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# The natural resources industry in decentralised Indonesia: how has decentralisation impacted the mining, oil and gas industries?

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## Abstract

Indonesia's decentralisation laws have granted local governments more authority for generating higher own revenues and running more tailored decentralised public services. There is evidence, though, that inefficient and ineffective local governance continues to predominate after decentralisation. Regional autonomy, as defined in the decentralisation laws, has left some matters ambiguous, requiring more detailed implementing regulations. In the natural resource sector, in particular, the implementation of these laws has generated uncertainty for most social actors. Traditional as well as new formal and informal rules of conduct among a wide array of social actors continue to influence the management and allocation of the economic and social benefits of natural resources at the local level. All this has resulted in central-local policy inconsistencies and coordination issues, new hierarchies along geographic-political divisions, the wider spread of corruption, serious fiscal and environmental issues and adverse effects on the investment climate of the country.

**Key words:** Indonesia, decentralisation, natural resource industry.

# **The natural resources industry in decentralised Indonesia: how has decentralisation impacted the mining, oil and gas industries?**

## **1. Introduction**

In 1998, following the Asian financial crisis and more than three decades of Soeharto's centralised control, Indonesia initiated a drastic democratisation and decentralisation process. The country thus began an era of great changes and reforms (*reformasi*).

The multiple political, economic and social changes that followed the country's *reformasi* are of great interest for academics and non-academics alike. Decentralisation outcomes have been uneven, ranging from successful to failed results. Analysts have focused on the cases of inefficient and ineffective governance as well as on the country's perceived inadequate economic growth.

There is a consensus among analysts that decentralisation and greater local participation allow better matching, which helps solve and address social, political, economic and environmental problems and externalities. Decentralization allows more tailored social services and public decisions to be made with respect to local needs and aspirations, as well as increased equity to occur in the use of public resources.<sup>1</sup> The generally anticipated outcomes of decentralisation include higher efficiency, distributional equity, better service delivery through increased competition, greater local democratic participation, and greater national cohesion and political stability. In the case of Indonesia's natural resource sector, however, the existing evidence is somewhat mixed and ambiguous.

Considering the geographic, economic and socio-cultural organisation as well as the history of the country, decentralisation became a natural reaction to the previously centralised power structure. Indonesia, the largest archipelago in the world, is characterised by a complex geography and socio-cultural background due to a large multi-ethnic and multi-religion population with four centuries of colonial heritage. Indonesia straddles the Equator and is located strategically along major sea lanes from the Indian Ocean to the Pacific Ocean. Forest and woodland cover more than 60 percent of the country<sup>2</sup>, making Indonesia one of the world's most heavily forested regions and one of the largest collections of biodiversity after the Amazon. It is moreover among the world's largest gas, coal, plywood, palm oil, tin and copper exporters.<sup>3</sup>

In Indonesia, the devolution of power and authority from the central to local governments (i.e., particularly districts and municipalities) was enhanced by the desire of the regional and local governments to gain more autonomy. Natural resource industries, the extractive ones in particular, are of crucial importance due to economical and political reasons. Resource-rich provinces, districts and municipalities have historically been stronger and more active in their abilities and desires to gain more administrative and fiscal autonomy. Decentralisation increased the revenue shares from the oil and gas, mining, forestry and fishery sectors that would be transferred to the local district and municipal governments. The main beneficiaries of the fiscal decentralisation law were therefore districts and municipalities rich in oil, gas and mining resources, such as East Kalimantan, Riau, Papua, South Sumatra and Aceh. Moreover, Indonesia's decentralisation laws granted to local governments greater power to arrange their own policies, regulatory regimes and budgets. Thus, districts and municipalities gained more sovereignty for generating their own revenues by running their own decentralised services.

However, the most common criticisms of the Indonesia's decentralisation are not only the results of *reformasi* but also some inefficient practices from Suharto's era that continue to predominate after Indonesia implemented decentralisation laws. In terms of the management of the natural resource industries (i.e., oil, gas, mining, and forestry), traditional and new informal systems of exchange and accommodation among a wide range of actors (e.g., regional politicians, officials, villages and community leaders, local entrepreneurs and domestic and foreign business groups) continue to influence and generate *de facto* institutional arrangements governing the allocation and management of natural resources at the local level.

In this paper, Indonesia is examined not only because of current interests in its decentralisation but also with relation to the impact of decentralisation on the highly significant extractive industries (i.e., oil, gas and mining) and on economic performance in general. The paper is structured in four sections. Following this introduction, the next section summarises the starting points of Indonesia's decentralisation. The third section provides an overview of the mining, oil and gas sector's regulatory frameworks. Finally, the fourth section elaborates on some of the problems Indonesia is experiencing following decentralisation with emphasis on the repercussions on the oil, gas and mining sectors.

## **2. The *Reformasi* and decentralisation laws**

After more than three decades of authoritarianism and strong centralised control, Indonesia experienced a drastic democratisation process in 1998. This followed Soeharto's forced resignation after the so-called Indonesian 'May Revolution' of 1998. The 1997 Asian financial

crisis deeply affected Indonesia's economy and the countermeasures taken by Soeharto under pressure from multilateral agencies had eroded domestic confidence in the regime.

When Soeharto's vice-president Jusuf Habibie came to power, a number of provinces openly expressed dissatisfaction with the existing centralised revenue allocation. These provinces were rich in natural resources and claimed control of large portions of the revenues generated by their oil, gas, agricultural and mineral resources, e.g., Aceh<sup>4</sup>, Riau, East Kalimantan, and Papua.<sup>5</sup> The pressure from these resource-rich provinces, together with the ongoing political and ethnical separatist movements in Aceh and Papua,<sup>6</sup> forced President Habibie and the People's Consultative Assembly to formulate the so-called decentralisation laws. In particular, Habibie's government enacted two new laws, Law 22/1999 on Local Autonomy and Law 25/1999 on Fiscal Relations between Central and Local Governments; these laws initiated the extensive and drastic decentralisation process.

During Soeharto's regime, the government administration was highly centralised and divided into provinces headed by appointed governors, which in turn were divided into districts (*kabupaten*) and municipalities (*kota*, previously called *kotamadya*) that were headed by appointed local regents and city mayors, respectively. The political parties represented in both central and regional legislative bodies were popularly elected, but their role was mainly of an advisory nature and decision-making was highly centralised. From a budgetary and fiscal perspective, regional and local governments were dependent on the central government's budgeting guidelines, fund allocations and transfers.<sup>7</sup>

There was a significant fiscal imbalance in the central-regional relationship. Regional sources of finance derived from own revenues were mainly based on local taxes and represented between 17 percent of regional budgets in 1984-85, which increased to 35 percent by 1996-97. Although own revenues tended to increase, subsidies from the central government remained the main source of income. This fiscal imbalance was one of the main causes of the significant variation in the rates of regional economic development. The regions that received higher subsidies and grew faster tended to be the more developed, while the less-developed regions grew more slowly.<sup>8</sup> Paradoxically, those less-developed regions were rich in natural resources.<sup>9</sup> While the government offered subsidies to mitigate regional disparities in growth rates, their allocation was inconsistent. Subsidies were based on the proportion of regional contributions to the national economy, but a number of resource-rich provinces were contributing more than they received and faced fiscal imbalances.<sup>10</sup>

The decentralisation reform was enacted by Habibie's government to accommodate the increasing demands and pressures from both the natural resource-rich provinces and regional separatist movements, which were subsequently also endorsed by a number of foreign governments and multi-lateral agencies. Law 22/1999 provided the basis for political and administrative decentralisation, while Law 25/1999 was the basis for fiscal decentralisation. More precisely, according to Law 22/1999, financial resources must be aligned with decentralised government functions, while Law 25/1999 should provide the financial resources for the implementation of Law 22/1999. These two laws provided the basis for the stage-wise decentralisation, although the detailed sequence and implementation programs were unclear.

## **2.1. Administrative decentralisation: Law 22/1999**

According to Law 22/1999 (Article 1, parts e and f), decentralisation facilitates the delegation of authority from central government to autonomous regions, while de-concentration allows the delegation of authority by central government to provincial heads (governors). Autonomous regions include first-tier levels of local governments (provinces) as well as the second tiers (and thus the regencies or districts (*kabupaten*) and municipalities or cities (*kota*)). The key feature of Law 22/1999, however, is the devolution of power and authority from central government directly to the second-tier levels of local governments. The latter are to have broad and wide-ranging autonomy.<sup>11</sup>

Article 7 of Law 22/1990 stipulates that local governments have responsibility for all governmental matters except the areas of foreign affairs, defence and security, judicature, monetary and fiscal affairs, religion and other authorities. The latter includes natural resource utilisation as well as strategic high technology, conservation and national standardisation. With respect to natural resources, in particular, Article 10 (Paragraph 1) states that “regions shall have the authority to manage national resources located in their areas and shall be responsible to conserve the environment in accordance with the laws and regulations.” Article 3 establishes a territorial sea under the jurisdiction of the province and within this territory; as Article 10 (Paragraph 2) elaborates, the regional authority includes, among other categories, exploration, exploitation, conservation, and management of the marine area. However, there are two notable exceptions to this regional authority. First, the authority for management of the seabed appears to remain under the control of the central government, including rights to conduct activities on the seabed, such as oil, gas and mineral extraction.

Second, the elucidation of Article 10 (Paragraph 2) explicitly states that traditional fishing rights are not restricted to the regional territorial sea delimitation.<sup>12</sup> Nonetheless, Article 9 states that authority for regencies is not absolute, defining that the authority of provinces as “autonomous regions” shall cover governance authorities for environmental control under certain circumstances. Article 12 provides that articles 7 and 9 shall be implemented through further central government regulations. Therefore, until such implementing regulations are defined, the limits of central, regional and local authorities are unclear.<sup>13</sup>

One surprising outcome of Law 22/1999 has been the increased number of new local jurisdictions. The devolution of power and authority from central to local governments, exacerbated by the inherent desire of some regions to gain more autonomy, resulted in the proliferation of new districts, municipalities, and, in some cases, provinces.<sup>14</sup>

By mid-2001, the proliferation of local jurisdictions raised concerns at the central government level (including civil society and private sector groups) that local governments had taken the decentralisation too far, which, in the view of central government officials, was due to the lack of local institutional capacity and insufficient accountability. This situation led to calls to re-assess the country’s decentralisation path especially under the newly-appointed president Megawati. Given her historically more nationalistic ideology, in 2003, her team began to formulate revisions to the original decentralisation laws. In contrast to Law 22/1999, Law 32/2004 on Regional Governance stipulates the need for local governments to act responsibly, cooperate closely with the central government and ensure effective central-regional coordination.

Law 32/2004 weakened the role of local legislates. Law 22/1999 drew a distinction between the elected local legislative body (i.e., *Dewan Perwakilan Rakyat Daerah*-DPRD) and the local administration i.e., the executive branch. Whereas, the DPRD previously received wide-ranging powers to supervise and control regional administration and appoint regional heads, Law 32/2004 specifies that governors, regents and mayors should be directly popularly elected.<sup>15</sup>

Nevertheless, the implementation of the decentralisation laws reached a significant milestone with the direct presidential election in 2004. The direct elections of provincial governors and local district and municipal heads started in 2005, and the first round of elections across the nation for all governors and local district and municipal heads was completed in 2008.<sup>16</sup> While members of the central and local legislatures were still nominated by the respective parties in 2004, the 2009 general elections started with direct central and local parliamentary elections, followed by the nation-wide presidential election.

## **2.2. Fiscal decentralisation**

Law 25/1999, on fiscal balance between the central and regional government, focuses on fiscal decentralisation or, more explicitly, on the intergovernmental fiscal system. As stated in Article 1 (Paragraph 1), this law establishes a “financial division between the Central Government and the Regions and equality between Regions in a proportional, democratic, just, and transparent way by taking into consideration the potential, condition, and the requirements of the Regions,” thereby defining a funding system that reflects the division of functions of governmental levels and reduces regional funding inequalities. Article 1 also defines the two basic budgets for

governance: a central government budget for revenues and expenditures (APBN), and regional budgets for revenues and expenditures (APBD).

Article 3 of this law created four sources of regional revenues, namely original revenues, balanced funds, regional loans and other legal revenues. Original revenues, defined in Articles 4 and 5, include taxes, retributions and revenues from regionally-owned enterprises. Balanced funds (Articles 6, 7, 8, 9 and 10) consist of a region's share of a general grant and of special allocation funds (i.e., DAU Indonesian acronym of *Dana Alokasi Umum* and DAK Indonesian acronym of *Dana Alokasi Khusus*, respectively). Balanced funds introduced significant changes as a consequence of the revenue-sharing system related to the exploitation of natural resources and the reorganisation of transfers through balance funds.

The regional share of funds originates from the “revenue of the land and property tax, the tax on acquisition of land and building rights, and natural resources.” In terms of regional shares of natural resources, “revenue of forestry natural resources, public mining and fishery sectors is divided into 20 percent for central government and 80 percent for the region” (Article 6, Paragraph 5). The revenues from oil and gas mining produced by a region are divided as follows: 85 percent of oil revenues produced in a region are allocated to the central government and 15 percent to the region, while 70 percent are allocated to the central government and 30 percent are allocated to the region (Article 6, Paragraph 6). Table 1 outlines the changes in revenue allocations from the exploitation of natural resources and the reorganisation of the transfer system.

**[Table 1 about here]**

The new transfer system was based on DAU or the general purpose allocation fund, which makes up 25 percent of the net domestic revenue of APBN or the central government's budget. Of this general grant, ten percent goes to the provinces and 90 percent goes to the regional government (Article 7, paragraphs 1 and 2). DAU replaced the past central government grants to the regions (and lower governmental levels), which were subsidies for autonomous regions (i.e., *Subsidi Daerah Otonom*-SDO) and the so-called "presidential instructions" (i.e., *Instruksi Presiden*-INPRES) grants.<sup>17</sup> This general grant therefore comprises old grants, giving full discretion to local governments to spend these funds according to their priorities.<sup>18</sup> Instead, as defined in the Article 8, DAK helps finance specific regional needs, including reforestation funds, of which 40 percent go to the producing area, while the rest go to the central government.

Moreover, according to Article 11, regions may enter into short- or long-term loans financed from domestic sources and, through the central government, from foreign funding sources as well. Article 16 defines the last source of regional revenues: the APBN may grant emergency funds for regions. Other sources of regional revenues are emergency funds for regions granted by APBN (Article 16).

In 2004, together with the revised regional autonomy law, Law 32/2004, the government made a number of changes to Indonesia's fiscal balancing law, Law 25/1999, with the adoption of Law 33/2004. More important changes concern the reforestation fund and DAU. Under Law 33/2004, DAU will account for at least 26 percent of total domestic revenues as recorded in the national budget. The amount of DAU each region shall receive also depends on the number of civil servants in the region.<sup>19</sup>

### **3. Regulating the mining, oil and gas industries in decentralised Indonesia**

In Indonesia, all natural resources are considered to be national assets. The responsibility for controlling mineral resources is currently divided between central and local governments. Mining activities are governed by Law Number 11 of 1967 (Mining Law 11), the implementing regulations 32/ 1969, 79/1992 and 75/2001 and the recently-issued new regulations 34 /2009 of the Ministry of Energy and Mineral Resources (MEMR) and 23/2010 on conduct of coal and mineral mining business activities. The latter regulations will facilitate implementing regulations that are required by the extensively updated New Mining Law 4/2009 on Mineral and Coal.

Mining Law 11 stipulates that the authority, control and regulation of strategic and vital mineral resources are vested with the MEMR and that only the authority, control and regulation over non-strategic and non-vital mineral resources are vested with regional governments. Law 4/2009 (Articles 6) separates the authority and responsibility for controlling mineral resources between the central and local governments, limiting the role of the central government (i.e., MEMR) to mainly policy-making, overseeing and directing the management of mining activities. In Articles 7 and 8, this law divides authority between the provincial and district government in the management of minerals and coal. Mining Law 11 groups the mineral resource business into three categories: strategic, vital, and nonstrategic and non-vital. Law 4/2009 (Article 34) groups the mineral business into two main categories: mineral mining<sup>20</sup> and coal mining, classifying the former ones into four other categories of radioactive, metal, non-metal and rock.

In terms of domestic and foreign company licenses, Mining Law 11 differentiates between local government-issued mining licenses (*Kuasa Pertambangan* - KP) and central government MEMR-issued licenses. KPs are available only to domestic miners, while the MEMR licenses include the parliament-ratified contracts of works (CoW), which were involved in the system of granting mining rights to foreign companies. A number of CoWs are also held by domestic companies, especially in the coal mining industry. The new law simplifies administration by eliminating distinctions between foreign and domestic miners. It also stipulates that the central government should issue licenses only for radioactive minerals, while other licenses will be issued by local governments.<sup>21</sup> In particular, under this law (Article 36), both domestic and foreign investors will operate mines under mining permits (*Izin Usaha Pertambangan* - IUP), which are split into two types of permits: exploration mining and production-operation mining permits. These IUPs will be mostly granted by regents/mayors or governors and by ministers only when the area crosses the limits of the provinces.

Although Law 4/2009 has somewhat simplified operating permits and given local governments greater control over national natural resources, though this law has been a source of controversy. The debate mainly relates to inconsistencies in limiting the size and boundary of exploration areas, the local government's implementation of the new law, including licensing and permitting procedures, the treatment of tax and royalties, and the continuation of existing, still-operational CoWs that were signed during Soeharto's time.<sup>22</sup> The implementation of this new mining law has also contributed to a more adverse investment climate in the sector due to bureaucratic fragmentation, inadequate local and regional institutional capacity, local government corruption and capture, the proliferation of local duties and levies, weak local legislation and ineffective law

enforcement.<sup>23</sup> However, the new regulation, 23/2010, attempts to provide clarification in key areas, such as existing contracts of works, government-issued licenses and the designation of mining areas.

The oil and gas industry was governed by a series of laws for more than four decades. Among them were Law 44 of 1960, regarding oil and gas exploration and production activities, laws 2 and 15 of 1962, regarding domestic oil obligations and Law 8 of 1971, regarding the state-owned oil and gas company Pertamina. In 2001, Indonesia's oil and gas law, Law 22 (Law 22/2001), replaced that series of laws.

Law 22/2001 (Article 5) defines upstream business activity as exploration and exploitation, which includes locating potential oil and gas reserves, drilling wells, the construction of transportation infrastructure, storage and processing facilities and the processing of natural gas into liquefied natural gas. According to Article 9, a variety of Indonesian and foreign companies (e.g., state-owned, regional administration-owned, business entities and “permanent establishments”) may engage in upstream business activities as long as they fulfil financial, regulatory, technical and operational requisites. According to articles such as 1, 4, 8, 44 and 45, 46 and 47, the government established an upstream Implementing Body (*Badan Pelaksana - BPMigas*) that was responsible for the regulation and supervision of upstream oil and gas business activities, as well as a downstream Regulatory Body (*Badan Pengatur - BPH Migas*) to regulate and supervise the downstream oil and gas business. These agencies replaced the national oil company's (Pertamina) historical regulatory and supervisory function, as well as its role as government representative countersigning production sharing contracts.

The implementation of the oil and gas Law 22/2001 has had mixed consequences for the sector. Apart from the obvious changes in the scope of activities and work areas, the centralised role of BP Migas in granting exploration and development licenses, countersigning cooperation contracts and monitoring project expenditures remains similar to Pertamina's and MEMR's historical roles. However, the planned introduction of domestic gas obligations could reduce the investment incentives of companies that are already concerned about low local gas prices.

#### **4. Management of the natural resources industry during ongoing decentralisation<sup>24</sup>**

Following the 1999 decentralisation laws, the Indonesian central government transferred a considerable degree of authority, responsibilities and functions to local governments, to districts and municipalities. This devolution of power occurred across the state's administrative apparatus and in broad sectors of the national economy, with particular implications for the natural resources sector.

Regional natural resources and revenues were in fact among the most important factors that drove the decentralisation process. As shown in Tables 2a and 2b, the natural resource sector, which includes oil and gas, coal and metal mining, as well as forestry, fishery and agricultural production, collectively makes up 25 percent of the country's GDP and 44 percent of the country's exports. Oil, gas and mining contribute almost three-fifths of the natural resource sector's GDP and two-thirds of overall sector exports.<sup>25</sup>

**[Tables 2a and 2b about here]**

It is important to recognise the implications of decentralisation on the natural resources sector's management, especially considering how important they are for the national economy. The consequence of Indonesia's re-organisation in terms of political divisions is briefly discussed in Section 4.1. Furthermore, decentralisation has increased interregional differentiation and income disparities (see Section 4.2), which in turn has a direct effect on industry practice and investments, especially in the mining sector (Section 4.3).

#### **4.1. Administrative proliferation**

Indonesia's decentralisation has precipitated the reorganisation of administrative and fiscal authority by devolving power to regional government levels. This reorganisation has had unexpected consequences. The devolution of power to districts and municipalities, and the increase in natural resource revenue-sharing, triggered the proliferation not only of new districts and municipalities, but also in a few cases of provinces. This proliferation was prevalent in natural resource-rich and ethnically more distinct districts and municipalities. There were strong incentives for local governments to carve out smaller autonomous jurisdictions with their own revenues and (partially) discretionary budgets.

As shown in Table 3, prior to the decentralisation laws, Indonesia had 26 provinces and 310 districts and municipalities. From 1999 to 2004, the number of provinces increased to 33, and by late 2008, the number of districts and municipalities increased to more than 490.

This proliferation took place notwithstanding the formation of new regions was stipulated to be under central governmental control. According to Law 22/1999 (Article 5), regions shall be formed based on specific considerations of economic capacity and potential, socio-politics and size and that the formation, elimination, division or merger of regions should be ratified by law.<sup>26</sup> Province proliferation has ceased since Law 32/2004 was enacted to make such proliferation much more difficult.<sup>27</sup>

**[Table 3 about here]**

#### **4.2. Regional disparity and fiscal imbalance**

Although the central government continues to maintain influence in regional and local fiscal policies through the balanced allocation funds, Law 25/1999 markedly increased natural resources revenue sharing. This has been accompanied by more autonomy in local fiscal policies and higher discretion in local budgeting and expenditure control. Thus, resource-rich provinces (their districts and municipalities) have increased their financial capabilities and thereby were incentivised to demand more administrative autonomy.<sup>28</sup> Table 4a shows that among the most important mining, oil and gas producer provinces are East Kalimantan and Riau (both accounting for more than 20 percent of the country's total production in 2008) and the special autonomous provinces —Aceh and Papua.<sup>29</sup>

**[Table 4a about here]**

Concurrently, the agricultural sector is dominated by the food crop-producing provinces in the

country's most densely populated island of Java, enjoying one third of the country's agriculture, forestry and fishery production in 2008 (see Table 4b). The forestry and fishery sectors, while standing to gain from Law 25/1999, generate comparatively lower aggregate revenues than the oil, gas and mining sector.. Notable, significant portions of the forestry (e.g., timber), plantation (e.g., palm oil) and other non-food crop agricultural resources, are located in the same oil, gas and mining-rich provinces as Riau, Aceh and East Kalimantan. Table 4b shows these provinces' shares of agriculture, forestry and fishery production.

**[Table 4b about here]**

Because fiscal decentralisation increased the percentage of revenues from natural resource sectors that would be transferred to the districts and municipal governments (as shown in Table 1), the largest beneficiaries of the fiscal decentralisation laws are districts and municipalities that are rich in natural resources, especially those rich in oil, gas, mineral and coal resources. However, the uneven distribution of natural resources across the country has resulted in interregional differentiation and income disparity. Districts and municipalities with active oil and gas, mining and forestry sectors benefit from higher revenue-sharing schemes and more autonomy in granting exploration and exploitation licenses. They also have more autonomy to increase the variety and levels of local taxes and levies, resulting in absolute and relative levels of local revenue. This situation amplifies the interregional disparity.<sup>30</sup> Besides, property and land transfer taxes (which traditionally have been the domains of provincial and local governments), as well as fuel taxes (made available to provincial and local governments for the first time under Law 18/1997), are generally not sufficient to correct these imbalances.<sup>31</sup>

In 2000, for example, the central government developed an allocation formula for general grants (DAU) to help equalise funding between resource-rich and resource-poor regions. Thus, the resource-poor regions were likely to continue to depend on fiscal transfers from the central government.<sup>32</sup> These intergovernmental transfers were supposed to reduce fiscal imbalances and counterbalance differences in fiscal capacities between rich and poor provinces. Consequently, although the increase in local government revenue-sharing helps reduce the current “vertical imbalance”, i.e., it creates a better fiscal balance between the central and local governments, it actually contributes to an increase in the “horizontal imbalance”, i.e., disparities in the fiscal balance among regions.

Paradoxically, resource-rich regions have neither successfully decreased their local budget deficits nor reduced their dependency on central government balance funds (DAU and DAK). It is remarkable that regional DAU allocation is based on differences between estimated expenditure requirements and fiscal capacity.. Instead, local government officials in resource-rich regions have developed a variety of investment projects to increase and/or maintain higher shares of DAU. While these investments could in theory support physical and social infrastructure projects, these funds are often diverted to less socially optimal projects that, for example, cater to local officials’ and business groups’ interests. Even in the case of the natural resource-rich special autonomous provinces of Aceh and Papua, that, together with East Kalimantan, are among the nation’s three highest per capita revenue provinces, centrally-allocated DAU and DAK have become the main sources of revenues, making up an average of over 40 percent (Aceh)<sup>33</sup> and 50 percent (Papua)<sup>34</sup> of provincial revenues.

#### **4.3. Institutional challenges and areas of uncertainty**

Decentralisation has had a number of challenges for Indonesia's natural resource industry, seriously impacting the industry's investment climate. There is, moreover, general uncertainty regarding the way in which local governments will continue implementing decentralisation laws and regulations, since the devolution of power was not always supported by the provision of an effective governance framework. A *de facto* decentralisation has therefore occurred when those social actors—based on their own understandings of what decentralisation means and applying those regulations that are advantageous to their own interests—have positioned themselves to take advantage of the natural resource sector.<sup>35</sup>

In Indonesia, as in other developing countries that exploit their natural resources for strategic domestic and export purposes, the resource industries are characterised by oligopolistic behaviour, an active role of government and close relationships between government bureaucrats and business groups. This is partially driven by the capital intensity and high-risk profile of these industries, as well as by the institutional history. Incidentally, this oligopolistic structure creates room for corrupt and opportunistic behaviours among social actors with vested interests. The oil and gas industries are associated with high capital costs and risk levels. Often, only large foreign and domestic private and state-owned companies are able to raise the funds required to make the risky investments necessary to operate in these sectors. As Table 5a shows, besides international players, there are only a few domestic Indonesian companies that actively operate oil and gas businesses.

Unlike Law 11/1067 which prohibits foreign ownership and due to the comparatively lower capital costs, especially for coal, the mining sector is dominated by domestic and domestic-

foreign joint venture companies (Table 5b). Foreign mining majors have faced challenges in Indonesia given the sector's comparatively less stable policy and fiscal environment as compared to those of the oil and gas industry.<sup>36</sup> For example, the U.S. companies Freeport and Newmont have been marred in continuing controversies about environmental pollution charges and partial sell-downs of their local affiliates. These companies, however, choose to maintain their large-scale operations because they control some of the world's largest and lowest-cost copper and gold mines.

**[Tables 5a and 5b about here]**

With decentralisation, domestic business groups shifted their attention to local governments. While their past focus was on central government, a consequence of the greater local power of district and municipality heads introducing local taxes, and especially approving mining licenses, has been the shift in lobbying interests.<sup>37</sup> The increased number of governmental organisational hierarchies, along geographic-political divisions, has been accompanied by the proliferation of new local taxes, levies, royalties, rules for community and social services, local environmental and processing regulations, approvals, and other formal and informal hurdles.<sup>38</sup> This has led to central-local policy inconsistencies, a confusing bureaucratic environment and unbalanced fiscal systems and local regulations.

The power of licensing, approvals and entry regulation has been, in many cases, delegated to the directly elected local government heads.<sup>39</sup> This has impacted the mining and forestry sector much more than it has impacted the oil and gas sector.<sup>40</sup> While new Mining Law 4/2009 has fully

embodied the decentralisation principle, simplified mining administration (e.g., the introduction of IUP) and introduced important provisions (e.g., environmental protection), it lacks of clear implementation rules and regulations. So, the degree to which the industry will be affected by the new mining law is yet unknown.

Mining and oil and gas laws leave indeed some issues unsolved. For example, although mining is among the crucial sub-segments of the energy and export-oriented sectors, Law 4/2009 is still unclear about the status of existing coal contracts that were previously endorsed by the central government and the parliament. While existing CoWs will remain valid, according to Regulation 23/2010, certain adjustments are yet to be made. Under the new mining law and its recent government regulation, existing KPs will continue operating under the new form of IUPs. However, the timing provided for conversion is narrow and the effectiveness of recent regulation remains to be seen. Although the new law might encourage small-scale investors (especially domestic ones), there is greater uncertainty around large-scale projects, as it does not offer the long-term protection required by such projects with significant investment and longer payback periods. There is additionally uncertainty regarding the foreign ownership divestment rule under the new mining law (Law 4/2009, Article 112).

The aforementioned situation has resulted in poor natural industry performance, including sub-optimal production growth rates reserve replacement ratios, high cost levels, and delayed royalty revenues.<sup>41</sup> Investors have also been dealing with local issues, such as areas of land clearing (e.g., for seismic surveys, drilling and facility construction) and protracted environmental impact studies (especially in protected forestry areas), thus exacerbating the adverse impact on the investment climate.

Furthermore, the decentralisation process has had serious environmental consequences due to conflicting laws and regulations. One well-known example is the growing conflict between mining production laws' stipulations and forest protection. Although this paper focuses on extractive industries, it is important to note that Indonesia has experienced an epidemic of illegal logging, especially since decentralisation.<sup>42</sup> It is estimated that illegal logging yielded nearly three times the quantity of wood that was produced by the legal timber industry.<sup>43</sup> Moreover, Indonesia is facing other serious environmental issues, such as deforestation, industrial water and household sewage pollution, urban air pollution, and smoke and haze from forest fires.

It is, however, important to underline that these implementation difficulties are common in a newly democratised and decentralised country, particularly considering the geographical, economical and social characteristics of Indonesia. Despite the difficulties faced during this first decade of decentralisation, Indonesia has achieved an overall improvement in public service delivery. Human development indicators have improved over the post-decentralisation years, as shown in Tables 6a, 6b and 6c.

The problems facing the natural resources industry exemplify the institutional challenges of the decentralisation process. On the one hand, natural resources-related laws are increasingly administered by local governments that need to cater to local socio-political objectives while concurrently developing expertise and capabilities to implement these laws competently and interact with business groups. On the other hand, the profusion of local laws in Indonesia creates uncertainty and increases the risk of discretionary interpretation and implementation of the laws,

which may lead to weak enforcement of the legal framework and abuse.<sup>44</sup> More generally, observations are made whereby the incidence of local capture and corruption could indeed rise during the years following the decentralisation.<sup>45</sup>

## **5. Final Remarks**

Indonesia's stage-wise administrative and fiscal decentralisation process was initiated after its democratisation through a series of legislative changes in 1999. Local governments have gained increased autonomy through the transfer of authority and the devolution of power, and they have enjoyed increased fiscal benefits. Especially districts and municipalities that are rich in oil, gas and mining resources have become key beneficiaries of the fiscal decentralisation and have taken advantage of regional autonomy. The natural resources sector in fact played, and still plays, a key role in the decentralisation of the country. These sectors, especially the extraction industries of oil, gas and mining, are key components of the Indonesian economy. Indeed, one of the most important mechanisms that affected and initiated the decentralisation process was the pressure from resource-rich provinces with higher revenue contributions and stronger bargaining positions that were seeking increased local autonomy.

The consequences of Indonesia's decentralisation on the natural resources and extractive industries are manifold. First, the change from historically centralised policies and regulations has resulted in more autonomous natural resource-rich regions with higher levels of fiscal revenues and discretionary spending power. This autonomy, together with the increase in revenue-sharing in prevalently natural resource-rich and ethnically more distinct regions, triggered the proliferation of new districts, municipalities and provinces.

Second, Indonesia's decentralisation has increased the number of governmental hierarchies along geographic-political divisions. This increase resulted in multiple new decision-making levels, a confusing bureaucratic environment, and central-local policy inconsistencies, which were exacerbated by inexperienced local governments with limited institutional capacities.

Moreover, the oligopolistic nature of extractive industries promotes close relationships between social actors with vested interests (e.g., government officials, companies, economic elites). As a result, the increased power of local government has also been accompanied by increases in local corruption and lobbying activities, particularly in the rich provinces. This has increased the potential for moral hazard, reckless spending, the abuse of power, illegal charges and levies, misappropriation of public funds, local capture and the dominance of narrow interests, all of which have negative repercussions for industry performance, transparency and the investment climate. Decentralisation in Indonesia's natural resource-rich regions demonstrates the resilience of the informal rules and networks that governed behaviours before 1998; thus, "old" rules still drive the "new" decentralised Indonesia.

The investment climate has also been affected by the inconsistencies between central-local legal policies as well as by laws with ambiguous or open matters to be determined by subsequent regulations. Besides, districts and municipalities have taken actions regarding natural resources based on their own understandings of decentralisation, which frequently leads to the inconsistent implementation of laws and regulations (i.e., *de facto* decentralisation), which further affects the investment climate. However, the constant issuance of replacing (or complementary) implementing regulations (e.g., Ministerial Regulation 34/2009 and the subsequent Regulation

23/2010) makes it difficult for local governments to apply the changing laws and regulations capably and consistently.

Moreover, regional resource endowments and asymmetrical local government fiscal and administrative capacities has increased regional disparities. Due to the increased revenue bases and local autonomy the largest beneficiaries of the fiscal decentralisation law has been districts and municipalities that are rich in natural resources. Many regions though, including resource-rich provinces, still see fiscal transfers from the central government as the main sources of revenues (e.g., Aceh, Papua).

Finally, there are two crucial considerations that both central and local governments need to take into account in determining their natural resource policy. First, a truly empowered local community is necessary to ensure local political participation, transparency and accountability. Second, the country's economic and environmental sustainability must be considered. Despite the country's significant dependence on natural resource revenues, it still lacks the optimal regulatory regime to safeguard its resources adequately in the long term. While laws 23/2001 and 4/2009 include selected environmental provisions, they are still vaguely defined. An explicit regulatory framework for resource utilisation, allocation and protection, with clear roles at different levels of government, and governance will ensure not only social and economic well-being in national but also in international dimensions.

**Table 1:**

Changes in the distribution of natural resource revenues  
(Source: Ford and Brodjonegoro 2003, p. 26, updated by authors)

Revenue Source	Old sharing arrangement	Major change	New sharing arrangement
Oil revenues <sup>a,b</sup> ( <i>Penerimaan negara dari pertambangan minyak bumi</i> )	100% Centre	Assignment of revenues after tax deduction to regional governments	85% Centre 3% Province of origin 6% District/municipality ( <i>kabupaten/kota</i> ) of origin 6% Other districts/municipalities in the province of origin
Liquid Natural Gas revenues <sup>a,b</sup> ( <i>Penerimaan negara dari pertambangan gas</i> )	100% Centre	Assignment of revenues after tax deduction to regional governments	70% Centre 6% Province of origin 12% District/municipality of origin 12% Other districts/municipalities in the province of origin
Reforestation fee ( <i>Dana Reboisasi</i> )	100% Centre	Regional government component integrated into specific grants	60% Centre 40% Province of origin
License fee on forest Enterprises ( <i>Iuran Hak Pengusahaan Hutan</i> )	55% Centre 30% Provinces 15% Districts/municipality	Continued with new sharing arrangement	20 % Centre 16% Province 64% District/municipality
Forest Production Royalty ( <i>Provisi Sumber Daya Hutan</i> )	Of the IHH ( <i>Iuran Hasil Hutan</i> ): 30% Centre 70% Provinces	Continued with new sharing arrangement favouring districts/municipalities in provinces of origin	20% Centre 16% Province 32% District/municipality of origin 32% Other districts/municipalities in the province of origin
Mining land rents ( <i>Iuran Tetap Sektor Pertambangan</i> )	65% Centre 19% Provinces 16% District/municipality	Continued with new sharing arrangement	20% Centre 16% Province 64% Districts/municipalities
Mining royalties ( <i>Iuran Eksploitasi</i> )	30% Centre 56% Provinces 14% Districts	Continued with new sharing arrangement favouring districts/municipalities in provinces of origin	20% Centre 16% Province 32% District/municipality of origin 32% Other districts/municipalities in the province of origin
Fishery Enterprises Fee ( <i>Pungutan Pengusahaan Perikanan</i> )	Non existent	Newly introduced	20% Centre 80% equally distributed to districts/municipalities
Fee on Fishery Income ( <i>Pungutan Hasil Perikanan</i> )	Non existent	Newly introduced	20% Centre 80% equally distributed to districts/municipalities

- (a) Additional shares of oil and gas revenues for the provinces of Nanggroe Aceh Darussalam (former Aceh) and Papua are stipulated in the Special Autonomy Laws 18/2001 21/2001, respectively. In particular, under Law 18/2001, provincial shares of natural resource revenues include 70 percent of gas and oil revenues, and 80 percent of revenues from forestry, fisheries, and general mining. Increased oil and gas revenues are reduced after eight years. Under Law 21/2001, Papua also receives 70 percent of natural oil and LGN taxes and 80 percent of forestry, fishery and general mining. Oil and gas revenues, however, are decreased to 50 percent after 25 years.
- (b) According to Law 33/2004 (which replaced Law 25/1999), the share of oil and liquid natural gas revenues has been changed so that the central government (the "Centre" above) would receive 84.5 percent and 69.5 percent of oil and gas revenues, respectively. The share of the regions remains the same. The difference of 0.5 percent of the oil and gas revenues will be allocated for basic education, from which provinces will receive 0.1 percent, originating districts will receive 0.2 percent, and other districts within the provinces will get 0.2 percent.

**Table 2a:**  
GDP by relevant sectors (figures in Rupiah Billion)  
(Source: Central Statistics Agency, March 2009)

Industrial Origin	2004	2005	2006	2007	2008	Share of GDP (2008)
<b>1. Agriculture, Livestock, Forestry and Fishery</b>	<b>329,125</b>	<b>364,169</b>	<b>433,223</b>	<b>541,593</b>	<b>713,291</b>	<b>14.4%</b>
a. Food Crops	165,558	181,332	214,346	265,091	347,842	
b. Estate Crops	49,631	56,434	63,401	81,596	106,186	
c. Livestock and Its Product.	40,635	44,203	51,075	61,325	82,835	
d. Forestry(*)	20,290	22,562	30,066	35,884	39,992	
e. Fishery(*)	53,011	59,639	74,335	97,697	136,436	
<b>2. Mining and Quarrying</b>	<b>205,252</b>	<b>309,014</b>	<b>366,505</b>	<b>441,007</b>	<b>543,364</b>	<b>11.0%</b>
a. Oil & Gas (*)	118,485	177,606	200,082	234,189	285,583	
b. Coal and Mineral Mining(*)	65,122	104,599	130,701	160,607	195,185	
<b>3. Manufacturing Industry</b>	<b>644,343</b>	<b>760,361</b>	<b>919,539</b>	<b>1,068,654</b>	<b>1,380,732</b>	<b>27.9%</b>
a. Oil and Gas Manufacturing Industry	94,263	138,441	172,095	182,324	242,061	
• Petroleum Refinery	59,062	89,630	117,952	122,118	148,583	
• Liquefied Natural Gas (LNG)	35,201	48,811	54,143	60,206	93,479	
b. Non-Oil & Gas Manufacturing Industry	550,079	621,920	747,438	886,330	1,138,670	
<b>Gross Domestic Product</b>	<b>2,295,826</b>	<b>2,774,281</b>	<b>3,339,217</b>	<b>3,949,321</b>	<b>4,954,029</b>	<b>100.0%</b>

(\*) Included in the natural resource revenue-sharing scheme

**Table 2b:**

Exports by relevant sectors (USD Million)

(Source: *Badan Pusat Statistik*, Indonesia's Central Statistics Agency, October 2009, available online at [www.bps.go.id](http://www.bps.go.id))

Industrial Origin	2005	2006	2007	2008	Share of country total (2008)
Crude oil	8,146	8,169	9,226	12,419	
Petroleum products	1,932	2,844	2,879	3,547	
Gas	9,154	10,197	9,984	13,161	
<b>Oil &amp; Gas</b>	<b>19,232</b>	<b>21,210</b>	<b>22,089</b>	<b>29,127</b>	<b>21.3%</b>
Coal	4,354	6,086	6,681	10,485	
Copper	3,311	4,646	4,213	3,345	
Palm Oil	3,756	4,818	7,869	12,376	
Plywood	1,375	1,507	1,525	1,527	
Selected agriculture (*)	2,042	2,412	2,460	3,197	
<b>Mining &amp; Agriculture</b>	<b>14,838</b>	<b>19,469</b>	<b>22,748</b>	<b>30,930</b>	<b>22.6%</b>
Manufacturing & Other	51,590	60,120	69,264	76,963	56.2%
<b>Total Indonesia</b>	<b>85,660</b>	<b>100,799</b>	<b>114,101</b>	<b>137,020</b>	<b>100.0%</b>

(\*) Including coffee, tea, tobacco, cocoa, shrimp, and tuna

**Table 3:**

## Administrative jurisdictions in Indonesia

(Source: *Badan Pusat Statistik*, Indonesia's Central Statistics Agency, October 2009, available online at [www.bps.go.id](http://www.bps.go.id))

Year	Provinces	Districts (Regencies)	Municipalities	Districts & Municipalities
1998	26	249	65	314
1999	27	268	73	341
2000	30	268	73	341
2001	31	268	85	353
2002	32	302	89	391
2003	32	349	91	440
2004	33	349	91	440
2005	33	349	91	440
2006	33	349	91	440
2007	33	370	95	465
2008	33	387	96	483
June 2009	33	397	98	495

**Table 4a:**

## GDP by key provinces' share of oil, gas, and mining sectors (figures in Rupiah Billion)

(Source: *Badan Pusat Statistik*, Indonesia's Central Statistics Agency, October 2009, available online at [www.bps.go.id](http://www.bps.go.id))

Mining & Quarrying GRDP	2006	2007	2008	Share of country's total (2008)
East Kalimantan	83,608	88,278	144,509	26.6%
Riau	70,428	91,120	123,782	22.8%
Papua(*)	32,246	38,056	32,933	6.1%
South Sumatera	25,061	27,412	34,008	6.3%
Nanggroe Aceh Darussalam	19,624	15,984	13,879	2.6%
West Java	12,934	13,010	14,454	2.7%
East Java	9,711	11,305	13,517	2.5%
<b>Total Indonesia</b>	<b>366,521</b>	<b>441,007</b>	<b>543,364</b>	<b>100.0%</b>

(\*) Papua province, excludes West Papua.

**Table 4b:**

GDP by key provinces' share of agriculture, forestry and fishery sectors (figures in Rupiah Billion)  
(Source: *Badan Pusat Statistik*, Indonesia's Central Statistics Agency, October 2009,  
available online at [www.bps.go.id](http://www.bps.go.id))

<b>Agro/Forestry/Fishery GRDP</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>Share of country's total (2008)</b>
East Java	80,746	89,442	102,995	14.4%
Central Java	57,365	63,832	71,130	10.0%
West Java	52,586	62,895	67,849	9.5%
Riau	36,294	43,595	53,138	7.4%
North Sumatra	35,808	41,010	48,872	6.9%
Lampung	18,167	22,733	28,774	4.0%
South Sulawesi	18,513	20,900	25,072	3.5%
South Sumatera	17,300	20,080	22,966	3.2%
Nanggroe Aceh Darussalam	16,756	18,136	19,256	2.7%
West Sumatra	13,397	14,755	18,319	2.6%
East Kalimantan	10,793	11,945	15,664	2.2%
West Kalimantan	10,181	11,437	12,835	1.8%
<b>Total Indonesia</b>	<b>433,223</b>	<b>541,593</b>	<b>713,291</b>	<b>100.0%</b>

**Table 5a:**  
Largest producers of oil and gas in Indonesia  
(Source: "Indonesian Oil & Condensate and Gas Production",  
*The Indonesian Petro Energy* (December 2009), pp. 42-3)

Companies	Est. 2009 Oil production (*) ('000 bpd)	Est. 2009 Gas production ('mn scfd)	Foreign vs. Domestic
Chevron (**)	403	174	US/international major
Pertamina (***)	175	1,259	Domestic state-owned
Total	80	2,516	French/international major
ExxonMobil		664	US/ international major
BP		215	UK/ international major
CNOOC	43	150	Chinese state-owned major
ConocoPhillips	73	1,277	US/ international major
Medco Energi	32	102	Domestic private
ENI		215	US/ international major
PetroChina	64	327	Chinese state-owned major

(\*) Including condensates

(\*\*) Including Chevron Pacific Indonesia, Chevron Indonesia Company

(\*\*\*) Including Joint Operating Body (JOB), Technical Assistance Contract (TAC), Bumi Siak Pusako and Offshore North West Java

**Table 5b:**  
Largest coal and metal producers in Indonesia  
(Source: MacQuarie Group, Company Reports [2009])

Companies	2009 production (*)	Products	Foreign vs. Domestic
Bumi Resources	59	Coal	Domestic/Indian joint venture
Adaro	41	Coal	Domestic private
Indika-Kideco	25	Coal	Domestic/Korean joint venture
Banpu-ITMG	21	Coal	Domestic/Thai joint venture
Berau Coal	14	Coal	Domestic private
Bukit Asam	12	Coal	Domestic state-owned
Gunung Bayan	12	Coal	Domestic/Malaysian-owned
Straits Asia	9	Coal	Asian private
Freeport Indonesia (2010 estimates)	1.2 billion lbs 1.7 million oz	Copper Gold	US/international major
Newmont Indonesia (2009 estimates)	0.22 billion lbs 0.24 million oz	Copper Gold	US/international major
Inco Indonesia (2009)	67,329 tons	Nickel matte	Canadian/international major
Aneka Tambang (2009)	12,550 tons 5.9 million tons 2,626 kg 22,589 kg 0.8 million tons	Ferro- Nickel Nickel ore Gold Silver Bauxite	Domestic state-owned

(\*) million tons (unless otherwise stated)

**Table 6a:**  
Life expectancy by island average\*  
(Source: *Badan Pusat Statistik*, Indonesia's Central Statistics Agency, December 2009,  
available online at [www.bps.go.id](http://www.bps.go.id))

Island	1999	2002	2004	2005	2008
Sumatra	66.4	66.5	68.0	68.6	71.0
Java	68.0	67.8	68.7	69.3	72.5
Bali & Nusa Tenggara	63.6	64.4	64.7	65.3	69.9
Kalimantan	65.8	66.1	66.5	67.1	70.9
Sulawesi	66.0	66.4	66.9	67.3	70.5
Maluku & Papua	66.0	64.6	65.5	66.2	69.2
<b>Indonesia average</b>	<b>66.2</b>	<b>66.2</b>	<b>67.6</b>	<b>68.1</b>	<b>70.5</b>

(\*) Arithmetic average of provincial data

**Table 6b:**

Mean schooling by island average\*

(Source: *Badan Pusat Statistik*, Indonesia's Central Statistics Agency, December 2009, available online at [www.bps.go.id](http://www.bps.go.id))

Islands	1999	2002	2004	2005	2008
Sumatra	7.1	7.6	7.7	7.8	8.3
Java	7.3	7.8	7.8	8.0	8.5
Bali & Nusa Tenggara	5.9	6.5	6.6	6.8	7.5
Kalimantan	6.8	7.4	7.5	7.6	8.0
Sulawesi	7.0	7.3	7.2	7.3	7.8
Maluku & Papua	6.6	7.5	7.5	7.6	8.1
<b>Indonesia average</b>	<b>6.7</b>	<b>7.1</b>	<b>7.2</b>	<b>7.3</b>	<b>8.0</b>

(\*) Arithmetic average of provincial data

**Table 6c:**

Gross Regional Domestic Product (GRDP) growth rates by island average\*

(Source: *Badan Pusat Statistik*, Indonesia's Central Statistics Agency, December 2009, available online at [www.bps.go.id](http://www.bps.go.id))

Islands	1994-1996	1999-2000	2001-2002	2006-2008(**)
Sumatra	7.1%	1.5%	1.9%	4.7%
Java	8.2%	0.8%	2.0%	5.7%
Bali & Nusa Tenggara	8.3%	6.0%	2.3%	4.9%
Kalimantan	9.3%	1.5%	1.8%	5.3%
Sulawesi	8.0%	2.5%	2.5%	7.4%
Maluku & Papua	12.0%	0.0%	2.5%	4.1%
<b>Indonesia average</b>	<b>7.1%</b>	<b>4.6%</b>	<b>3.2%</b>	<b>5.0%</b>

(\*) Arithmetic average of provincial data

(\*\*) 2008 figures are preliminary estimates

<sup>1</sup> Krister Andersson and Elinor Ostrom, "Analyzing Decentralized Resource Regimes from a Polycentric Perspective", *Policy Science* vol. 41 (2008), p. 72.

<sup>2</sup> The Indonesia's Forestry Ministry estimated forest coverage area of about 138 million hectares as of June 2009, while a team of the National Coordinating Agency for Surveys and Mapping estimated forest areas of about 117million hectares. According to the State of the World's Forests 2007 published by the United Nation Food and Agriculture Organization, Indonesia's forest cover was of about 89 million hectares in 2005, which represented about the 49 percent of the total land area. The same report estimated Indonesia's total land area as being about 190.5 hectares in 2005, which almost coincides with Indonesian Central Statistics Agency (March 2009) estimations of 191 million hectares of land area, including 26 million hectares of registered forest concessions.

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<sup>3</sup> For example, according to the International Energy Agency's Natural Gas Market Review 2008 (Paris Cedex: OECD/IEA, 2008), pp. 102 and 194, Indonesia is among the world's top four Liquid Natural Gas (LNG) producers with Qatar, Malaysia and Australia. According to Energy Information Administration, International Energy Outlook 2009 (Washington DC: EIA, 2009), pp. 55, it is among the world's top two coal exporters with Australia. Indonesia is also among the world's top three producers of plywood together with Malaysia and China [International Tropical Timber Organization, Annual Review and Assessment of the World Timber Situation, (ITTO: Yokohama, 2008), p. 28]; the world's second tin producer after China [James F. Carlin, Jr. "Tin", in 2006 Minerals Yearbook, (US Geological Survey, May 2008)]; a palm oil world leader producer with Malaysia [US Department of Agriculture, Foreign Intelligence Report, Commodity Intelligence Report, Indonesia: Palm oil production prospects continue to grow (Washington DC: USDA, December 2007)] as well as a copper world leader producer after Chile [Daniel L. Edelstein, "Copper", in 2007 Minerals Yearbook, US Geological Survey (USGS, September 2009)].

<sup>4</sup> The fight for independence in Aceh actually started more than three decades ago and was gradually addressed through a series of initiatives, such as President Megawati's Aceh Special Autonomy Law 18/2001 to create the province of Nanggroe Aceh Darussalam, followed by President Yudhoyono's Helsinki Memorandum of Understanding in July 2005, and the Governing Law for Aceh in July 2006.

<sup>5</sup> Separatist movements in metal and gas-rich West Papua resulted in President Megawati's Papua Special Autonomy Law 21/2001. West Papua was initially under the name of *Irian Jaya Barat* in 2003, but it was renamed to *Papua Barat* (West Papua) in 2007.

<sup>6</sup> The Special Autonomy Laws for Aceh and Papua were subsequently negotiated and granted in 2001 due to the inability of the 1999 decentralisation laws to solve the separatist conflicts in these two resource rich provinces.

<sup>7</sup> At the time, local governments only received a very small proportion of their own sources of revenues.

<sup>8</sup> I Ketut Putra Erawan, "Political Reform and Regional Politics in Indonesia," *Asian Survey* vol. 39, no. 4 (1999), p. 589.

<sup>9</sup> Most resource-rich areas had Gross Regional Domestic Product (GRDP) growth rates lower than the Indonesian average. For example, despite the fact that East Kalimantan was one of the richest regions in natural resources (with the highest regional GRDP per capita), it had the lowest yearly growth rate of 3.7 percent, compared to Indonesia's average of 6.78 percent. In recent years, the situation has remained similar. According to BPS-Statistics Indonesia, East Kalimantan's GRDP growth rate was of 2 percent in 2005-2007 compared to the five to six percent of other provinces in the same years. See Putra Erawan, *Political Reforms and Regional Politics in Indonesia*, pp. 590-591.

<sup>10</sup> According to Putra Erawan (1999, p. 592), among those provinces put at a disadvantage by at the time's current financial system were Aceh, Riau, South Sumatra, and East Kalimantan. These natural resource-rich areas not only experienced slower economic development, but also were not treated fairly by the resource allocation system. In recent years, only South Sumatra has been growing at a higher rate than before decentralization of 5.3 percent.

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<sup>11</sup> For an overview of Law 22/1999, see Christopher Barr, Ida Aju Pradnja Resosudarmo, Ahmad Dermawan and John McCarthy, eds., *Decentralization of Forest Administration in Indonesia: Implications for Forest Sustainability, Economic Development and Community Livelihoods* (Bogor, Indonesia: Center for International Forestry Research, 2006), pp. 37-40.

<sup>12</sup> Rokhmin Dahuri, Maurice Knight and Jason Patlis, "Integrated Coastal Management in a Decentralized Indonesia: How It Can Work," *Pesisir & Lautan*, vol. 4, no.1 (2001), pp. 25-6.

<sup>13</sup> Dahuri et al, "Integrated coastal management", p. 26.

<sup>14</sup> For more details see Table 3 in section 4.1.

<sup>15</sup> The issuance of Government Regulation 34/2002, the principal implementing regulation for Law 41/1999, shows Megawati's efforts to re-capture central controls. This Regulation provides the framework to *recentralized* the forestry sector administration (e.g., harvesting, processing, and marketing of forest products, particularly timber). See for example, Marco Bünte, "Indonesia Protected Decentralization: contested reforms and their unintended consequences," in Marco Bünte and Andreas Ufen eds., *Democratization in Post-Soeharto's Indonesia* (Oxon: Routledge, 2009).

<sup>16</sup> For an overview see Maribeth Erb and Priyambudi Sulistiyanto, eds., *Deepening Democracy in Indonesia?: Direct Elections for Local Leaders (Pilkada)* (Singapore: Institute of Southeast Asian Studies, 2009); and Aris Ananta, Evi Nurvidya Arifin, Leo Suryadinata, *Emerging Deocracy in Indonesia* (Singapore: Institute of Southeast Asian Studies, 2005).

<sup>17</sup> Nevertheless, special INPRES funds are still possible depending on the discretion of the central government, such as for example the special INPRES 5/2007 for the development of the new West Papua province.

<sup>18</sup> In contrast, the budgetary and fiscal arrangement during Soeharto's era was completely centralized: budget allocation was a top-down decision process, while expenditure estimates and programs were typically proposed and implemented by the regional government in a bottom-up fashion.

<sup>19</sup> Barr et al, *Decentralization of Forest Administration in Indonesia*, p. 65.

<sup>20</sup> Article 1 defines mineral mining as "any mining of mineral assemblages in the form of ores or rocks other than geothermal, petroleum and natural gas as well as ground water."

<sup>21</sup> MoEMR shall grant IUPs if the area to be covered falls partly within the boundaries of more than province.

<sup>22</sup> According to Article 169, "contracts of works and coal contracts of works that already exist prior to the effectiveness of this Law shall remain valid until the contracts/agreements expire." There are though some large foreign miners contracts granted during Soeharto's regime running for another 30 years.

<sup>23</sup> Balbir Bhasin and Sivakumar Venkataramany, "Mining Law and Policy: Replacing the 'Contract of Work' System in Indonesia," *CEPMLP Research* (2008). Available from <http://www.dundee.ac.uk/cepmlp/>.

<sup>24</sup> This section has used primary field information based on authors' experiences dealing with public sector, private companies and institutional investors related to the Indonesian natural resource industry.

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<sup>25</sup> This percentage contribution excludes food crops that are targeted primarily for domestic consumption and which are not included in Law 25/1999.

<sup>26</sup> Except for the amendment of boundaries, which does not cause elimination or change that can be stipulated by government regulation.

<sup>27</sup> In Article 4 of Law 32/2004, the creation of new regions requires ratification by law.

<sup>28</sup> Indeed, since 2004, not only the president and provincial governors but also district and municipal heads have been directly elected. The latter are responsible for and have executive and budgeting powers over their respective districts and municipalities. Provincial governors oversee inter-district and inter-municipal matters, such as transport and infrastructure.

<sup>29</sup> Both East Kalimantan and Riau provinces also own large areas of productive forests.

<sup>30</sup> Bhasin and Venkataramany, *Mining Law and Policy*, p. 7-9. See also See, Putra Erawan, *Political Reform*.

<sup>31</sup> Asanuma and Brodjonegoro, *Regional Autonomy*, p. 8.

<sup>32</sup> Shinji Asanuma and Bambang Brodjonegoro, "Regional autonomy and fiscal decentralization in democratic Indonesia," (paper presented at the International Symposium on Decentralization and Economic Development in Asian Countries, Tokyo, Japan, 2000).

<sup>33</sup> World Bank. *Aceh Public Expenditure Analysis: Spending for Reconstruction and Poverty Reduction*, Jakarta and Washington DC: World Bank, 2008, p. 26.

<sup>34</sup> World Bank. *Papua Public Expenditure Analysis: Regional Finance and Service Delivery in Indonesia's Most Remote Region*, Jakarta and Washington DC: World Bank, 2005, p. 19.

<sup>35</sup> Barr et al, *Decentralization of Forest Administration in Indonesia*, p. 109.

<sup>36</sup> High-profile examples include BHP's, BP's and Rio Tinto's highly publicized divestitures of their world-class coal assets in 2003.

<sup>37</sup> Many scholars have looked into the problems of corruption and capture, such as Kuncoro, *Corruption, Decentralization and Democracy in Indonesia* and Azis, *Institutional Constraints*. See also Vernon Henderson and Ari Kuncoro, "Corruption in Indonesia" (NBER Working Paper 10674, 2004) and Vernon Henderson and Ari Kuncoro, "Sick of local government corruption? Vote Islamic" (NBER Working Paper 12110, 2006).

<sup>38</sup> See, for example, Bhasin and Venkataramany, "Mining Law and Policy" and Makarim and Taira, *Minerals and Coal Law in Indonesia* (Jakarta: Makarim & Taira Legal Updates, 2009).

<sup>39</sup> This has led to other common practices such as capture of profitable projects by insufficiently experienced and underfunded local groups and insufficiently trained and under-compensated bureaucrats dealing with licensing procedures and revenue-cost audits (e.g., for royalty and levy calculations).

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<sup>40</sup> For a complete review of decentralisation's impact on the forestry sector, see Barr et al, *Decentralization of Forest Administration in Indonesia*.

<sup>41</sup> Project implementation, and thus revenues, are often delayed when under-funded or inexperienced companies win projects, and instead of investing and operating themselves seek to resell the project to the actual industrial investors.

<sup>42</sup> See, for example, John McCarthy, "Turning in circles: district governance, illegal logging, and environmental decline in Sumatra, Indonesia," *Society and Natural Resources*, vol. 15, issue 10 (2002) and also Luke Lazarus Arnold, "Deforestation in Decentralised Indonesia: What's Law Got to Do with It?" *Law, Environment and Development Journal* (2008), pp. 75-101, available at <http://www.lead-journal.org/content/08075.pdf>

<sup>43</sup> World Bank, *Indonesia environment and natural resource management in a time of transition*, World Bank (2001). Available from <<http://WBLN0018.worldbank.org>>

<sup>44</sup> World Bank, *East Asia Decentralizes: Making Local Government Work* (Washington DC: World Bank, 2005).

<sup>45</sup> Iwan Azis, "Institutional constraints and multiple equilibria in decentralization" *RURDS*, vol. 20, no. 1 (2008), p. 26-27.