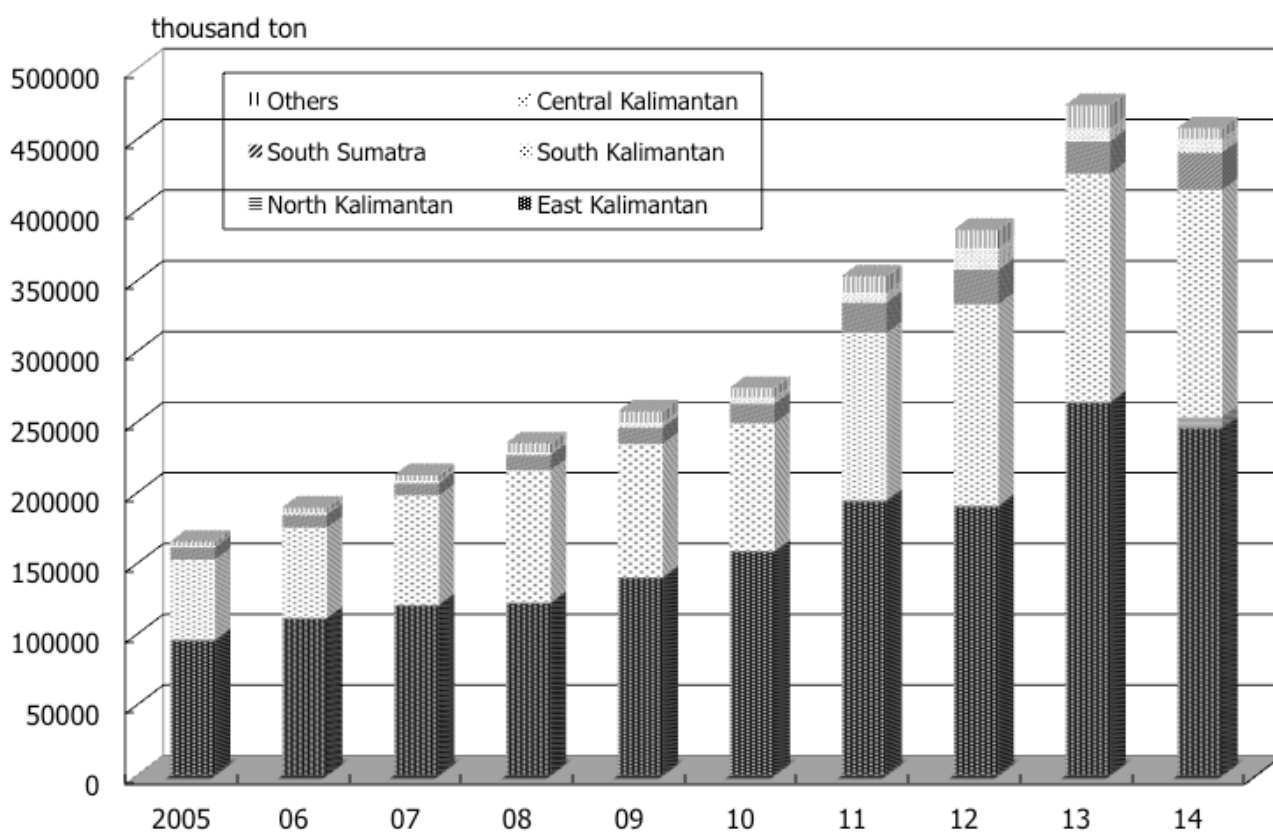


Figure 10.7 Coal production by province

Source: Author compilation based on Ministry of Energy and Mineral Resources (2016) and JOGMEC (2016).

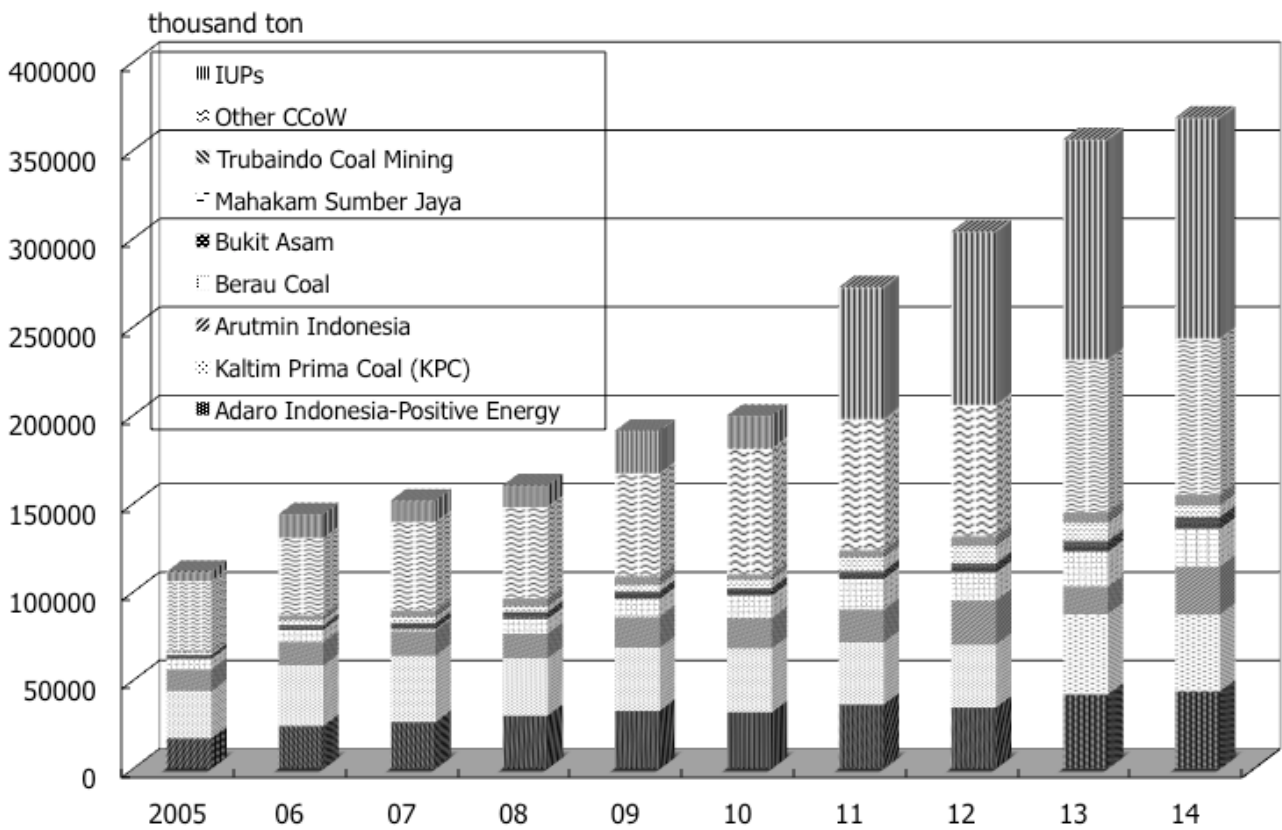


Figure 10.8 Coal export by company

Source: Author compilation based on Ministry of Energy and Mineral Resources (2016) and JOGMEC (2016).

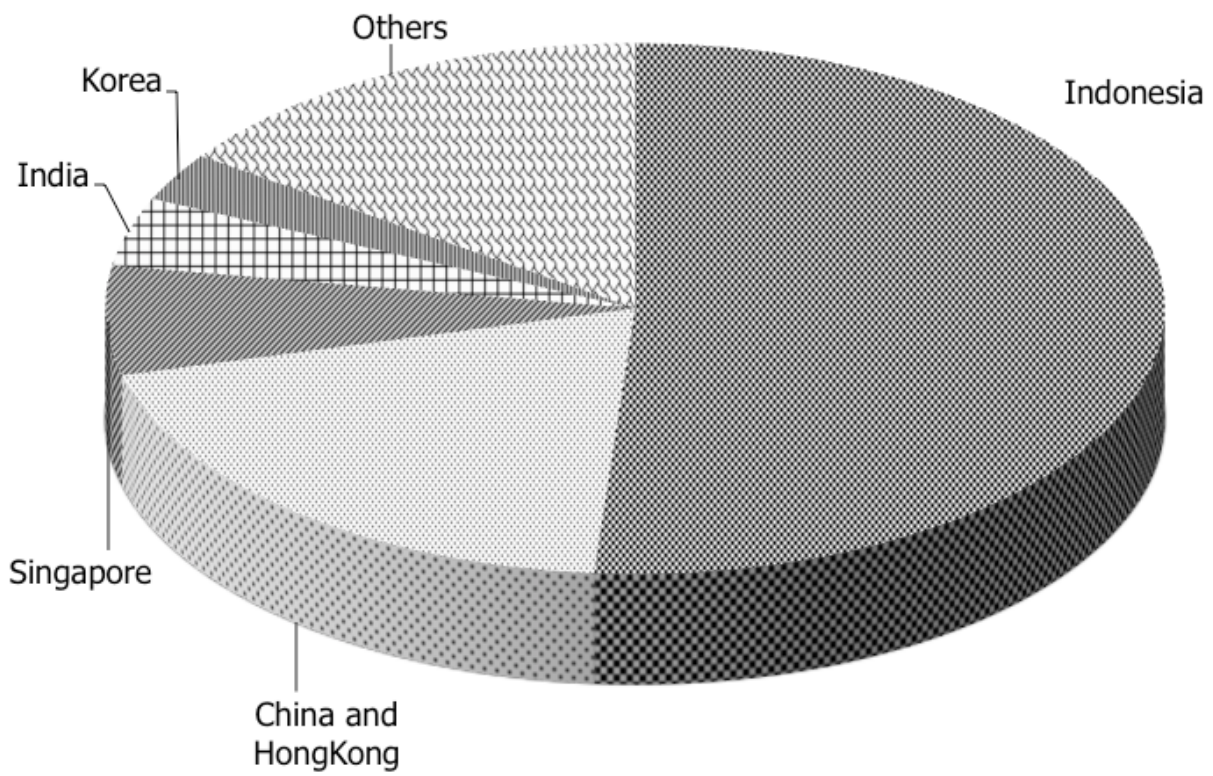


Figure 10.9 Sales destinations of IUP holders in 2015

Source: Author compiled based on Ministry of Energy and Mineral Resources (2016).

Table 10.1 Revenue sharing among central, provincial and local governments before and after the decentralization

Revenue shared sources	Before decentralization					Law No. 25 of 1999					Law No. 33 of 2004				
	CG	PG	LGs of origin	Other LGs in same Prov.	All LGs	CG	PG	LGs of origin	Other LGs in same Prov.	All LGs	CG	PG	LGs of origin	Other LGs in same Prov.	All LGs
Personal income tax	100	-	-	-	-	80	8	12	-	-	80	8	12	-	-
Property tax	10	16.2	64.8	10-	-	9	16.2	64.8	10	-	9	16.2	64.8	-	10
Land and building transfer fee	20	16	64	-	-	-	16	64	-	20	-	16	64	-	20
Forestry: land rent	55	30	15	-	-	20	16	64	-	-	20	16	64	-	-
Forestry: resource rent	55	30	15	-	-	20	16	32	32	-	20	16	32	32	-
Forestry: reforestation	-	-	-	-	-	-	-	-	-	-	60	-	40	-	-
Mining: land rent	20	16	64	-	-	20	16	64	-	-	20	16	64	-	-
Mining: royalty	20	16	64	-	-	20	16	32	32	-	20	16	32	32	-
Fishery	100	-	-	-	-	20	-	-	-	80	20	-	-	-	80
Oil	100	-	-	-	-	85	3	6	6	-	84.5	3	6	6	-
												0.1 ^a	0.2 ^a	0.2 ^a	

Gas	100	-	-	-	-	70	6	12	6	-	69.5	6	12	6	-
												0.1 ^a	0.2 ^a	0.2 ^a	
Geothermal energy	-	-	-	-	-	-	-	-	-	-	20	16	32	32	-

Note: CG = Central government, PG = Provincial government, LGs = Local governments (regencies and municipalities).

a: 0.5% of the revenue sharing from oil and gas is allocated to provinces and local governments as an additional fund for education (earmarked grant).

Source: Ardiansyah, Marthen and Amalia (2015: 38).

Table 10.2 Local government revenue and expenditure by category

		2005-08	2009-13	2014-15
Original tax revenue				
	East Kalimantan	5%	6%	9%
	South Kalimantan	7%	7%	10%
	South Sumatra	4%	6%	9%
	Throughout Indonesia	7%	9%	13%
Tax share				
	East Kalimantan	21%	9%	8%
	South Kalimantan	10%	5%	4%
	South Sumatra	13%	11%	9%
	Throughout Indonesia	9%	7%	4%
Nontax natural resources				
	East Kalimantan	47%	54%	52%
	South Kalimantan	8%	20%	18%
	South Sumatra	23%	24%	23%
	Throughout Indonesia	9%	9%	8%
General allocation funds				
	East Kalimantan	15%	13%	13%
	South Kalimantan	60%	46%	45%
	South Sumatra	49%	42%	41%
	Throughout Indonesia	60%	53%	51%
Personnel expenditure				
	East Kalimantan	25%	30%	31%
	South Kalimantan	43%	49%	44%
	South Sumatra	37%	44%	41%
	Throughout Indonesia	44%	50%	48%
Subsidies, grants and aid				
	East Kalimantan	7%	6%	4%
	South Kalimantan	6%	3%	2%
	South Sumatra	4%	3%	2%
	Throughout Indonesia	5%	5%	3%
Capital expenditure				
	East Kalimantan	46%	40%	40%

	South Kalimantan	31%	27%	28%
	South Sumatra	39%	31%	30%
	Throughout Indonesia	30%	23%	24%

Source: Author compilation based on *Financial Statistics of Regency/Municipality Government*, each year.

Table 10.3 Environmental and CSR program of major Coalmines

	Adaro Indonesia	Bumi Resources	Berau
ISO 14001	Obtained	Obtained (KPC, Arutmin)	Obtained
PROPER	Green (2006/7, 2009, 2010/11, 2015)	Green (KPC, 2014/15) Blue (Arutmin 2014/15)	Green (Binungan and Sambarata, 2014, Provincial level) Gold (Lati, 2014, Provincial level)
Awards	Aditama (gold) for environmental management (2013)	Culture-Based Community Empowerment (Arutmin, 2015) Aditama (KPC, 2014) Mining Environmental Management (First Prize, Arutmin, 2014)	Aditama (silver) for environmental management (2013/14)
Mine Water Management	Settling pond	Sedimentation pond with dredgers and dump drainage rehabilitation	-
Reclamation	Planting commercial crops and shrubs in reclamation area	Plant growing and community-based eco-tourism in the reclaimed land (KPC)	Cumulatively re-vegetated 3055 ha out of 9650 ha disturbed land by 2014
Biodiversity	Post-mining rehabilitation	Conservation farming at Kutai National Park; Mangrove-based coastal preservation	-
Community Development program	Community rubber plantation; Clean water access; Community business	Community-based waste bank; Empowerment of resettled community	Village electrification; Post resettlement community program

Source: Author compilation based on PT Adaro Indonesia (2014b, 2017), PT Berau Coal Energy Tbk (2015) and PT Bumi Resources Tbk (2016).