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Mining and environmental protection in Indonesia: regulatory pitfalls

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Exploring the regulatory framework for mining licence issuance in Indonesia: A historical perspective

2.1 INTRODUCTION

This chapter shows how law, regulation, and policy related to mining licence issuance and environmental problems have influenced each other, from the colonial period until the enactment of Law 4/2009 on Mineral and Coal Mining (Mining Law 4/2009). The historical background will provide a certain understanding of how law, regulation and policy responds to the environmental problems connected with mining licence issuance, including in the present. The chapter also examines the regulatory framework for mining licence issuance, and the resulting environmental problems throughout its history. This includes how regulatory frameworks have contributed to an increase in environmental problems, and how subsequent law, regulation and policy have responded to these problems.

This chapter consists of the following six sections. After the current section, the second provides a description of the regulatory framework during the colonial period; a period when mining law was first issued, environmental impacts were not being considered, and regulations related to the environment did not regulate mining. The third section describes the situation during the early days of independence, when President Sukarno's nationalist policy influenced the mining industry. The fourth section discusses the economic policy during the New Order period, which stimulated the growth of the mining industry through mining contracts and licensing schemes, and the impact that this policy had on the environment. The fifth section discusses the reform period, when the policy of decentralisation affected the conditions for mining licence issuance and the environment. The final part of the fifth section discusses the environment-related mining licence issuance problems related to, which were inherited from the previous period and exacerbated at the beginning of decentralisation. The sixth section provides the conclusion.

2.2 THE COLONIAL PERIOD (1850-1945)

Indonesia has been a producer of mined metal (especially gold and silver) and precious stones (such as diamonds) for many centuries, but until the mid-19th century its mining activities had been modest (Eng, 2014: 4). Following the discovery of tin on Belitung Island in 1852, the Indonesian

mining industry began to develop in earnest (Eng, 2014: 5). At the time, mining was carried out by a firm named NV Billiton Maatschappij, assisted by a concession granted by the Dutch East Indies Government (Eng, 2014: 5; Hayati, 2015: 24). Furthermore, mineral reserve research and applications for mineral exploration licences were both increasing, alongside an increase in worldwide demand for minerals; therefore, mining could help meet the financial needs of the government in the Dutch East Indies (Setiawan, 2015: 302). In the end, this led the government to issue the Mining Law, *Indische Mijnwet* 1899 (IMW) (Setiawan, 2015: 302).

IMW regulated the authority and mechanisms for the management of mineral, oil and gas, including the regulation of land owners and licensing rights. The land owners could not control the minerals which were located within their land, because the colonial government had the authority to control the minerals (Article 1). The right to seek mining was granted by the colonial government, through a centralised concession system. Concession was granted in the form of a licence, which gave a mining company a number of rights to manage its mining and freely use any mines obtained during the exploitation solely for the benefit of the company (Article 16). The government collected a fixed annual fee from each concession: a net contribution of 0.25 guilders per hectare, and 4% of the gross income (Article 35).

IMW restricted the entry of foreign companies into the Indonesian mining industry through its complex requirements for obtaining concessions (Setiawan, 2015: 303-304). Only Dutch people, residents of the Netherlands or the Dutch East Indies, and companies established in the Netherlands or the Dutch East Indies could obtain concessions (Article 4). In fact, most foreign companies which operated in the Dutch East Indies at the time were registered in their home countries, as most of the company owners were not Dutch (Setiawan, 2015: 303-304). Based on the IMW rule, these foreign companies cannot be granted concessions. The policy restricting entry by foreign companies was made because, at that time, Dutch mining companies were still unable to compete with wealthier foreign companies, so if foreign companies had been free to invest their capital without restriction, they would have eventually dominated the Dutch East Indies mining area (Setiawan, 2015: 301).

IMW was amended in 1910. One of the amendments included the issuance of Article 5A, which allowed private companies to negotiate a mining contract directly with the Dutch Government, instead of going through the process of obtaining a concession (Hayati, 2015: 25). The policy was based on the idea that the government should maintain maximum control over mining businesses, but that the expertise of private companies was nevertheless required to manage and operate such businesses (Eng, 2014: 15). The contract system was also expected to provide better returns for the gov-

ernment than the concession system, because the government could make the terms in the contract quite stringent, in order to maximise government benefit from mining operations (Eng, 2014: 15).

Whereas economic considerations were a priority in policy-making, environmental impacts were ignored, even though environmental damage due to mining activities existed at the time. For example, in 1870 a medical officer stated that tin mining activities in Bangka had caused forest destruction and the neglect of large areas of land (Ross, 2014: 460). IMW did not regulate the environmental requirements for gaining concessions or contracts. Some restrictions on mining activities were intended only to ensure human safety and prevent the disturbance of communities. IMW prohibited certain areas for mining for public interest reasons only, such as the presence of military and government buildings or graves, public roads, canals, railroads, areas considered by indigenous peoples to be sacred, residential houses or standing factories, or because the land surrounded residential houses or factories, and mining needed to happen at a minimum distance determined by regulation (Article 8). Hence, in certain areas, there was no prohibition on mining for reasons of environmental protection. The supervision regulated in IMW also related only to human interest, such as: the safety of the soul and health of workers; the protection of topsoil to keep people and public traffic safe; and protection against the generally harmful effects of mining (Article 43). Companies were obliged to pay full compensation for any damage caused (Article 24).

There were some regulations regarding natural resources and the environment at the time, but nothing related to mining. One regulation, *Hinder Ordonnantie, Staatsblad 1926, Number 226* (Nuisance Ordinance), regarding «*inrichting*», was closely related to environmental licensing. However, it was intended to regulate licences for industries that had the potential to disturb surrounding neighbours, and mining activities were always carried out in areas a long distance from residential dwellings. Other regulations, concerning the protection and preservation of nature, were not related to mining¹. Therefore, for many years the remote location of the mines and the economic requirements of the colonial coffers allowed companies to operate with little regard for the damage they were inflicting (Ross, 2014: 466). Until the end of the Dutch colonial period, there were no regulations responding to the specific environmental impact of mining activities.

1 For example, 1931 *Dierenbeschermings Ordonnantie, Staatsblad 1931, Number 134*; 1941 *Natuurbeschermings Ordonnantie, Staatsblad 1941, Number 167*; 1932 *Natuurmonumenten en Wildreservaten Ordonnantie, Staatsblad 1932, Number 17*, which was replaced by 1941 *Natuurbeschermings Ordonnantie*; 1931 *Jacht Ordonnantie, Staatsblad 1931, Number 133*; and, 1940 *Jacht Ordonnantie Java en Madoera, Staatsblad 1939, Number 733* (Hardjasoemantri, 1996; Rangkuti, 2005).

In 1942 the Dutch colonial period ended and was replaced by the Japanese occupation. During Japanese occupation no new laws regarding mining and the environment were made, but the mining industry was still running. Even though mining activities stopped during the early days of Japanese occupation, due to war damage, the Japanese government later realised the importance of mining to support their war costs, and it duly invested in mining (Isma, 2018: 66). The mining industry itself continued to develop and, even during the three years of Japanese occupation which ended in 1945, several new mining activities were developed by the Japanese government, including for copper, iron ore, cinnabar, manganese ore, and bauxite.² Meanwhile, no improvements in the attention given to the environment had been made since colonial times.

2.3 THE OLD ORDER PERIOD (1945-1965)

In the early days of independence, anti-colonialism and anti-western attitudes affected all aspects of policy in Indonesia. At the end of the 1950s, Sukarno refused foreign aid and nationalised key industries owned by the Dutch and other Western companies (Gellert, 2010: 39). The government issued Law 86/1958 on the Nationalisation of Dutch-Owned Companies in Indonesia, and its implementing regulations: Government Regulation 2/1959 on Implementation of the Law on Nationalisation the Dutch-Owned Companies, and Government Regulation 3/1959 on Establishment of the Nationalization Agency for Dutch Companies.

Specific to the mining sector, the government issued Law 10/1959 on Cancellation of Mining Rights and Government Regulation 50/1959 on the Determination of Dutch-owned Industrial/Mining Companies Subject to Nationalisation. Mining concessions and contracts issued under the IMW were rearranged. Law 10/1959 annulled all mining rights granted before 1949 which had not yet been worked on, or for which work was still at an early stage (Article 1). The nationalistic approach was therefore apparent in the contemporary policy. A cancellation of mining rights could only be made by the Minister of Industry for national interest reasons, if the concessions and contracts carried out exploration and exploitation of petroleum, in order to secure domestic consumption, or for foreign exchange needs (Article 3).

In 1960, a new mining law was issued: Government Regulation in Lieu of Law (*Perpu*) 37/1960 on Mining. An important element of this *perpu* was that it prevented foreign investors from entering the mining industry. The *perpu* replaced the concession regulated by IMW with a 'mining authority'

2 <https://www.walhi.or.id/sejarah-dan-regulasi-pertambangan-di-indonesia-bagian-2>.

(*Kuasa Pertambangan*, or KP). The company and/or individual mining rights that already existed under the IMW could remain valid for a certain period of time, and the holders of the rights had to conform to the provisions contained in the *perpu* (Article 30). The KP and the concession were the same form of mining licence, in which the government gave the right to mine to entities or individuals and collected a fixed fee from them. The only difference was that the concession was intended for Dutch people, residents of the Netherlands or the Netherlands East Indies, and companies established in the Netherlands or the Dutch East Indies, whilst the KP was intended for Indonesian state and regional companies, Indonesian private companies, and Indonesian citizens residing in Indonesia (Articles 4 and 5). Hence, the rules in *Perpu 37/1960*, stating that KP would not be given to foreign investors, seemed to follow the rules regarding restrictions on foreign investors obtaining concessions in IMW.

During the Sukarno administration, mining production and exports continued and the mining industry was dominated by state-owned enterprises (Eng, 2014: 8-10). Attention paid to the environment in this period was no better than during the previous period. Neither *Perpu 37/1960*, nor any other law or regulation created protection from mining activities for the environment. Similar to IMW, *Perpu 37/1960* only prohibited certain areas for mining, because of potential interference with the interests of other parties, such as cemeteries, places that considered sacred, public works, mining business offices, residential houses, etc. (Article 12). Hence, during the Old Order period, law and regulation stayed focussed on mining exploitation, the only difference from the previous period being that the approach in this period was more nationalistic.

2.4 THE NEW ORDER PERIOD (1966-1998)

The relationship between the mining licensing process and the environment during the 32 years of Suharto's presidency is complex. Several mining licensing policies were issued and, in addition to being different from the previous period, policies regarding the environment and natural resources also affected the issuance of mining licences. However, although the environmental and natural resources policies were interrelated, they were not actually coordinated. The implementation of the policies was even more complicated. Therefore, to explain the dynamics of the mining licence issuance policies in relation to the environment, this section is divided into several sub-sections, consisting of: mining-related laws that were issued to promote economic growth; mining contracts; the mining sector starting to give attention to the environment; restricted areas for mining; and the environmental impact of mining licence issuance policies and their implementation.

Mining-related laws and regulations to promote economic growth

After economic growth stagnated during the Sukarno administration, the policy of the Suharto government was to increase economic growth, mainly through the use of natural resources. To this end, President Suharto's New Order government created a completely new regime for mining (Spiegel, 2012: 190). The policy began with the issuance of the Resolution of the Temporary People's Consultative Assembly (MPRS) XXIII/1966 on Policy Reform on the Basis of Economy, Finance and Development, which contained a stipulation to increase the industry's attractiveness through foreign investment. Based on the resolution, Law 1/1967 on Foreign Investment, Law 1/1968 on Domestic Investment, and Law 11/1967 on Basic Mining Provisions (Mining Law 11/1967) were issued. The laws were intended to accelerate economic growth and resolve the economic problems inherited from the Old Order, by opening Indonesia up to foreign capital (Gandataruna & Haymon, 2011: 221). This was the beginning of massive development of the mining industry in Indonesia.

Mining licensing in Mining Law 11/1967 was carried out centrally, and the authority for doing so was held by the Minister of Mining, especially for the types of mines which were categorised as 'vital' and 'strategic' (class A and class B). The management of class C mining types, such as sand and gravel mines, was entrusted to provincial level governors. Mining Law 11/1967 provided mining rights to various parties via two schemes. The first was KP which, in general, was the same as KP regulated in *Perpu 37/1960*, as explained above: a form of licence granted to domestic mining companies or individuals with Indonesian citizenship. The second was the 'work agreement', which became known as *Kontrak Karya* or the Contract of Work (CoW). It was granted to foreign investors to carry out all phases of mining operations, including exploration, pre-production development, production, and mine closure. This was different from KP, which was granted for one stage of mining activity only.

In 1981 the rules regarding contracts for coal mining were differentiated from other types of mining. The coal mining contract was specifically regulated through Presidential Decree 49/1981 on Basic Provisions for the Coal Mining Exploitation Cooperation Agreement and subsequently regulated by the Presidential Decree 75/1996 on Main Provisions of the Coal Mining Exploitation Work Agreement. Initially, the coal mining contract was called the Coal Cooperation Contract (*Kontrak Kerja Sama Batubara* or *KKS Batubara*), but this was later changed to *Perjanjian Karya Pengusahaan Pertambangan Batubara* (PKP2B) or Coal Contracts of Work (CCoW). The main difference between the CCoW and the CoW was that for CCoW a fixed fee, royalties and Coal Sales Profit Sharing Funds (*Dana Bagi Hasil Penjualan Batubara*, or DHPB) had to be paid to the government, whilst the CoW only required a fixed fee and royalties to be paid to the government.

Mining development in Indonesia in 1967 was mostly focussed on supporting economic growth; there were basically no regulations to protect the environment (World Bank, 2001: 72). Hence, Mining Law 11/1967 almost did not regulate environmental protection, and the mining rights granted via KP and contracts were issued without environmental stipulations. The only provision related to the environment was stated in Article 30: that if mining was carried out in a workplace, the KP holder concerned would be obliged to return the land in such a way that it did not pose any danger of disease or other dangers to the surrounding community.

The Mining Contract of Work

Article 10 of Mining Law 11/1967 stipulated that if the government itself was not able to carry out certain mining activities, the government could appoint contractors to do so instead. This was supported by Law 1/1967 which stipulated that foreign investment in the mining sector was based on cooperation with the government, on the basis of either a work contract or another form of agreement in accordance with statutory regulations (Article 8, paragraph 1). These provisions became the basis for foreign investors to enter into mining agreements with the Indonesian government. The first foreign company to sign a CoW with the Indonesian government was an American mining company, Freeport McMoRan, which covered a large area of the Ertsberg gold deposit in the Jayawijaya Mountains in Irian Jaya (O'Callaghan, 2010: 220).

A CoW was very profitable for mining companies, because the contract scheme covered all phases of a mining operation. The other benefit for mining companies was that a CoW protected them from future government policies (also known as *lex specialis*), meaning that the contract was immune to legal changes (Wiriosudarmo, 2001: 20; IMI, 2018: 21). This was very advantageous, because exploitation of these mineral resources could last a long time. Based on Mining Law 11/1967, mining operations managed by foreign companies through a contract system were valid for 35 years and could be extended for up to 25 years, bringing the total longevity to 60 years. Therefore, if there were to be environmental policy in future, it would not affect a CoW. In the case of Freeport for instance, the very first CoW granted did not contain an environmental clause (O'Callaghan, 2010: 220). As explained above, at the time there was still no attention being paid to the environment. Furthermore, the government, which at that time was threatened by an economic recession, was in a bad bargaining position, resulting in contracts with very attractive terms for the company (Warburton, 2017: 293). However, subsequent contracts did not include environmental assessments (Robinson, 2016: 144). Indonesia did not even require foreign companies to provide mine closure plans in their CoW, which could force companies to think more carefully about the impact of their activities on the environment (Robinson, 2016: 146).

The mining sector starts to pay attention to the environment

Indonesia did not pay attention to the environment in any capacity, not only in the mining sector, until there was global pressure to pay attention to every activity that had the potential to have an impact on it. After the Stockholm Conference in 1972, the environment became a concern on a global scale (Hardjasoemantri 1996: 4; Niessen, 2003: 72). Indonesia issued several policies related to environmental protection, including in the mining sector. In 1977 the government issued Minister of Mining Decree 4/1977 on the Prevention and Handling of Disturbance and Pollution of the Environment Caused by General Mining. This decree was regulated in more detail by Director General of General Mining Decree 07/DU/1978 on the Prevention and Control of Disturbance and Pollution as a Result of Open Mining, and Director General of General Mining Decree 09/DU/1978 on the Prevention and Countermeasures Against Disturbance and Pollution as a Result of the Processing and Refining of Mineral Materials. These decrees were later replaced by Minister of Mines and Energy Decree 1211.K/008/M.PE/1995 on Prevention and Mitigation. The decree regulated mine reclamation and post-mining plans and guarantees, as requirements to be met before any mining activities were carried out. Later still, Director General of General Mining Decree 336.K/271/DDJP/1996 regulated reclamation guarantees in detail.

However, it seems that the decrees were not strict enough to ensure that mine reclamation and post-mining were carried out. Obligations related to mine reclamation and post-mining in Director General of General Mining Decree 336.K/271/DDJP/1996 did not form part of the mining licence issuance requirements compelling the applicant to comply with these environmental requirements. This made it possible for a mining company to still be granted a licence, even if it did not provide mining reclamation and post-mining plans and guarantees. Furthermore, there were some weaknesses in the decree, including unclear guidelines and procedures for identifying post-mining land use for each mining area, unclear provisions for the renegotiation of future reclamation plans to accommodate changes in regional conditions, and a lack of measurable performance indicators against which compliance with a reclamation plan could be determined (McMahon *et al.*, 2000: 21). Contemporary news reports regularly featured stories about extensive ex-mining land in Indonesia being abandoned, resulting in environmental damage. There were even some reports of local children having accidents in the abandoned mine pits.³

3 For example:

<https://www.jatam.org/tag/lubang-tambang/>;
<https://www.mongabay.co.id/2021/11/05/sejak-2011-sudah-40-nyawa-melayang-di-lubang-tambang-batubara-kaltim/amp/>;
<https://www.bbc.com/indonesia/indonesia-50184425.amp>; <https://amp.kompas.com/regional/read/2022/03/11/165456078/genangan-air-lubang-tambang-batu-baradi-kukar-ancam-permukiman-warga>; and,
<https://www.cnbcindonesia.com/news/20210129141759-4-219673/ribuan-lubang-tambang-tak-direklamasi-begini-data-esdm>

Indonesia's participation in the Stockholm Conference encouraged the passing of the 1982 Law on Basic Provisions for Environmental Management (or, the 1982 Environmental Law) (Rahmadi, 2006: 128). Prior to the 1982 Environmental Law, laws and regulations related to the environment in Indonesia, such as the Ordinance on the Protection of Wildlife (*Dinenbeschermings Ordonnantie*) and the Nuisance Ordinance (*Hinder Ordonnantie*), both from the colonial government period, were inconsistent (Bedner, 2003: 2). The 1982 Environmental Law also stipulated that any plans that were expected to have significant impacts on the environment must be accompanied by an environmental impact assessment (*Analisis Dampak Lingkungan*, or AMDAL) (Article 16). This was the first regulation to stipulate an environmental requirement before a mine could become operational in Indonesia. As explained above, before the enactment of the 1982 Environmental Law, no other environmental or natural resources law regulated mining activities in terms of environmental protection, and there was certainly no environmental requirement that had to be met before mining activities began. All mining projects executed before 1982 were designed and approved without any environmental consideration (Wiriosudarmo, 2001: 39).

In time, Government Regulation 29/1986 on AMDAL was issued. The regulation played an important role in sectoral agencies making decisions related to AMDAL, including the mining sector agencies. In Government Regulation 29/1986, the decision about whether or not an activity required AMDAL was determined by the Sectoral Minister (Article 10, paragraph 1). Furthermore, the regulation stipulated that AMDAL be submitted by companies to the sectoral minister or governor (depending on the place where the activity was carried out), after which it would be assessed by the AMDAL Commission formed by the sectoral minister or governor. The Minister of Environment produced only general guidelines regarding AMDAL preparation, whilst technical guidelines would be prepared by the sectoral minister. Based on the regulation, the Minister of Mining and Energy would make the ultimate decision regarding AMDAL for mining activities. This regulation was later amended by Government Regulation 51/1993, which gives authority to the Minister of Environment to determine the types of business or activities that are subject to AMDAL, after hearing and taking into account the suggestions and opinions of sectoral agencies (Article 2, paragraph 2).

The 1982 Environmental Law was later amended by Law 23/1997 on Environmental Management (the 1997 Environmental Law), which made it clear that every business and/or activity that had a large and significant impact on the environment was required to have AMDAL, in order to obtain a licence to conduct such business and/or activity (Article 18, paragraph 1). Therefore, based on the 1997 Environmental Law, a mining licence could only be obtained by a company after it had obtained AMDAL. Subsequently, the Government Regulation on AMDAL was replaced by

Government Regulation 27/1999. In contrast with previous government regulations, Government Regulation 27/1999 stipulated that the AMDAL Commission would no longer be within sectoral agencies, but within an environmental impact control agency that would be based at the central government or regional government offices⁴, depending on where the activity was being carried out (Article 18, paragraph 1).

Both the 1982 Environmental Law and the 1997 Environmental Law were made so that all law and regulation related to natural resources and the environment had to refer to them. The 1997 Environmental Law also recommended that other laws be reformed and harmonised according to the basic ideas or principles of the Environmental Law (Rahmadi 2006: 129). However, no steps towards integration, harmonisation or even coordination were taken, so that most environmental decisions were only determined by sectoral regulation (Bedner, 2003: 4). One reason for this is that the structure/hierarchy of law and regulation in Indonesia does not recognise an umbrella act: a law which is used as a reference for other laws. Ergo, laws related to natural resources are not required to comply with environmental laws. Moreover, the Ministry of Environment was not very influential, having authority only over coordinating the activities of sectoral departments and other government agencies in environmental management, and publishing environmental quality standards and guidelines (Rahmadi, 2006: 130-131). On the other hand, based on sectoral laws and regulations, sectoral departments have environmental regulatory authority over their respective sectors (Rahmadi, 2006: 130-131). Unfortunately, although most of the sectoral departments had environmental bureaus, which should have served to encourage coherence with environmental policies and norms, they were predominantly weak (Otto, 2003: 17). As a result, many environmental regulations were difficult to implement, including AMDAL. Although Indonesian rules regarding AMDAL were consistent with international standards, AMDAL did not work as it was intended to work (Ballard, 2001: 14). There were numerous problems with its implementation; for example, many activities subject to an AMDAL procedure were carried out without AMDAL approval provided by the AMDAL Commission (Rahmadi, 2006: 131). In other cases, AMDAL was simply copied from previous submissions for other projects (Lindsey & Butt, 2018: 166; Indrarto *et. al*, 2012: 94).

4 The Environmental Impact Control Agency was called *Badan Pengendalian Dampak Lingkungan* or BAPEDAL. This agency was tasked with monitoring and controlling development activities that have a significant impact on the environment. BAPEDAL was formed based on Presidential Decree 23/1990 on the Environmental Impact Control Agency. Consequently, the government formed BAPEDAL in several regions, based on the Decree of the Head of BAPEDAL 136/1995 on the Organization and Work Procedure of the Regional Environmental Impact Control Agency. In 2002, in response to Presidential Decree 4/2002 on Amendment to Presidential Decree Number 108 of 2001 on Organizational Units And Duties of Echelon I Minister of State, BAPEDAL merged with the Ministry of Environment.

The implementation of AMDAL in the mining sector encountered specific problems. AMDAL for mining activities were often not detailed enough to cover the environmental impacts caused by mining (Marr, 1993; McMahon *et. al.*, 2000; Ballard & Burke, 2006). Moreover, AMDAL was designed to address environmental impacts at the mining level only, omitting the impacts at landscape level, such as those related to the overall scale of mining activity in an area and the level of expansion (McMahon *et. al.*, 2000: 21). Meanwhile, most AMDAL contained large amounts of irrelevant information and failed to focus on the main aspects of the affected environment in sufficient detail, so that the key and unique mining issues were not adequately addressed (McMahon *et. al.*, 2000: 20). This problem was probably caused by the fact that most of the environmental consultants in Indonesia were not familiar with, or experienced in, the mining industry and its particular aspects (Wiriosudarmo, 2001: 36). Moreover, AMDAL approval was given by the Environmental Impact Management Committee, the members of which were only representatives of various stakeholders and therefore not always experts in fields related to AMDAL. Consequently, they were not sufficiently competent to gauge the seriousness of environmental problems caused by mining activities (Wiriosudarmo, 2001: 36). The time allotted to conducting AMDAL was also very short, because mining companies usually wanted to complete their AMDAL as soon as possible, so that they could start their construction phase. This meant that there was rarely enough time to collect and analyse data, or to communicate effectively with potentially affected communities (Wiriosudarmo, 2001: 37). Although AMDAL is supposed to be communicated to the community, mining companies often either did not present AMDAL to local residents at all, or they did so, but the meetings were conducted using technical language that was difficult for many to understand (Fünfgeld, 2016: 152). Worst of all, often the results of environmental impact assessments were not adequately taken into account in decisions to approve licensing applications (McMahon *et. al.*, 2000: 21).

Restricted areas for mining activities

The problems associated with issuing mining licences also related to where mining activities were being carried out. Initially, mining activity was permitted in almost all areas, because the government placed a high priority on mining activity as an important source of foreign currency and foreign investment (Otto, *et. al.*, 1999: 327; Wiriosudarmo, 2001: 8-9). Forestry was the sector most affected by mining, as most mining activities were being carried out in forest areas and the old Forestry Law 5/1967 did not prohibit mining in forest areas. As explained above, all sectors were expected to support economic growth, therefore the forestry law also supported the exploitation of natural resources in forest areas. Hence, there was no barrier to the government issuing mining licences for mining in forest areas.

In the 1990s several laws were adopted that limited the area of mining activity, such as Biodiversity Law 5/1990, Spatial Planning Law 24/1992, and Forestry Law 41/1999. After the new Forestry Law 41/1999 was passed, at the end of the New Order period, a lease-use forest area licence (*Izin Pinjam Pakai Kawasan Hutan* or IPPKH) was required for every mining activity in a forest area and open mining was prohibited in protected forests. However, the process of assigning a status to forest areas had its own problems. The status of forest area at that time was based on an agreed forest land use map (*Tata Guna Hutan Kesepakatan* or TGHK) originally drawn up in 1982, which classified approximately 141 million hectares of Indonesia's total land area of 187 million hectares (about 74% of the total) as forest land (Resosudarmo, *et. al.*, 2014: 264). However, TGHK was mostly indicative and often did not reflect actual conditions on the ground, causing land use conflict (Resosudarmo, *et. al.*, 2014: 264). At the same time, the Department of Mining and Energy had its own map, which was different to that of the forestry sector. Conflict between the forestry sector and the mining sector in Indonesia became endemic (World Bank, 2001: vi). This was exacerbated by the lack of coordination within and between institutions, which in turn hampered the balance between environmental and development issues (World Bank, 2001: vii).

The determination of forest areas continued to be a problem, because more and more actors were developing an interest in forest areas. The passing of Spatial Planning Law 24/1992 also did not help to resolve the land conflict problem. At implementation level, the ministers in power, especially the forestry and mining ministers, refused to treat Law 24/1992 as a reference point (Moeliono, 2011: 93). If all sectors had to refer to Law 24/1992, then it would be necessary either to renegotiate the terms and conditions of existing production sharing agreements and contracts of work, or to cancel existing forest concessions, which would damage the existing public-private business networks. Therefore, the Suharto government also needed to maintain a sectoral approach to natural resource management (Moeliono, 2011: 94). Even the Minister of Forestry claimed that forest land was not subject to comprehensive government spatial planning, giving him the ultimate authority to determine which areas were under its exclusive jurisdiction and to include areas as forest land (Moeliono, 2011: 94-95). The issuance of Spatial Planning Law 24/1992 complicated matters even further, as it gave local governments the authority to make a regional spatial plan (*Rencana Tata Ruang Wilayah*, or RTRW) for their area. As the status of the forest had been determined in the TGHK, as explained above, there was a need for conformity between the TGHK and RTRW maps, and the process of making this happen was known as *Paduserasi*. Considering that this process determined power over land, the implementation of *Paduserasi* was obviously not easy, and in some provinces it dragged on for years, especially in the provinces of Riau and Central Kalimantan, which both had large forest areas (Resosudarmo, *et. al.*, 2014: 264). This problem continued, especially

during the decentralisation period, when the regional government (in addition to having the authority to issue spatial planning) had the authority to grant land use licences for plantation and mining, meaning that they had even more interest in the forest.

The environmental impact of mining licence issuance policies and their implementation

During the New Order period Indonesia focussed on economic growth, as described above. As the country is blessed with abundant natural resources, various commodities have been extracted and exported, on a large scale, since the beginning of the New Order period (Gellert, 2010). Technocrats and bureaucrats formulated the necessary economic policies to attract foreign investment and support from the governments of Western countries and Japan (Crouch, 2010: 16). Therefore, Indonesia's mining policy strongly encouraged the exploitation of minerals and coal, especially with regard to the licensing process described above. The flexible approach to issuing licences and overall mining governance in the New Order period made Indonesia one of the largest producers of tin nickel and copper in the late 20th century (Devi & Prayogo, 2013: 9). The CoW scheme succeeded in attracting foreign investors to explore and develop mineral resources in Indonesia, and income from the mining sector has therefore improved since the early 1970s (Suryantoro & Manaf, 2002: 4). Indeed, Indonesia's economic growth was partly financed by the exploitation of extensive natural resources, found mainly in its outer islands (Crouch, 2010: 90). Therefore, throughout the 1980s and 1990s, Indonesia's New Order was respected as a model of successful national development based on prudent economic policy-making (Gellert, 2010: 37).

On the other hand, the mining industry was full of corruption and cronyism. State authority over various policies, including mining licences, was used as an important source of funding for the military and other state agencies, as well as for individual officials and their families (especially the president's family) via a patronage system (Hadiz & Robison, 2013: 47). Revenue from the mining sector – especially from foreign companies – flowed towards the centre, in accordance with government policies and mining contract provisions, whilst the welfare of local communities was neglected (World Bank, 2001: 62; Robinson, 2016: 145). Domestic critics began to frequently raise the issue of corruption which was carried out by President Suharto's regime in the 1990s, when the beneficiaries of patronage were usually Suharto's children (Gellert, 2010: 42).

Due to the corrupt implementation of pro-growth mining policy, the granting of mining rights was not based on environmental interests. The environmental damage caused by mining activity during the New Order period was enormous. Damage included extensive land disturbance, the

loss of forest cover and habitat, the contamination of rivers used for drinking water and food supplies, and increasing social conflict over access to mineral resources (World Bank, 2001). The environmental impacts were widely reported; for instance, the tailing dumped by Freeport's Grasberg mine into the Aikwa River, then into the Arafura Sea, south of New Guinea. The disposal of tailings caused changes to the forest ecosystem, a reversed river flow, and the presence of copper deposits along the river (Marr, 1993; Bachriadi, 1998). Freeport's mining operations threatened most species, as well as putting heavy environmental stress on Lorenz National Park, a World Heritage site that surrounds the area (Resosudarmo *et. al*, 2009, 42). Environmental problems due to tailing disposal also occurred in Minahasa, North Sulawesi. Newmont Minahasa Raya, established in 1986, was widely reported to have dumped tailings into the bottom of Buyat Bay, causing pollution there.

Mining has also contributed significantly to forest degradation and deforestation. Tailings and waste rock are disposed of off-site, including in forest areas (Wiriosudarmo, 2001: 33). Moreover, most mining requires forest conversion. Mining for coal and other minerals mostly uses open-pit mining techniques, which create significant environmental damage because the felling of trees, animals, and soil from a large coverage area disrupts the ecosystem and, after mining is complete, the land is often left neglected (Resosudarmo *et. al*, 2009: 42). On the other hand, mine reclamation is usually only carried out over a small area and is not taken seriously; for example, by only planting non-native botanical species (Resosudarmo *et. al*, 2009, 42).

To summarise, the New Order focussed on economic growth and one method for achieving this was mining industry development, meaning that environmental protection policies were not a priority. The policy of issuing mining licences and mining contracts was intended to attract investors, rather than to prevent the adverse effects of mining. Environmental problems due to mining, which were becoming increasingly real and widespread, were not responded to by the mining legal framework. Mining policies in laws and regulations did not change much during this period. Even though several regulations were issued regarding environmental protection for mining activities, this was more in service of following the global trend at the time, in which the environment was starting to be considered, and less in service of solving mining-related environmental problems. Further, the environmental laws and implementing regulations that were subsequently issued could not regulate mining licensing or contract processes for mining, because these fell under the authority of the mining sector. Hence, environmental problems were getting worse and the legal framework was not working towards solving them.

2.5 THE REFORM PERIOD (1999-2008)

The economic crisis in 1997 created social, economic and political turbulence in Indonesia. This was exacerbated by increasing environmental damage in the mid-1990s, when forest fires of unprecedented magnitude and geographic scope caused the loss of high forest cover on two natural resource-rich islands, Kalimantan and Sumatra (World Bank, 2001: i). This crisis forced President Suharto to resign and hand over to the vice president, Bacharuddin Jusuf Habibie. Furthermore, in order to restore the economy, the Indonesian government was forced to agree to the demands of the International Monetary Fund (IMF) and other global organisations for broad reforms of many aspects of state administration (Hadiz & Robison, 2013: 35). The fall of Suharto was expected to open the door to a dramatically different kind of politics, in which individuals and social organisations could demand responsible governance and the rule of law (Hadiz & Robison, 2013: 35). This situation also prompted many demands to change the pattern of natural resources governance. This was because such governance was considered to be exploitative, as it mainly benefitted people who were close to central government.

During the economic crisis, the relationship between central and regional government was also disrupted. Regional elites no longer received economic benefit from the centre, because central domination was no longer a source of profit for regional elites, but instead an unnecessary burden (Crouch, 2010: 90). Therefore, regional elites tended to favour their own areas earning a living, especially in areas rich in natural resources (Crouch, 2010: 90). Furthermore, people's hatred for what was seen as central domination and unfair treatment was also widespread (Crouch, 2010: 90). Indeed, for a while before Suharto stepped down, many provinces had been complaining of excessive control by the economic, military, and central bureaucracies, and that Indonesia's natural resources, mostly located in the outermost regions, were being almost entirely channelled to the centre (Butt, 2010: 1-2). Moreover, the regions were dissatisfied about their local natural resources being appropriated by central government, along with encountering stifling bureaucratic control, military-led surveillance, and human rights violations (Butt & Parsons, 2012: 92).

President Habibie initiated several policies, such as freedom of the press, freedom to form political parties, and free elections. He also granted a referendum in East Timor, as well as bringing in administrative decentralisation (Schulte Nordholt & Klinken, 2007: 12). Decentralisation promised local democracy, because with the removal of the New Order's authoritarian political control, regional 'civil society' and a free press would emerge to monitor regional government performance and ensure transparency, openness to criticism, and sensitivity to local needs, as well as holding politicians accountable to voters (Crouch, 2010: 110). In addition, regional government

would be closer to the community and more responsive to its needs and expectations, so that service delivery in the region would improve (Crouch, 2010: 110; Buehler, 2010: 269).

Within one year, the decentralisation programme was built and Regional Government Law 22/1999 was enacted. This law was made in a hurry by a group of bureaucrats, without any feedback from the regions (Schulte Nordholt & Klinken, 2007: 12). One of the main reasons why the government wanted to accelerate the process was to accommodate anti-Jakarta sentiment in many areas outside of Java (Schulte Nordholt & Klinken, 2007: 12). Meanwhile, a lack of public attention was being given to the process of making the autonomy law, due to other pressing political activities at the time, including student demonstrations demanding Suharto's trial, commotion in the military, and massive financial scandals (Crouch, 2010: 95).

Regional Government Law 22/1999 gave regional governments the authority to manage natural resources in their own territories. The determination in the law of authority over natural resource management being based on area gave the district government wider authority to issue mining licences than the provincial and central governments, because most natural resources were located in district areas. This was reinforced by Government Regulation 25/2000 on the Authority of Central Government and the Authority of Provinces as Autonomous Regions, which stated that provincial government authority to grant mining licences was only for mining activities located in cross-regency/municipal areas (Article 3). Meanwhile, central government's authority was over the establishment of guidelines to control natural resources and preserve environmental functions (Article 2).

The law regulated the distribution of authority at all levels of government (central, provincial, district/municipality), but it did not provide clear rules regarding the process of transferring power and the relationship between central and regional government. Decentralisation did not amount to a simple transfer of power, because the legal changes omitted any definition and regulation of the respective legal and administrative roles, and areas of responsibility, at various levels of government (McCarthy, 2004: 1208). As the law was adopted hastily and the government failed to issue important implementing regulations, the speed of the transformation caused a lot of disturbance and confusion, as well as a lot of conflict over which level of government had authority over which areas (Crouch, 2010:116). At the same time, district governments were rapidly using their new powers to increase regional revenues (Crouch, 2010: 116). Actors at every level sought to support their interests by advancing their own interpretations of decentralisation policies (McCarthy, 2004: 1200). Regional governments considered that they had full power over natural resources, without being controlled by central government (Indrarto *et. al.*, 2012; Devi & Prayogo, 2013; Abdullah, 2017a). This ambiguity allowed state actors in the regions to have greater

discretion when it came to allocating access rights, enabling them to use various laws to assert the legitimacy of their positions (McCarthy, 2004: 1208). Decentralisation allowed such actors to have freedom over natural resources, including through the granting of licences.

Utilisation of natural resources by regional governments was primarily designed to pursue regional own-source revenue (*Pendapatan Asli Daerah*, or PAD). Broadly speaking, regional revenue consisted of central government transfers, PAD, and other forms of legitimate income. Transfers from the centre to the regions were in the form of funds sourced from the State Revenue and Expenditure Budget (*Anggaran Pendapatan dan Belanja Negara*, or APBN) and allocated to the region in the context of implementing decentralisation. Meanwhile, PAD created greater incentives, because it went directly to the regional government treasury, to be used as it saw fit. The issuance of licences was an important way to increase PAD (Resosudarmo *et. al.*, 2014: 268). Therefore, district elites extracted resources and expanded their businesses under the umbrella of district legality by issuing regional regulations (McCarthy, 2004:1216), including creating rules regarding licensing. As regional regulations were intended to get PAD, it was therefore not surprising that many regional regulations were misguided or unclear, violating the rights of citizens, imposing excessive taxes, and even violating Indonesia's international obligations (Butt, 2010: 10-11).

Another problem was the capacity of regional governments. At the time, little was known about the capacity of regional forestry and mining services in the various districts and provinces. Clearly, until the end of the Suharto period these agencies did not have the authority or funds to exercise regional control (World Bank, 2001: 91). However, there were no rules regarding the transition of authority from central to regional government, and transition time was not sufficient for adaptation to the new authority. The proposed two-year transition and implementation period was even shortened to six months, which was too short a time for anything to be done properly (Schulte Nordholt & Klinken, 2007: 13). With little time and no guidelines, it was difficult for regional governments to be ready to manage natural resources. Given the district governments' relative lack of technical and managerial capacity (even in Java), it was unlikely that the district governments outside Java had the requisite resources, such as trained officials, university faculties, accredited laboratories, and political leaders of adequate status (World Bank, 2001: 91).

In some cases, implementation of decentralisation progressed in the opposite direction to that expected, resulting in increased exploitation of natural resources (de Jong *et. al.*, 2017). Exploitation of natural resources was certainly not carried out merely for the welfare of the community. Decentralisation did not produce democracy, good governance and strong civil society at the regional level (Jong *et. al.*, 2017: 335). Under certain conditions,

decentralisation was even followed by forms of authoritarian rule (Schulte Nordholt & Klinken, 2007: 1). The New Order still inherited an authoritarian government model during its implementation of decentralisation, but it operated at a different level, so the situation remained far from the goal of good governance (McCarthy, 2004: 1200). The decentralisation of corruption, collusion, and political violence that used to belong to the centralised New Order regime were remoulded into a patrimonial pattern that existed at regional level during the decentralisation period (Schulte Nordholt & Klinken, 2007: 18). Decentralisation had certainly benefited the regional elite (McCarthy, 2004: 1200). In contrast to the centralist clientelism of the past, Indonesia was now characterised by decentralised clientelism (Aspinall, 2013: 36). Therefore, with great authority over natural resources, but without sufficient capacity and integrity, regional governments exploited natural resources by issuing many licences whilst giving very little attention to environmental protection (McCarthy, 2004; Barr, *et. al.*, 2006; Schulte Nordholt & Klinken, 2007; Lindsey & Butt, 2018). In this context, licensing did not function to prevent negative impacts from mining activities; instead, it functioned as a legal tool to exploit mines.

Mining licence issuance problems related to the environment at the beginning of the reform period

As discussed in the previous sections, throughout Indonesia's history its mining policy was mostly intended to satisfy economic interests, so that mining licence issuance policies tended to maximise mining exploitation. Although environmental policies regarding mining were developed, they did not solve any of the environment problems related to mining. The subsections below concern four mining licence issuance problems related to the environment which were notable during the early reform period. The problems were inherited from previous periods, and were exacerbated during the decentralisation period.

- 1) *The rampant issuance of mining licences by regional governments, which are not in accordance with legal procedures and which ignore the environment*

As explained above, after the issuance of Regional Government Law 22/1999 each sector had to adapt its policies by devolving certain powers to regional governments. The Department of Mining and Mineral Resources adjusted its regulations, in line with the decentralisation policy. This included Government Regulation 75/2001 on the Second Amendment to Government Regulation 32/1969 on the Implementation of Mining Law 11/1967. Based on Government Regulation 75/2001, the authority to issue mining licences henceforth depended on the location of the mining activity (Article 1). This meant that, in almost all cases, the district government for where the mining was located had the authority to issue mining licences for

all types of mining, except for mining operations crossing district borders, for which the province had authority.

The government regulation then became the basis for regional government issuing thousands of mining licences. District governments were quick to jump on the mining bandwagon, seeing mining licences as an easy way to make revenue (Robinson, 2016: 147). There was euphoria about taking advantage of the rich mineral resources in the regions. Several studies detail the increase in mining licence issuance, with around 600 mining licences issued before decentralisation, and around 10,000 licences issued in 2010 (Indrarto, *et. al.*, 2012: 31; Hayati, *et. al.*, 2013: 36; Resosudarmo *et. al.*, 2012: 10; Devi & Prayogo, 2013: 42; Purnamasari *et. al.*, 2017: 24; Abdullah, 2017a: 3). Many mining licences were granted without adequate studies being undertaken, and without compliance with laws and regulations being reviewed (Abdullah, 2017a: 1). Licences were even being issued without an AMDAL (Hayati, 2013: 36).

Whilst district governments had a desire to obtain financial benefit from issuing licences, they did not in fact have the capacity to do so properly. They were not ready to deal with the complex and highly technical issues and legal requirements of mining management, including processing licence applications (Gandataruna & Haymon, 2011: 224; Devi & Prayogo, 2013: 43; Venugopal, 2014: 11). District governments also did not have clear data on the condition of their natural resources, as they lacked adequate mining databases, especially those pertaining to the area and mapping coordinates (Venugopal, 2014: 10). The delegation of mining management authority to regional governments was not accompanied by the infrastructure required for mining management, such as a regional administration system and a body of mining inspectors (Bambang Gatot Hariyono in Hayati, 2015: xii). This meant that district governments issued licences without adequate knowledge, data, and instruments. Furthermore, given the district's limited technical capacity and resources, and the possible absence of environmental constituencies, they paid little or no attention to the environmental and social impacts of mining operations (World Bank, 2001: 98).

Regional governments issued mining licences without regard to central government regulations and procedures, which they were still supposed to take into account (Resosudarmo, 2014: 276). Mining licences were granted to unqualified investors who lacked technological, technical and financial competence, and this further accelerated environmental damage (Gandataruna & Haymon, 2011: 226). Overlapping, where mining licences overlapped with licences issued by other sectors, was a classic phenomenon, but mining licences even overlapped with other mining licences and some were granted for sites located in conservation areas (Indrarto, *et.al.*, 2012: 31; Kartikasari *et.al.*, 2012: 3; Devi & Prayogo, 2013: 42-43; Resosudarmo, 2014:

276; Abdullah, 2017b: 14). This became a key cause of increased deforestation (Resosudarmo *et al.*, 2009: 8).

Regional mining licensing problems occurred in the absence of central government control. Since decentralisation began, there had been miscommunication and miscoordination between the central and regional governments, resulting in inconsistencies between central government mining policies and those of regional governments (Venugopal, 2014: 9; Fünfgeld, 2016: 150). Although the Department of Mining and Mineral Resources had the authority to oversee mining, its weak vertical relationship with regional governments led it to regularly ignore the mining licences they issued (Resosudarmo, 2014: 277). Furthermore, the weak coordination of data between the central government and regional governments made it difficult for central government to supervise licensing in the regions (Venugopal, 2014: 10)

2) *Complex and non-transparent licensing procedures for mining have an impact on the environment*

Several studies have shown that licences related to natural resources in Indonesia are complex. For example: several different licences obtained from different government agencies are required for one activity, and the procedures for these are governed by different regulations; licensing takes a long time; and, the cost of the process is uncertain (e.g. Kartikasari *et al.*, 2012; Kartodihardjo *et al.*, 2015). Government officials wishing to issue licences for illegal purposes will find it easier to avoid the licensing hassle. Illegal practices in issuing licences are even more difficult to detect, if the procedures are not transparent, and the complex and non-transparent mechanisms for issuing mining licences make it easier to deviate from regulations related to the environment.

As explained above, based on Mining Law 11/67, an individual or company must apply for KP or enter into CoW with the Indonesian government, in order to carry out mining activities. Furthermore, Environmental Law 23/1997 and Government Regulation 27/1999 stipulated that, prior to obtaining a business licence, it was necessary to have an AMDAL that had been approved by the AMDAL Commission in the district where the mining activity was going to be carried out. In addition, if a mining activity was carried out in forest areas, an a lease-use forest area licence (*Izin Pinjam Pakai Kawasan Hutan* or IPPKH) was required, in accordance with Forestry Law 41/1999. The entire procedure prior to mining was governed by different laws and regulations, and by different agencies. The procedure that must be followed to carry out mining activities was therefore not a simple process. Whilst different from a mining licence, a mining contract had its own procedure that was not tied to the complexities of Indonesian law.

During the reform period, when the authority for mining licence issuance was delegated to regional government, licensing procedures became even more complex. Power over natural resources was used by regional governments to generate regional revenue, by issuing various burdensome licence issuance regulations, including an uncertain timeframe for the licensing process, and the imposition of illegal taxes and levies (O'Callaghan, 2010: 222; Kartohadiprodjo *et. al.*, 2015: 185; Purnamasari *et. al.*, 2017: 24). Regulatory problems in the area added to the confusion and legal uncertainty over mining licensing (Resosudarmo *et. al.*, 2009: 36). Furthermore, some officials increased their income from licensing and took advantage of the complex systems (Lindsey & Butt, 2018: 162). Public services had always had a reputation for being corrupt, and this had worsened since decentralisation began (O'Callaghan, 2010: 222).

The situation was exacerbated by non-transparent and minimal public participation in decision-making for the licensing process, which hindered monitoring by the community (Indrarto, *et. al.*, 2012:23-26; Venugopal, 2014: 8), making it easier for corrupt practices to occur. Many of the irregularities in licence granting were associated with the election process for regional leaders (*Pemilihan kepala daerah or Pilkada*). Companies provided campaign funds to prospective regional leaders, with certain reward expectations when the candidate won the election (Aspinall, 2013: 38; Indrarto *et. al.*, 2012: 10; Devi & Prayogo, 2013: 44; Abdullah, 2017a: 1; Robinson, 2016: 147). Transparency in the licence issuing process could reduce corrupt practices, because everyone had the opportunity to monitor the process. However, throughout the history of Indonesian mining management there had never been any rules regarding transparency, and this weakness was maintained during the decentralisation period.

3) *Lack of environmental safeguards for the issuance of mining licences*

The issuance of licences should aim to prevent activities that can be harmful, including endangering the environment. However, as explained in the previous section, laws, regulations and policies that have historically been applied in Indonesia were not sufficient to filter out mining that damaged the environment.

The previous section shows that, although regulations governing mine reclamation and post-mining had existed since the New Order period, companies were not required to fulfil all the obligations in the regulations before a licence could be issued. This meant that there was no compulsion for companies to carry out their obligations, because there was no risk of not getting a licence. Hence, in practice, Mine Closure and Reclamation plans were hardly ever prepared and approved before the commencement of production (IMI, 2018: 48). Even at the time, many mining companies did

not carry out their obligations regarding mine reclamation and post-mining (Abdullah, 2017a: 12; Abdullah, 2017b: 33).

As discussed in the previous section, the implementation of AMDAL during the New Order period was problematic, making it a difficult tool to use to prevent environmental damage. However, in the reform period transferring the authority to assess AMDAL to district/city governments, as a consequence of the decentralisation policy, was also difficult. Before the decentralisation policy, AMDAL was assessed by the AMDAL Central Commission and either approved by the Head of the Environmental Impact Control Agency, or assessed by the regional AMDAL Commission and approved by the governor. However, under Regional Government Law 22/1999 one of the matters which had to be carried out by the regional government was environmental management (Article 11). This meant that the district government had authority to conduct an AMDAL assessment and decision. Based on Government Regulation 25/2000, the provincial government only had the authority to assess AMDAL when the location of activities covered more than one regency/city. The central government only had authority to assess AMDAL when the location of the activities covered more than one province, were in one area, shared a sea area with other countries within less than twelve miles, or were located adjacent to a state border.

The transfer of authority for AMDAL assessments from the provincial to district/city levels was not without its problems. Research conducted by Bedner, regarding the consequences of decentralisation for AMDAL, shows that at first this transfer of authority caused problems because there was no legal rule regarding AMDAL assessment committees at the district level, so that in practice the province continued evaluating AMDAL to fill that gap (Bedner, 2010: 45). In addition, the decentralisation of AMDAL assessments to district level allowed districts to adjust the rules for the size and scope of projects requiring AMDAL, resulting in fewer projects than before being subject to AMDAL procedures (Bedner, 2010: 45). There was also a huge capacity problem for regional governments.

The quality of AMDAL implementation during the decentralisation period, including for mining activities, did not appear to be better than during the previous period. With regard to the issuance of mining licences, the possibility of implementing AMDAL in the district was even lower than before. This was due to the likelihood that regional governments were not prepared to provide a sound AMDAL assessment system, coupled with regional governments' strong desire to issue mining licences. Therefore AMDAL, as one of the tools which could be used by the government to filter mining activities that did not damage the environment, was entirely neglected at regional government level.

4) Issuance of mining licences in environmentally vulnerable areas

As described in the previous section, mining in conservation and protected areas had been a problem before the reform period. During the New Order period there were several reasons why mining was always prioritised whilst the attention given to the environment was very slight. Regional governments were relatively powerless and they let mining companies manage their own affairs, so that the companies were involved in their own spatial planning, sometimes even encroaching on territories outside their concessions (Robinson, 2015, 145). This situation did not improve much after the beginning of the reform period, partly because several laws and regulations related to land protection issued during the New Order period remained in place, i.e. Biodiversity Law 5/1990, Spatial Planning Law 24/1992, and Forestry Law 41/1999.

Government policy during the reform period also did not show willingness to protect vulnerable areas from mining activities. Forestry Law 41/1999, which was issued at the end of the New Order period (as described in previous sections), prohibits open-pit mining activities in 'protected forests'. Conservation advocates appreciated the efforts of the Ministry of Forestry to maintain the function of protected and conservation forests, amid strong pressure from the mining sector. However, the new policy was seen as a major setback in the government's efforts to lure investors to the mining sector (Resosudarmo *et. al.*, 2009: 35). Tough lobbying by the mining sector resulted in the issuance of Government Regulation in Lieu of Law (*Perpu*) 1/2004 on Amendments to Law Number 41/1999 on Forestry, which was later officially confirmed as Law 19/2004 on Stipulation of Government Regulation in Lieu of Law Number 1/2004 on Amendment to Law Number 41/1999 on Forestry to Become Law (Resosudarmo *et. al.*, 2009: 35). The regulation allowed 13 mining companies that had obtained contracts on protected or conservation areas prior to the enactment of the forestry law to continue their activities.

The implementation of the forestry law also failed to maintain the protection and conservation of forests. Even though Article 38 of Forestry Law 41/1999 requires IPPKH ownership for mining activities in forest areas, many licences were issued in forest areas without IPPKH. Whilst IPPKH can be used to assess mining activities that will be carried out in forest areas, it can also serve to prevent mining activities in conservation and protected forest. On the other hand, some mining activities were carried out in conservation or protected areas, which was actually prohibited by Forestry Law 41/1999 (Abdullah, 2017a: 1).

In fact, obtaining IPPKH was difficult and time consuming (IMI, 2018: 33). There were general issues connected with obtaining licences in the forestry sector (including IPPKH), such as: a broad discretion to issue licences; a

non-transparent licence issuance implementation mechanism; an unclear time limit for licences to be granted; space being made for the agent (applicant) to influence the decision-making process; and, a lack of public accountability making corruption even more systemic (Kartodihardjo *et. al.*, 2015). The difficulty in obtaining IPPKH could result in mining companies being reluctant to apply for a licence to carry out their activities in forest areas.

Mining in forest areas was also connected to determining the status of forest areas. The Ministry of Forestry was responsible for determining forest areas, consisting of protected areas, conservation areas, and production areas, before deciding whether various activities would be allowed in those areas. However, the process of determining forest areas also encountered various problems. As explained in the previous section, forest area used to be determined based on TGHK, but after regional governments gained the authority to issue RTRW based on Spatial Planning Law 24/1992, there had to be harmonisation between TGHK and RTRW, which was achieved via a process called *Paduserasi*. After the decentralisation policy had been implemented, regional governments had more interest in determining land use via RTRW. This was because regional governments now had the authority to issue land-based licences, e.g. for plantation and mining. Therefore, the wider the forest area, the more limited the area of land for which these licences could be granted. The conflict of interest between regional governments and the forestry sector caused difficulties in harmonising the TGHK and RTRW. For example, Central Kalimantan Province issued a regional regulation on RTRW in 2003, which reduced the designated forest area to 10.3 million hectares and increased the non-forest land area to 5.1 million hectares (Resosudarmo, *et. al.*, 2014: 265-266). The Central Kalimantan government then issued agricultural and mining licences based on their 2003 RTRW, which caused an overlap with forest areas based on TGHK as stipulated by the Ministry of Forestry (Resosudarmo, *et. al.*, 2014: 266)

Land use overlaps caused by differences in the TGHK and RTRW maps were also exacerbated by conflicts between sectors whose activities were land-based. This is because each sector had a land management plan of their own. The Ministry of Forestry, the Ministry of Home Affairs, the Ministry of Energy and Mineral Resources, and the National Land Agency (*Badan Pertanahan Nasional*, or BPN) all made their own maps (Resosudarmo *et. al.*, 2014: 267). At the time there was no comprehensive spatial map applicable to all sectors, and each sector referred to different regulations and maps. Meanwhile, coordination, which had not been going well since the previous period, was getting worse with the presence of a new actor: the regional government, which was also in charge of land management. The absence of integrated data and coordination of land planning between sectors resulted in the unclear definition of areas categorised as environmentally vulnerable to mining.

2.6 CONCLUSION

This chapter discussed how laws, regulations, and policies related to mining licence issuance and environmental problems have influenced each other throughout Indonesia's history, from the colonial period to the beginning of the reform period. It also discussed how the legal framework for mining licence issuance and its implementation have contributed to environmental problems, and how the subsequent legal framework has responded to these problems, as well as the factors which have influenced the conditions.

During the colonial period, mining policy issued through the IMW, which was the first mining law in the Dutch East Indies, aimed to use mining materials to increasingly benefit the economy. Therefore, all mining management rules, including the mechanism for granting mining rights through concessions, were based on the economic interests of the Dutch government. Likewise, when the form of mining contracts was later regulated by the IMW amendment, this was based on the Dutch government's (economic) consideration that foreign resources were needed for mining utilisation, whilst ensuring that the government would benefit from an agreement with a company. Therefore, even though environmental impact from mining activities had already occurred, environmental interests were still not really being considered in mining policy at that time. Moreover, there were no environmentally-focussed laws or regulations which regulated mining, and the global situation had not yet led to concern for the environment in every aspect of life. This lack of concern for the environment did not change during the post-independence period. The only important change at the time was the nationalistic approach of policy, which limited the involvement of foreign investors in every sector, including mining. Nevertheless, mining activities continued and the resulting environmental impacts remained neglected.

Environmental problems were certainly not the main concern of the next period: the New Order period. The New Order government aimed to restore the economy, which had become stagnant during the Old Order period. Rich natural resources, including those derived from mining, were used as the main capital for development. Policies to facilitate the exploitation of mining materials were issued, especially licensing policy using the Mining Contract of Work and Mining Authorization scheme. In the process of issuing licences and contractual agreements, prior to the commencement of mining activities, Mining Law 11/1967 and its implementing regulations, and the format of the mining contract of work, did not regulate the environment, let alone ensure commitment to protection of life.

From the 1970s, when environmental concerns began to be considered at global level, Indonesian laws and regulations began regulating environmental issues, and some such regulations related to mining. Even so, envi-

ronmental regulation in the mining sector at the time was very limited, and it did not strictly regulate mining. Environmental laws and regulations were also not strict enough to regulate mining activities, and the environmental sector was notably inferior to the mining sector. Meanwhile, other laws and regulations related to natural resources were not effective in limiting mining areas. Land use sectors did not coordinate with each other, and the sectors had their own problems in managing their own territory; for example, the forestry sector still encountered problems with determining forest areas. Meanwhile, due to the flexible issuance of mining licences and contracts without an adequate environmental policy, the environmental damage during the New Order period was worsening. The problems were not responded to by issuing laws and regulations that would be more protective of the environment; instead, they were simply ignored. Meanwhile natural resources were increasingly being exploited, because they were becoming even more profitable for the authorities and other parties associated with them. The use of natural resources was no longer merely a source of national economic growth, but also a way fill coffers, so that policies related to the public interest, including the environment, were viewed as obstructive to personal interests.

The reform period, which was expected to produce a more democratic government in which natural resources would be allocated to benefit the people, not just the few at the centre, was in fact no better than the previous period. During the reform period, mining licence issuance problems related to the environment were even worse, because the abuse of power that used to be carried out by the centre was now being carried out by the regions. Regional governments had the authority to issue mining licences and to manage the environment. The attraction of obtaining regional revenue and other benefits meant that the interest of regional governments in issuing mining licences as often as possible was greater than their wish to protect the environment. This was exacerbated by the fact that regional governments did not have the capacity to manage natural resources, including by issuing mining licences, which in turn made the issuance of mining licences rampant, but without sufficient knowledge and attention being given to the environment.

In summary, all the political periods had similar regulatory frameworks: rules regarding procedures for obtaining mining rights were lenient, and rules regarding environmental protection were weak. This was because mining licences were intended as a method for developing both the mining industry and the interests of several powerful parties, and were therefore only used as a legal tool to exploit mines. Therefore, even though from time to time this licensing policy caused environmental problems, subsequent laws and regulations did not respond to those problems. As a result, the problems were never resolved by laws, regulations and policies. The fol-

Following chapters explain whether the same pattern applies in the following period, up until the issuance of Mining Law 3/2020.

The previous section ends with a discussion of the environmental problems related to mining licence issuance during the reform period. The problems had actually existed since previous periods and had exacerbated since the decentralisation policy was implemented. The key problems were: the rampant issuance of mining licences by regional governments, which were not in accordance with legal procedures and which ignored the environment; complex and non-transparent licence issuance procedures; the lack of environmental safeguards when issuing mining licences; and the issuance of mining licences in environmentally vulnerable areas. Chapters III and IV discuss the extent to which these problems were addressed by Mining Law 4/2009.

