Regimes, Mining Investment and Regulatory Risk in the Asia-Pacific Region: Comparative Evaluation and Policy Implications

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Abstract

This paper assesses the performance of regulatory regimes governing foreign mining investment in the Asia-Pacific region against the main criteria which determine the quality of a regulatory regime. The main argument is that the poor performance of the governance structures and non-performing regulatory regimes in the mining sector is behind the high level of risk for foreign mining investors, and the low levels of foreign investment in many of these countries. After surveying extant literature on regulatory regimes, the paper establishes a theoretical framework to assess the performance of regulatory regimes governing foreign mining investment in the Asia-Pacific region. This is followed by the critical and comparative analysis of the findings. The findings show considerable variance in the performance of regulatory regimes governing foreign mining investment across six jurisdictions in the Asia-Pacific region. Western Australia has the best performing regulatory regime, followed by China and India, while Indonesia, PNG and the Philippines have relatively poor performing regulatory regimes. Finally, policy recommendations to improve governance infrastructure in the sector are outlined. This paper, unique in its subject area, may assist regional governments, and possibly governments of other developing countries, in improving governance infrastructure in their mining sectors. Moreover, it may also reduce the level of regulatory risk and increase the amount of foreign investment in the sector.

1. INTRODUCTION

The Asia-Pacific region has substantial reserves of a wide variety of nonfuel minerals, including copper, gold, nickel, tin and many more. The most important mineral reserve-holders and producers in the region are China, India, Indonesia, Papua New Guinea (PNG) and the Philippines. Despite high mineral endowment, the regional supply of major nonfuel minerals is insufficient to satisfy the growing regional demand. This situation is a direct result of a substantial demand growth in China and India; continued high levels of consumption in resource-poor developed countries, such as Japan, South Korea, Singapore

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and Taiwan; and growing consumption by emerging market economies (EMEs), including Indonesia, Malaysia and Thailand (Fong-Sam, et al., 2007). Unsurprisingly, since the early 1990s, all the major nonfuel mineral producers in the region have passed new regulations aimed at attracting more foreign investment and ultimately increasing mineral production. As Table 1 shows, in the past decade, each of the countries surveyed made major changes to their regulatory regimes, intending to improve the investment environment for foreign mining companies. The trend toward regulatory reform has, to a large extent, been fuelled by the recent minerals ‘super cycle’, with remarkable increases in commodity prices due to heightened demand. In the case of India and Indonesia, this has led to a complete redrafting of the existing mining laws, while China, PNG, and the Philippines undertook more piecemeal changes to their mining legislation.

Table 1: Recent Favourable Regulatory Changes in the Regional Mining Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Regulatory Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>2006 MOLAR announced its intention to amend the provisions of the Mineral Resources Law to create a more attractive investment environment for foreign investors</td>
</tr>
<tr>
<td>2006 MOLAR issued the Notice of Further Regulating the Administration of the Grant of Mineral Rights, Guo Zi Fa [2006] No. 12 (Notice) to standardise procedures for the grant of exploration and mining rights</td>
<td></td>
</tr>
<tr>
<td>2004 Projects that do not require government financing and that fall into the ‘permitted’ and ‘encouraged’ categories will be approved automatically</td>
<td></td>
</tr>
<tr>
<td>2000 China issued the “Opinion on Further Encouraging Foreign Businesses to Make Investment in Exploring and Exploiting Mineral Resources Other Than Oil and Gas”</td>
<td></td>
</tr>
<tr>
<td>1993 China allows foreign investment in prospecting and mining</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>2008 The Government gave its approval to the new National Mineral Policy 2008</td>
</tr>
<tr>
<td>2008 Government allows 100% foreign-owned FDI in mining and mining-related industries</td>
<td></td>
</tr>
<tr>
<td>2006 Investment policy liberalised</td>
<td></td>
</tr>
<tr>
<td>2000 New foreign investment guidelines issued presenting new opportunities for mining investors</td>
<td></td>
</tr>
<tr>
<td>1997 FDI policy in the mining sector further liberalised to incorporate “automatic approval”</td>
<td></td>
</tr>
<tr>
<td>1994 Legislative changes consequent to National Mineral Policy</td>
<td></td>
</tr>
<tr>
<td>1993 National Mineral Policy revised: non-fuel and non-atomic minerals covered by the Act</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>2009 The New Law on Mineral and Coal Mining, (Law No.4/2009) passed into law with the President’s signature; the new law abolishes the contract system in favour of mining permit system and streamlines mining regulation in Indonesia</td>
</tr>
<tr>
<td>2003 Government Ordinance in Lieu of Law (Perpu) No. 1/2004 (The President signed the Perpu in 2004 to allow companies to resume their operations in protected forests)</td>
<td></td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>2003 Additional Profit Tax scrapped; double deduction of pre-production exploration costs was also allowed</td>
</tr>
<tr>
<td>2003 The budget contained a number of measures to stimulate mining investment</td>
<td></td>
</tr>
<tr>
<td>2000 The government injected US$10 million into the industry in the Mining Sector Institutional Strengthening Project; the project has yielded new geo-scientific data about some of PNG’s most promising regions and the bureaucracy was made more effective</td>
<td></td>
</tr>
<tr>
<td>The Philippines</td>
<td>2007 Executive Order 636 transferred the PMDC from the authority of the DENR to the Office of the President</td>
</tr>
<tr>
<td>1999 DENR attempted to minimise the ability of local governments to withhold consent for mining projects by issuing an administrative order stating that only 2 of the 3 local governments need to give their consent to the project</td>
<td></td>
</tr>
<tr>
<td>1995 Mining Act, 1995 (Republic Act 7942) (The Mining Act allowed for FTAAs and MPSAs)</td>
<td></td>
</tr>
</tbody>
</table>
Yet, despite favourable regulatory reforms the region has struggled to attract the desired levels of foreign mining investment. For example, between 2004 and 2007, the Philippines attracted $US1.4 billion in mining investment, falling short of the $US2.4 billion target (Vivoda, 2008). In 2008, the Philippine government also incurred a shortfall, generating only $630 million in investments, lower than its $800 million target. It is doubtful that the country will reach its $10-billion mining investment target for 2011. In 2009, Indonesia attracted less than US$1 billion in mining investment, falling considerably short of the US$2.15 billion target. In India, there is only a small presence of foreign mining firms and the country is therefore unlikely to reach the US$22.37 billion investment target for 2007-2009. We argue, however, that new and improved regulation does not automatically attract more foreign investment. In fact, despite more favourable regulation across the region, the poor performance of the governance structures and non-performing regulatory regimes in the mining sector is behind the high level of regulatory risk for foreign investors, and as a result, behind low levels of foreign investment. Regulatory risk at industry level can be defined as risk arising from the quality of regulatory rules governing a particular industry, and from their application and enforcement (Moran, 1999). While the quality of the rules has been improved in recent years, it is clear that in order to reduce regulatory risk and increase capital inflows into the sector, the performance (application and enforcement of regulatory rules) of regulatory regimes governing foreign mining investment must be improved.

Suxun and Chenjunnan, 2008; India – Jhingran, 1997; Singh and Kalirajan, 2003; Sames, 2006). The existing literature also fails to establish a sophisticated framework for comparative analysis and evaluation of the performance of regulatory regimes governing foreign mining investment in the Asia-Pacific region. We build on previous work in order to develop a framework which allows for comparative analysis of the sector and enables us to test the performance of mining regulatory regimes. This framework is based on the findings of an empirical study of the regulatory regimes governing the mining sector in the Asia-Pacific region and is, to our knowledge, the most comprehensive study of the sector undertaken to date. The value of this study is that it provides investors with a clearer picture of the various regimes governing mining, add to our understanding of a vital sector to regional economic development, and provide governments with a means to assess the performance of their regulatory regimes, relative to their regional neighbours. The paper is organised as follows. In Section 2, we survey extant literature on regulatory regimes in order to identify previous attempts at, and major features for, evaluating the performance of regulatory regimes governing foreign investment in the mining sector. In Section 3 we describe our ‘regulatory regime assessment instrument’, the theoretical framework which we employ in Section 4 to critically and comparatively analyse the performance of regulatory regimes that govern foreign mining investment in the Asia-Pacific region.

What distinguishes this framework from previous attempts at evaluating the performance of regulatory regimes in mining is both the size of the data set and its comprehensive and sector specific nature. The ‘regulatory regime assessment instrument’ covers all aspects of the policy making process, including the implementation of regulations. It is impossible in a paper to draw out the findings based on the total data set. Consequently, in this paper we limit ourselves to nine quality and performance indicators. These include, but are not limited to,
regulatory overlap, potential for capture by sectional interests, and levels of transparency and accountability. Each of these indicators is explained in more detail below. The findings of our study provide the first region-wide comprehensive assessment of the performance of regulatory regimes governing mining investment. Finally, in Section 5, we outline major policy recommendations. These may assist the ability of regional policymakers to evaluate and improve regulatory practice and increase future mining investment.

2. REGULATORY REGIMES, GOVERNANCE INFRASTRUCTURE AND FOREIGN DIRECT INVESTMENT

There is no single definition of ‘regulation’. As Ramesh and Howlett (2006: 2) note, some definitions ‘tend to be quite restrictive in focus’. However, Baldwin et al (1998) describe three possible interpretations which, in our view, cover much of the definitional landscape. The first of these defines regulation as all mechanisms of social control used by governments to achieve particular outcomes. The second defines regulation as the attempts by governments to set economic policy and achieve certain economic outcomes. The final one, and the one employed in this paper, is regulation as a form or mode of governance. Here we are referring to those mandated rules that govern activity in particular industry sectors or issue areas. While the type of regulation needed to govern the market is very different from that required in health or welfare, the need for coordinated action by governments requires a set of policies and the capacity to implement them. Regulation as a mode of governance is the ability of national governments to deliver goods and services, prevent market failure, and plan for the future.
In the context of attracting foreign direct investment (FDI), regulation has a dual function. First, it seeks to promote certain activities. This is often accomplished by offering investors a range of incentives or ‘sweeteners’. Examples include tax holidays, profit repatriation, 100% ownership of assets, and exemptions from land tax. These are *enabling* forms of regulation (Baldwin & Cave 1999: 2). They aim to provide an encouraging investment environment which foreign investors will find attractive and which will lead to improvements in the economic performance of the country. The second function of regulation is to prevent certain kinds of activities. Baldwin and Cave (1999: 2) refer to these as *restrictive* rules. These seek to curtail or manage certain kinds of behaviour. They set limits on what individuals and companies may do in the course of their business activities. Regulation to ensure that mining companies do not pollute the environment or to ensure that they return a share of the profits from a venture to local communities are two examples of these kinds of rules. *Enabling* and *restrictive* rules provide a set of guidelines which, in theory, enable companies to operate in the country in a way that satisfies their commercial ambitions, but also serves the government’s economic interests. Generally, a critical function of the regulatory regime is to put into practice the two policy trajectories (enabling and restrictive) and effectively balance the interests of key stakeholders, such as foreign investors, the government and the community (Dixit, et al., 2007: 102).

A well-performing regulatory regime is the main pillar of a favourable foreign investment regime in the mining industry. In a survey of 39 transnational mining companies conducted for the United Nations (Otto, 1992a; Otto, 1992b), a ranking was made of 60 investment criteria used by transnational mining companies when deciding where to invest. Of the top ranked 20 criteria, all but 10% were related in some way to government policies and regulatory systems. Consequently, the characteristics of regulatory regimes governing the
mining sector are of pivotal concern to companies investing in developing countries. Logically, regulatory environments exhibiting certain characteristics that reduce risks for foreign investors are more likely to attract foreign investment than those with characteristics that increase risks. The central questions then become: How do we assess the performance of the regime and what specific characteristics of a regime are likely to promote mining investment and which are likely to discourage it?

There has been little serious attempt to develop a systematic means of answering this question. Mining companies have had to rely on intelligence from political risk analysts. This intelligence is often provided on a country-to-country basis and so can be prohibitively expensive, especially for junior mining companies who are often undercapitalised. Moreover, where these political risk analysts rate particular risks, it is often difficult to discern the methodology behind the ratings. Two political risk analysts may rate the same risks differently. There is then a tendency towards subjectivity. Finally, without significant empirical research, such risk ratings tell us little about the overall characteristics of the regime.

Another course of action is to utilise the findings from the Fraser Institute’s annual surveys of preferred mining destinations. This survey asks mining company executives to rate their preferred mining destinations according to 18 criteria. These include, among other indicators, environmental concerns, regulatory uncertainty and mineral potential. There are three major strengths of this survey. First, it is comprehensive in that it compares all of the countries where mining companies operate. Second, the annual nature of the survey means that changes in the perceptions of the mining community can be tracked fairly well. Finally, the survey is cumulative, providing annual survey data for a number of years. However, the survey suffers
from two major deficiencies. First, it does not exclusively focus on the regulatory regime as the source of political risk, and second, the perception of a country’s attractiveness by mining companies may vary depending on how well individual operations are progressing at the time of the survey. Under these circumstances, it is difficult to correct for bias.

More sophisticated approaches to this problem employ a range of objective criteria to assess the performance of regulatory regime (Stern and Holder, 1999; Brown and De Paula, 2002; Gutiérrez, 2003; Cubbin and Stern, 2004; Kaufmann, et al., 2004; Kurtzman, et al., 2004; Jamison, et al., 2005; World Resources Institute, 2005). These approaches identify general ‘appraisal criteria’ which they use to assess the quality and performance of regulatory regimes governing the infrastructure sector in the Asia-Pacific. For example, Stern and Holder’s (1999) criteria are: (1) Clarity of Roles and Objectives; (2) Autonomy; (3) Participation; (4) Accountability; (5) Transparency; and (6) Predictability. The strength of the Stern and Holder approach is that their criteria have been empirically tested in a survey questionnaire. This gives them a degree of robustness. Second, their criteria have been developed specifically within the context of the Asia-Pacific region. While they are aimed at enhancing private investment in infrastructure, they are equally relevant to the mining sector; a sector which also has high sunk costs attached to its activities. As they conclude, ‘our assessment framework provides a useful basis for appraising and discussing the effectiveness of regulatory frameworks in supporting private investment in infrastructure industries. We have demonstrated its applicability for developing Asian economies and we look forward to seeing how it may be applied and developed in other contexts’ (1999: 49). Consequently, we take these criteria as the starting point in informing the development of an evaluative instrument tailored specifically to the mining sector. The methodology for this instrument is set out below.
3. METHODOLOGY: REGULATORY REGIME ASSESSMENT INSTRUMENT

This section sets up the regulatory regime assessment instrument, or the methodological framework central for assessing the performance of the regulatory regimes governing foreign mining investment in the Asia-Pacific region. The regulatory regime assessment instrument is an analytical tool based on 33 questions about nine key indicators of regulatory process in mining industries of five Asia-Pacific countries (China, India, Indonesia, PNG and the Philippines) and Western Australia (see Table 2). The preferred response for each question carries a value of 1 while the least preferred answer the value of 0. In addition to five Asian countries we decided to also focus on Western Australia (WA) as, unlike the Asian countries, the jurisdiction is regarded by the industry as one of the world’s premier mining investment destinations. Hence, we anticipate that the findings for WA will be considerably different than for the five Asian states.

<table>
<thead>
<tr>
<th>Key Indicator</th>
<th>Questions</th>
<th>Responses</th>
</tr>
</thead>
</table>
| 1. Regulatory Overlap | a. Is there regulatory overlap?  
                      | b. Is the role of the regulator contested? | Yes (0), No (1)  
                      |                                             | Yes (0), No (1) |
| 2. Effectiveness of Enforcement and Compliance Mechanisms | a. Are they used?  
                                                          | b. Are they effective?  
                                                          | c. Are there sufficient numbers of adequately trained compliance and enforcement officers available? | Yes (1), No (0)  
                                                          |                                             | Yes (1), No (0)  
                                                          |                                             | Yes (1), No (0) |
| 3. Impartiality in Decision Making | a. Is the regulator impartial in decision making? | Yes (1), No (0) |
| 4. Independence from Sectional Influence / Capture and Government | a. Are the regulators independent from government?  
                                                                   | b. Are the regulators independent from sectional influence?  
                                                                   | c. What is the level of influence from sectional interests?  
                                                                   | d. What is the level of corruption / bribe taking? | Yes (1), No (0)  
                                                                   |                                             | Yes (1), No (0)  
                                                                   |                                             | High (0), Low (1)  
                                                                   |                                             | High (0), Low (1) |
| 5. Investor Access to the Regulator | a. Does the regulator take submissions on behalf of the investors?  
                                                   | b. Does the regulator publish useful information for investors?  
                                                   | c. Does the regulator initiate discussion with the investors?  
                                                   | d. Does the regulator conduct industry road shows and conferences?  
                                                   | e. Are the presentations investor-friendly? | Yes (1), No (0)  
                                                   |                                             | Yes (1), No (0)  
                                                   |                                             | Yes (1), No (0)  
                                                   |                                             | Yes (1), No (0)  
                                                   |                                             | Yes (1), No (0) |
| 6. Other Stakeholders’ Access to the | a. Does the regulator take submissions on behalf of other stakeholders? | Yes (1), No (0) |
Unlike Stern and Holder’s (1999) six criteria, our instrument has nine key indicators (KIs). Some of the indicators overlap with Stern and Holder criteria. First, our ‘Regulatory Overlap’ (KI 1) largely overlaps with their ‘Clarity of Roles and Objectives’ and also covers ‘Predictability’. The division of authority between multiple, sometimes competing agencies, and differing objectives within different levels of government is of particular importance for foreign mining investors. If the regulatory process is not well defined or predictable, and if there is a high level of regulatory overlap and confusion, it is likely that regulatory risks for foreign investors will be high.

Second, our ‘Independence from Sectional Influence / Capture and Government’ (KI 4) is similar to their ‘Autonomy’; our ‘Investor Access to the Regulator’ (KI 5) and ‘Other Stakeholders’ Access to the Regulator’ (KI 6) largely overlap with their ‘Participation’, ‘Predictability’ and ‘Accountability’; and our ‘Public Access to Information’ (KI 7) and
‘Recruitment Independence and Transparency’ (KI 8) are similar to their ‘Transparency’. Including these criteria is important because the lack of transparency, accountability and/or formal stakeholder participation in regulatory processes add to regulatory risk for foreign investors. In their absence, the regulatory process becomes less predictable, and there is higher likelihood of regulatory capture by sectional interests.

However, although there is a degree of overlap between our instrument and Stern and Holder’s (1999) criteria for assessing performance of regulatory regimes there are also some important additions. We added ‘Effectiveness of Enforcement and Compliance Mechanisms’ (KI 2), ‘Impartiality in Decision Making’ (KI 3) and ‘Resources of the Regulator’ (KI 9) as we deem these criteria to be crucially important in the overall performance of a regulatory regime governing foreign mining investment. To illustrate, if regulators lack financial and/or human resources to effectively enforce compliance with rules and regulations, there is a higher chance of environmental accidents occurring as a result of mining operations. In turn, this increases uncertainty for local communities and risk for investors. Similarly, if regulators are not impartial in their decision making, and are, for example, biased in favour of mining investors, this is more than likely to cause grievances within the local community and become a significant source of risk for investors. Finally, if regulators lack resources to act according to formal rules and regulations and to implement policy, this is likely to further increase regulatory risk for foreign investors.

By this point it is clear that the regulatory process is where foreign investors are most involved, and where the actions of decision-makers impact most on their operations in a host country. Thus, it is undoubtedly the most important part of any host country’s policy process. However, before we turn to our findings, it is also important to acknowledge that ‘regulators
do not operate in vacuum’ (Jamison, et al., 2005: 37). They are influenced by a multitude of factors from outside the regulatory process. For instance, their effectiveness from the viewpoint of foreign investors can be strengthened or diminished by the host government’s policy objectives, the level of legal certainty, the clarity of rules and regulations governing their sector, or the level of decentralisation in the country. While these factors are not included as key indicators in our instrument, which focuses exclusively on the regulatory process, given their importance in influencing regulatory performance they inform our analysis in the following section.

4. ANALYSIS OF FINDINGS

In order to assess the performance of regulatory regimes governing foreign mining investment in the Asia-Pacific region, we established the Regulatory Performance Index (RPI), based on nine key indicators within which we ask 33 evaluative questions (see Table 2). The value of establishing a performance index is that it allows for comparative analysis of multiple jurisdictions across a number of key indicators. The answer for each question was derived from empirical research of publicly available materials, interviews with mining company executives, government employees and other stakeholders. The minimum or the least preferred value for each of the indicators is 0. The value rises to the maximum value of 1, or the most preferred value. A value closer to 0, indicates poor performance on a particular indicator, while a value closer to 1, indicates solid performance. The value for each indicator is calculated as an average of values for each question under that indicator and the value of RPI is calculated as an average of values for each key indicator. The RPI in the 0.00-0.33 range is classified as low; in the 0.34-0.66 range as medium; and in the 0.67-1.00 as high. The values for each indicator and RPI for six jurisdictions are listed in Table 3.
The findings show considerable variance in the performance of regulatory regimes governing foreign mining investment across six jurisdictions in the Asia-Pacific region. As predicted, WA has the best performing regulatory regime, with a high RPI. China and India have a medium RPI, while Indonesia, PNG and the Philippines have a low RPI, characterised by relatively poor performance of their respective regulatory regimes. The remainder of this section analyses the findings and explores the cross-country similarities and differences. The focus of the remainder of this section is on low performing indicators (RPI < 0.33) of respective regulatory regimes. In Section 5 we utilise the findings, and focus particularly on high performing indicators (RPI > 0.67) as the basis for improving regulatory performance throughout the region.

A common feature across the Asia-Pacific region is that there is significant regulatory overlap between various bodies that have jurisdiction over operations of foreign mining companies. Hence, the entire region scores poorly on this indicator (see Table 3). There are two types of regulatory overlap: among various levels of government (i.e. central and provincial) and among various agencies at the same level of government. The problem is

<table>
<thead>
<tr>
<th>Key Indicator (KI)</th>
<th>China</th>
<th>India</th>
<th>Indonesia</th>
<th>PNG</th>
<th>Philippines</th>
<th>WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regulatory Overlap</td>
<td>0.13</td>
<td>0.13</td>
<td>0.13</td>
<td>0.25</td>
<td>0.13</td>
<td>0.38</td>
</tr>
<tr>
<td>2. Effectiveness of Enforcement and Compliance Mechanisms</td>
<td>0.17</td>
<td>0.33</td>
<td>0.33</td>
<td>0.08</td>
<td>0.17</td>
<td>0.58</td>
</tr>
<tr>
<td>3. Impartiality in Decision Making</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>1.00</td>
</tr>
<tr>
<td>4. Independence from Sectional Influence / Capture and Government</td>
<td>0.13</td>
<td>0.13</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>5. Investor Access to the Regulator</td>
<td>0.50</td>
<td>0.75</td>
<td>0.40</td>
<td>0.70</td>
<td>0.65</td>
<td>0.95</td>
</tr>
<tr>
<td>6. Other Stakeholders’ Access to the Regulator</td>
<td>0.46</td>
<td>0.79</td>
<td>0.17</td>
<td>0.79</td>
<td>0.50</td>
<td>0.92</td>
</tr>
<tr>
<td>7. Public Access to Information</td>
<td>0.80</td>
<td>0.75</td>
<td>0.25</td>
<td>0.25</td>
<td>0.45</td>
<td>0.90</td>
</tr>
<tr>
<td>8. Recruitment Independence and Transparency</td>
<td>0.63</td>
<td>0.13</td>
<td>0.00</td>
<td>0.00</td>
<td>0.13</td>
<td>0.94</td>
</tr>
<tr>
<td>9. Resources of the Regulator</td>
<td>0.50</td>
<td>0.42</td>
<td>0.25</td>
<td>0.25</td>
<td>0.33</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>Regulatory Performance Index (RPI)</strong></td>
<td><strong>0.39</strong> (medium)</td>
<td><strong>0.41</strong> (medium)</td>
<td><strong>0.20</strong> (low)</td>
<td><strong>0.29</strong> (low)</td>
<td><strong>0.29</strong> (low)</td>
<td><strong>0.77</strong> (high)</td>
</tr>
</tbody>
</table>
particularly pronounced in China, India, Indonesia and the Philippines, where the decentralisation process has diluted central government authority and empowered the local level government units. As part of the process the provincial/state government agencies have been endowed with a high degree of decision-making power and, at times when they have conflicting policies or objectives with the central government, they have not been shy to exercise that power. Generally, in these four countries, lower government units have substantial power over decisions regarding mining investment in their jurisdictions. The reluctance of certain local governments to consent to mining projects is evidence that some local government units have come into conflict with the mining-based development paradigm pursued by their respective national governments.

To illustrate, in the Philippines numerous provinces, including Capiz, Aurora, Mindoro Oriental and Eastern Samar, have passed moratoriums on mining, ignoring the pro-mining policy of central government (Vivoda, 2008). In India, where state governments are empowered to design and regulate their own FDI policies, the division of mining project approval mechanisms between the central and state governments often undermines FDI promotion efforts by the central government (Singh and Kalirajan, 2003; Bloodgood, 2007). State governments are empowered to design and regulate their own FDI policies. The regulatory burden on foreign investors tends to be higher at the state level where application and approval procedures can vary widely across states. FDI projects already approved at the central government level tend to bottleneck as they proceed, since nearly 70% of the approvals and applications needed for FDI project implementation are obtained from state governments. State-level impediments to FDI can be severe, to the point that companies have been known to abandon FDI projects mid-way through implementation due to issues such as onerous zoning, land-use, and environmental regulations (Planning Commission, 2006).
In Indonesia, as new rule-making powers have been ceded to provincial and local governments, regulatory contradictions have emerged which have had a negative affect on mining investors. For example, new taxes have been implemented which conflict with the terms of a number of Contracts of Work, the main mining licensing agreements (O’Callaghan, 2010). The Indonesian Regional Autonomy Watch claimed that more than 30% of 693 regional regulations showed ‘lack of sensitivity with respect to the creation of a conducive business atmosphere’ (Rabasa and Chalk, 2001). In China, local levels of government have also been given greater autonomy in terms of mining project approvals, and the investors are required to obtain approvals from four tiers of government. The issue is that there is a high degree of duplicity and complexity in the approval process. For example, two levels of government can issue exploration licences and four levels of government can issue mining licences (Ward, Izzard and Cornelius, 2003).

The regional situation is not much different with regards to the issue of regulatory overlap and confusion among various agencies at the same level of government. The degree of regulatory confusion and overlap in the governance of the mining sector is a critical issue for the Indonesian government. In particular, given that there is the lack of fit between the 2009 Mining Law and the 1999 Forestry Law, as a result, there is significant regulatory overlap between The Ministry of Energy and Mineral Resources (MEMR) and The Ministry of Forestry (O’Callaghan, 2010). In China, there is significant regulatory confusion and overlap between various departments, including The Ministry of Land and Resources (MOLAR), the Ministry of Commerce, the State Environmental Protection Administration (SEPA) and the State Development and Reform Commission (SDRC) with regards to the mining licence approval process (Ward, Izzard and Cornelius, 2003). In India, there is regulatory confusion
as a result of jurisdictional overlap between the Ministry of Environment & Forests (MoEF) and the Indian Bureau of Mines (IBM) regarding the approval of environmental permits for mining operations (National Mineral Policy, 2006). In fact, a long-standing discord between conservation of forest resources and exploitation of mineral resources seems to be a formidable obstacle to speedy development of the mineral resources (Chatterjee, 2002). In PNG, the lines of responsibility between the regulatory agencies are not well defined or coordinated. For example, there is no clarity about the respective roles of the Department of Mining and the Department of Planning and Rural Development in the management of mineral wealth within a Sustainability Planning Framework for the mining sector (Simpson, 2002; Department of Mining, 2003).

Regulators and the judiciary across the region lack impartiality in decision making. Despite liberalisation of India’s investment restrictions, the Indian government continues to have a strong preference for domestic natural resources companies over their Western counterparts (Bailey, 2007). Similarly, in China and Indonesia, regulators and the judiciary favour domestic over foreign interests. Conversely, cases in the Philippines are repeatedly decided in favour of the mining companies, often to the detriment of those communities whose consent is legally required (Christian Aid, 2004; Vivoda, 2008).

A related issue is that across the region, with the exception of WA, regulating agencies lack independence from sectional influence and capture. In India’s mineral industry, the payment of bribes by mining companies to avoid bureaucratic red tape is commonplace (National Mineral Policy, 2006). The Philippine Center for Investigative Journalism has reported the lobbying of corrupt officials within the Department of Environment and Natural Resources (DENR) (Balgos, 2001). In fact, the DENR has been described as one of the most graft-
ridden and corrupt agencies in the Philippines. A 2005 European Commission report stated that the DENR, which has traditionally been notorious with respect to mining concessions, had ‘shied away’ from introducing internal controls to curb corruption (European Commission, 2005). The regulating agencies across the region are also not independent from government. In India, the government is the ‘development or project implementation agency’ as well as the ‘regulatory authority’ in the same sphere (Subramaniam and Ashwin, 2006). Similarly, in PNG, the government participates in the development of mineral resources as a joint venture partner (Department of Mining, 2003), and in Indonesia, the government can engage in business deals and sign contracts with third parties.

The overall picture across the region is much more positive regarding investor and other stakeholders’ access to the regulator and public access to information. However, although the overall picture is more positive compared to other issues, some problems are pertinent. In the Philippines, access to adequate mining information is very difficult. For example, it is extremely difficult for indigenous communities affected by proposed mining operations to access relevant information prior to project approval (Christian Aid, 2004). Moreover, in a recent study, the DENR, and the Mines and Geosciences Bureau (MGB) and the Environmental Management Bureau (EMB) in particular, have been found to be ‘averse to disclosing information to the public’, and it was argued that looking for mining-related data issued to mining companies is ‘as difficult as digging up the precious metals themselves’ (Aguilar, 2008). In PNG, there are low levels of regulatory transparency. The PNG government’s ability to disseminate detailed information about the costs, impacts and benefits of individual mining projects is problematic. Government agencies are often reluctant to share information with each other, let alone with stakeholders outside the public sector (Filer, 2002). In Indonesia, one of the main reasons that many mining companies elect not to invest
in the country is that they do not understand the revenue system. Since important information on the revenues paid by mining companies to government is publicly unavailable finding this information adds cost and uncertainty for potential new investors (Bhasin and Venkataramany, 2007; Laodengkowe, 2008).

Issues associated with independence of, and transparency in, the regulatory recruitment process are most pronounced in India, Indonesia, PNG and the Philippines. In all of these countries positions in regulatory agencies are often bought or secured via family and/or clan networks, and there is no comprehensive evidence of promotion or recruitment through a meritocratic and open selection process. China is a good example of transparent and relatively meritocratic recruitment process. Inadequate financial and human resources are also an endemic problem throughout the region. Most regulating agencies do not have the adequate administrative machinery to deal with their responsibilities. The problem has been exacerbated at the provincial/state level following decentralisation efforts which have transferred more powers to lower level governments without simultaneously providing them with additional human and/or financial resources.

In the Philippines, the MGB and the National Commission on Indigenous Peoples (NCIP) have failed to effectively apply the Indigenous Peoples Rights Act as they have severely limited resources to enforce the legal provisions, both in terms of budget and the expertise required to deal with complex matters of consent in indigenous communities. The large number of applications from mining companies makes their task particularly difficult. The NCIP officials report that they have no budget to inform communities properly of proposed corporate plans and no capacity to independently monitor the consultation processes (Christian Aid, 2004).
In Indonesia, officials have inadequate capacity to implement regulations. This is particularly the case with local level governments units which generally lack financial and human resources to provide public services to mining companies and other stakeholders (Resosudarmo, et al., 2009). In China, when the government promoted the National Environmental Protection Administration (NEPA) to the ministry level, and renamed State Environmental Protection Administration (SEPA), it cut its staff in half, from 600 to a mere 300. For a country with the size and complexity of China even 600 staff seems far too few to ensure environmental compliance compared with the 6,000 in the US Environmental Protection Agency.

In PNG, there are limits on the capacity of relevant government agencies to collect and store relevant information in a user friendly form due to a lack of computer hardware, computer software, or technical skill. Some government departments or officials do not even have access to the internet. They cannot access much of the information which mining companies, non-governmental organisations (NGOs) or other stakeholders are distributing through their various websites, let alone construct and maintain a website of their own (Filer, 2002). In addition, prior to the establishment of Mineral Resources Authority (MRA), The Department of Mining (DoM) was experiencing critical shortage of qualified staff, and was reliant on costly consultants to complete basic assessments. In years prior to reorganisation, the technical and coordination staff involved in managing the mining industry in the Department has sunk to one third of its designed strength with only 6 out of a staff ceiling of 45 on strength. By 2007, the budget available to the Department to manage the industry was less than one quarter of what it was in 1995. This is despite the fact that there were more mines in operation in 2007 than in 1995 (Mineral Resources Authority, 2008).
As a result of the lack of resources and regulatory overlap, discussed above, regulators and other government agencies across the region are inefficient and slow in approving mining project applications. In fact, since application process may require up to 100 different approvals from different agencies at various levels of government, the process from the initial application to the actual commencement of mining operations may take anywhere between two and three years (as in India and Indonesia). However, not only is the lack of human and financial resources the cause of delays in mining approvals, it is also behind the problem of ineffectiveness of enforcement and compliance mechanisms during mining operations. This is unsurprising given the chronic shortage, across the region, of adequately trained compliance and enforcement officers many of whom find employment in the private industry far more rewarding. Attracting and retaining skilled and professional staff is a problem not limited to Asia but interestingly is also endemic in WA as salaries in the private sector tend to be much higher than in the public sector (Government of Western Australia, 2009).

Even if mechanisms to ensure mining operation compliance are used, they are often ineffective. In China, SEPA often send their compliance officers to the mines and regularly issues them with fines for non-compliance. However, the fines are small and/or not enforced and the violators often get a ‘get-out-of-jail-free’ card simply because the government prioritises development over environmental issues (Economy, 2007). In Indonesia and the Philippines, where companies are required to undertake an environmental impact assessment (EIA) prior to the establishment of their operations, EIAs are frequently only an on-paper exercise and even appropriate EIAs do not necessarily lead to effective enforcement (Tan, 1998; Resosudarmo, et al., 2009).
Regulatory regimes form and develop within unique social and political contexts. They are influenced by such factors as language and culture, history, norms, taboos, conventions, forms of government, and institutional structures. North (1990: 36-53) highlights this in his distinction between informal and formal constraints on rule-making institutions. This is sometimes referred to as a country’s “institutional endowment” (Levy & Spiller 1994: 205). The key point is that institutions and regulatory frameworks evolve according to the particular ‘institutional endowment’ of a country and this ultimately determines the efficiency of its regulatory regime, its capacity for reform, and its ability to attract foreign investment. Levy and Spiller (1994: 202) note that ‘the credibility and effectiveness of a regulatory framework - and hence its ability to facilitate private investment - varies with a country’s political and social institutions’. A good example of this is the clan-based nature of politics in the Philippines, where large family conglomerates dominate the economy (Milo, 2007). There are an estimated 250 political families nationwide with at least one in every province occupying positions in all levels of bureaucracy. In addition, of the 265 members of Congress, 160 belong to clans (Conde, 2007). This often leads to regulatory problems as private interests taking precedence over the national interest. The important point here is that the capacity to improve regulatory regimes through policy reform can only be successful when provincial and national governments acknowledge the damaging effect that their particular ‘institutional endowment’ has on levels of foreign investment and work to transcend or limit its affect on the regulatory regime.

5. POLICY RECOMMENDATIONS

The Regulatory Performance Index (RPI) indicates that there are six key problem areas which plague governance of the mining sector in the Asia-Pacific region. These are regulatory
overlap, regulatory capture and a lack of independence from government, a lack of impartiality in decision-making, a lack of transparency in decision-making, inadequate stakeholder engagement and access to regulator, and a lack of institutional capacity (resources of the regulator and effectiveness of enforcement and compliance mechanisms). These issues are more pronounced in some jurisdictions than in others. Positive examples include China and India with regards to public access to information, China’s recruitment independence and transparency, India’s and PNG’s investor and stakeholder access to the regulator, and investor access to the regulator in the Philippines (Table 3).

Despite not performing well in three areas – regulatory overlap, effectiveness of compliance and enforcement mechanisms and regulatory capture – WA’s regulatory environment outperforms the other mining regimes in the region. This is not surprising. The contribution of mining royalties and taxes to that state (25% of gross state product in 2008-09; Government of Western Australia, 2010) is so significant that a poor regulatory environment would threaten the state’s economy. Moreover, the state has been developing its mining legislation since the 1970s (Government of Western Australia, 2009), much longer than the five countries surveyed above. Consequently, Western Australia provides an interesting model for resource rich countries in the region to follow. Sustained examination by relevant regulatory authorities would be a useful way to establish best practice. It is important to recognise, however, that there are examples in China, India and Indonesia where local governments have been working hard to improve the regulatory environment for foreign investors. In the Indonesian province of Riau, the government is actively promoting itself to investors. A few other regions, such as Balikpapan in East Kalimantan, have pledged to guarantee the security of both domestic and foreign investors. Others, such as Jogjakarta, have promised to cut red tape (Brodjonegoro, 2004; Fox, et al., 2005). The local government
of Rajasthan (India) has developed and implemented regulations that are attractive to foreign mining investors and these have had a positive effect on investment levels (Singh and Kalirajan, 2003). These positive examples provide central and lower level governments with a source of inspiration for improving their mining regulation.

There is a high degree of overlap in the regulatory regimes governing mining investment across the Asia-Pacific region. Given the significance of this problem it may be necessary for governments to review the regulatory architecture in order clearly delineate jurisdictions between regulating agencies and ministries. One of the areas of most difficulty for mining investors is navigating both mining and forestry regulatory requirements in order to complete the necessary approvals. Often mining companies receive conflicting messages from various regulating agencies which slows down the process unnecessarily. One possible solution to this problem is the creation of an inter-departmental coordinating agency with the capacity to resolve jurisdictional issues and demarcate clear boundaries over respective areas of control. This would most likely result in the reduction of regulatory overlap and would reduce red tape during exploration and mining permit application process.

Most regulators across the region are not independent from government influence and/or capture from other stakeholders. As a result, the regulatory agencies and judiciary are biased in their decision-making. Regardless of whether the bias is in favour of foreign investors or local stakeholder interests, it is likely to exacerbate tensions between various stakeholders. The inevitable outcome of capture is that there are winners and losers. Of all the policy problems that plague developing countries, capture is potentially the most difficult to solve because interests are so entrenched. However, as a first step, the government should appoint an impartial and well-resourced body to police regulatory agencies. In addition, it is
absolutely crucial that regulatory decisions and the reasons for their decisions are made public and open to challenge by stakeholders. This would ensure a higher level of communication and transparency in the mining sector, and go some distance to prevent capture.

One of the emerging problems for foreign investors is difficulties with stakeholder engagement. There are two problems for foreign investors. The first is that the legislation seeking to protect the interests of local communities is often exceedingly complex and unhelpful to miners. Approvals take far too long and the process can often be biased against mining companies. In PNG, for example, dealing with landowners over land access has become a formidable process in all stages of resource development. In fact, it has become common practice that no project can be finalised without acknowledging and incorporating the interests of landowners and local communities in the project area. Finding a balance between resource development and landowner aspirations has made policymaking in the mining industry challenging and dynamic. Miners seeking to invest in the Philippines have experienced similar problems (Chase and Lugue, 2006). The second problem is the tactics of anti-mining activist groups. Many of these groups interfere in the legislative process and artificially fuel tensions between communities and mining companies. Newmont Mining employees were arrested by Indonesian police and were charged with damaging the environment. Anti-mining activists were behind the claims and the basis upon which the Indonesian police acted. However, upon examination the claims were found to be completely false and the local environment had sustained no damage as a consequence of Newmont’s activities (O’Callaghan, 2010).
In response to stakeholder engagement problems, all stakeholders, including governments, need to tackle the following issues. First, central governments must create consistent standards and regulations, and insist on consistent implementation and monitoring. Second, government and mining operators should be more transparent and accountable in providing all socioeconomic and environmental information about mining operations. Third, all stakeholders, particularly mining operators, should take shared responsibility for the socioeconomic and environmental repercussions of mining activities. Fourth, distribution of revenues from mining operations among various stakeholders should seriously take into account equity and justice considerations from the perspectives of these stakeholders. In a democracy, it is important that mining operators obtain a “social license” from the locals. Appropriate socio-cultural considerations have increasingly become central to successful mining operations in Asia. While this is not easy, government and the private sector should move forcefully in this direction. In sum, governments need to ensure that stakeholder engagement legislation is efficient, fair to all parties and, above all, immune to the tactics of anti-mining activists.

A lack of institutional capacity is a key challenge for regional governments. Regulators suffer from a lack of human and financial resources, and as a result, undermine the effectiveness of compliance and enforcement mechanisms. This is especially a problem at the lower levels of government. This is the catch-22 problem which governments face. Institutional capacity building requires high levels of expenditure for training and development. Mining revenues are a key source of funding in order to address this problem. However, the continued low levels of investment across the region mean that institutional capacity building will be difficult to achieve and the regulatory architecture will remain a work-in-progress. Consequently, governments across the region need to redouble their efforts to build
institutional capacity. There have been some attempts by regional multilateral organisations, such as the Asian Development Bank (ADB), to promote regulatory capacity building to overcome this problem. Governments should seek assistance from such regional and global bodies and make institutional capacity building a key priority area.

6. CONCLUSION

This paper has assessed the performance of regulatory regimes governing foreign mining investment in the Asia-Pacific region against the main criteria which determine the quality of a regulatory regime. The argument has been that the poor performance of the governance structures and non-performing regulatory regimes in the mining sector is behind the high level of risk for foreign mining investors, and consequently, the low levels of foreign investment in many of these countries. To demonstrate this we developed a theoretical framework to interrogate key performance criteria of regulatory regimes governing foreign mining investment in the Asia-Pacific region. We expanded on the methodology first developed by Stern and Holder (1999) and used this to critically analyse the mining regulatory regimes of China, India, Indonesia, Papua New Guinea, the Philippines and Western Australia. Our findings highlight a number of strengths and weaknesses in the various regimes and our policy recommendations give an indication where improvement is needed. These policy recommendations may assist regional jurisdictions to improve governance infrastructure in the mining sector. This paper is the first to subject six resource rich jurisdictions to a comparative regulatory analysis. If followed, it may assist these governments, and those of other countries in the region, to improve their governance infrastructure and lead to an increase in levels of foreign investment into the sector.
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