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# FROM OIL TO TIMBER: THE POLITICAL ECONOMY OF OFF- BUDGET DEVELOPMENT FINANCING IN INDONESIA

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## A. Introduction

The abuse of natural resources in Indonesia has generally been cast as a simple matter of power and patronage. My thesis is that these abuses reflect deeper and much more surprising circumstances. First, the motive is as much the desire to pursue particular development strategies as it is to maximize political power or wealth. Second, the abuse occurs because of *disunity* within the Indonesian government. Natural-resource manipulations have proven to be an easy way for the Presidency to prevent this disunity from imposing political costs on the state. President Suharto has cleverly managed to keep this disunity from erupting into open conflict by avoiding head-to-head confrontations with government agencies in charge of the central budgeting process, most notably the Finance Ministry and the planning agency BAPPENAS (Badan Perencanaan Pembangunan Nasional; National Development Planning Agency). He has done so by using natural-resource wealth for government spending outside the central budget. He has also directed the private expenditure of natural-resource wealth that, according to sound natural-resource management practices, should have gone to the central treasury. Whether or not the central budget authorities could have blocked the President's initiatives if he had challenged them directly, this strategy of off-budget financing saved the regime the considerable embarrassment that would have emerged if the confrontation had been acute. Natural resource wealth—largely oil and timber—has been very convenient for off-budget

maneuvers because it is easily diverted from central government coffers with minimal public visibility. Unfortunately, these maneuvers have come at enormous cost to the natural resource base: mismanagement in the oil sector practically bankrupted Indonesia in the mid-1970s, and unsound forestry policies have led to enormous losses to the economy and environmental degradation.

The power of this explanation is reinforced by its applicability to both the Indonesian oil sector in the 1960s and early 1970s and the forest sector beginning in the mid-1970s and persisting today. Oil rents that under normal fiscal regimes would have gone into the central treasury were diverted in the earlier period through the operations of the state oil company Pertamina, which served as the President's off-budget "development agency" for a host of projects that would not have been supported by key ministries such as the Finance Ministry or the national planning agency. The very price of gasoline, kerosene, and other oil products had been set artificially low to promote oil-dependent industries. During the mid-1970s through the 1990s, the diversion of forest rents was accomplished by undercharging the private loggers for the concessions and royalties, and those loggers in return have applied part of their profits to the development projects that the president has signaled as his priorities. Within the state, the Forestry Ministry also helped in diverting forest rents into financing the rapid and highly controversial development of Indonesia's Outer Islands. An even newer maneuver involves the Forestry Ministry's capture of the so-called "reforestation fee," which has been applied through interest-free loans to state enterprises. All of these mechanisms have allowed the presidency to evade accountability for pursuing development initiatives that are potentially embarrassing from a hard-nosed economic perspective.

How do these maneuvers detract from sustainable resource exploitation? First, by undercharging for concession privileges and royalties, these manipulations encourage over-exploitation—the obvious result of cheap access. This problem was severe for both the state oil company and the private loggers. Timber under-charging in the forestry case also led to reckless exploitation, the result of the exploiters' uncertainty that their privileges would be available indefinitely. Second, under-pricing of *outputs*, first oil products and later logs, triggered uneconomical domestic resource consumption. This culminates in inefficient and resource-vulnerable industries in petroleum processing and wood processing. Third, the extraction of rents for special funds, such as the reforestation fund, have entailed quasi-taxation that has encouraged inappropriate resource exploitation.

## B. The Oil Sector

Indonesia's state oil company Pertamina emerged in 1968 in the same fashion as many other state oil companies: through the amalgamation of small preexisting state oil enterprises (in the Indonesian case, several) and larger operations taken over from international oil companies. In Pertamina's case, the holdings of small state producing companies were greatly expanded by a 1963 agreement by subsidiaries of Shell, Standard Oil of California, Texaco, Standard Oil of New Jersey and Mobil to relinquish their holdings to the government in exchange for long-term contractor arrangements. Some preexisting state operations had been in the downstream activities of oil transport and gas stations. Pertamina became a vertically integrated company with

exclusive control from exploration to domestic marketing. However, the new Pertamina was short on expertise in virtually all aspects of the oil business.<sup>1</sup> Pertamina continued to rely on international oil companies for many services. Pertamina's own exploration and production operations (i.e., apart from international contractors) produced only 10 percent of Indonesia's oil output in the 1970s and 1980s, and only 5 percent in the first half of the 1990s.

One novel aspect of the pre-1968 arrangement was that several small state operations were directly and formally controlled by the armed forces. Permina and Nglobo Oil Mining (later called Permigan) were established in the 1950s under military control when the army began the post-WWII, post-independence reconstruction of the devastated oil fields. It was widely understood and accepted that oil exploitation by these parastatals was a source of revenues for the armed forces.

Moreover, the charismatic head of Permina, General Ibnu Sutowo, became the head of the new Pertamina. Thus the heritage of Pertamina was a set of practices pursued by predecessors dedicated to augmenting the revenues of the armed forces, and directed by an instinct to keep the operations and financing secretive. This was a moderate problem when military-controlled oil operations were of modest dimensions. Yet by 1974, Pertamina's revenues, in the wake of the OPEC price increase, were US\$4.2 billion—one-sixth of Indonesia's gross domestic product.<sup>2</sup> Pertamina's international debt exceeded that of the Indonesian government's.

As a wholly government-owned enterprise with enormous revenues and expenses both domestically and internationally, Pertamina posed an overwhelming temptation for political leaders who wished to direct its revenues and forces toward political, distributional, and developmental objectives beyond its mandate as an oil company. The key political challenges for the government of President Suharto were to maintain the unity, strength and support of the Indonesian military; keep riot-prone populations and business groups content with a growing economy; and counter the forces of separatism and Communist insurgency. All the while, the Indonesian government was trying to cultivate sources of foreign assistance, including the United States and other OECD countries, as well as the multilateral agencies such as the International Monetary Fund. An openly defense-heavy national budget would have looked very bad; international borrowing beyond agreed limits would have looked even worse.

The centrifugal forces of the culturally and ethnically fragmented country were held in check by the might of the armed forces, but these same armed forces had toppled General Sukarno and were also struggling to contain a Communist opposition, several separatist movements, bloody inter-ethnic conflicts, periodic food riots, and other challenges to order and security. Adding to the potential for disintegration was the fact that regional commanders often had enough power to pose the threat of warlordism. The armed forces' demands for financial resources were enormous. As Hamish McDonald notes:

<sup>1</sup> In contrast to Venezuela's PDVSA (Petróleos de Venezuela, S. A; Venezuelan Petroleum Corporation), which retained a large cadre of expatriate managers and well-trained local managers.

<sup>2</sup> Adam Schwarz, *A Nation in Waiting: Indonesia in the 1990s* (St. Leonards: Allen & Unwin, 1994), p. 54.

The size of the military budget in particular had long been a delicate problem since it was proving less and less adequate to cover real needs. By the time Suharto took power it was an accepted fact that the armed forces had their own independent sources of funds. Suharto's need to unify the military vastly increased the demand. A basic strategy was to make soldiers rely as much as possible on Defence headquarters, rather than their regional commander, for their new uniforms, improved housing, pay and meal supplements. There were about half a million men in uniform to keep happy. Added to this were 1.7 million civilian employees (according to a special census taken in 1974 to see just how many were on the payroll, the first time a total had been determined), forming a comparatively small percentage of the population but in absolute numbers an enormous burden on Indonesia's revenue base.<sup>3</sup>

Thus, as a way of financing the armed forces without the visibility of central government spending, an undetermined, but certainly huge amount of Pertamina revenues went to the armed forces, even after the military-controlled oil companies were amalgamated under the single company structure.

More broadly, Pertamina was the public-works patronage agency and the few-questions-asked development agency when the Finance Ministry, the planning agency BAPPENAS, and the international lenders were insisting on austerity. Pertamina built hospitals, schools, and roads that served many people and purposes beyond the oil sector. In 1970 a presidential "Commission of Four" appointed to examine general charges of corruption in government criticized Pertamina for, among other things, "making unauthorized donations."<sup>4</sup>

The development strategy pursued directly through Pertamina operations was a remarkably broad industrialization and infrastructure expansion, unfettered by careful analysis of rates of return or significant government oversight.<sup>5</sup> Some of Pertamina's expansions were clearly connected to the oil business, although a state oil company could have easily forgone these investments: two US\$1 billion liquified natural gas facilities and a three-million-ton tanker fleet requiring a US\$3.3 billion investment. Some were down-stream petroleum-reliant industries, most prominently petrochemicals and fertilizer. However, other investments were at best only tenuously connected to the oil sector: a chain of hotels, rice estates, automobile distributorships, insurance, telecommunications, and the Pelita airline, which boasted the largest helicopter fleet in Southeast Asia. Pertamina even financed and operated a new industrial growth pole on Batam Island.<sup>6</sup>

One project in particular epitomized the "nationalists'" agenda: Krakatau Steel. This was a project to revitalize and expand the Soviet-built facility that went out of production in 1965, facing severe problems of old technology, lack of nearby ore and energy sources, and shortage of skilled manpower. None of the economic analyses indicated that the original project, or any modification of that sort at that site, were worth undertaking, but the steel industry was the quintessential emblem of

<sup>3</sup> Hamish McDonald, *Suharto's Indonesia* (Honolulu: University of Hawaii Press, 1981), p. 115.

<sup>4</sup> McDonald, *Suharto's Indonesia*, p. 124.

<sup>5</sup> John Bresnan, *Managing Indonesia: The Modern Political Economy* (New York: Columbia University Press, 1993), pp. 168-71, 182-3.

<sup>6</sup> McDonald, *Suharto's Indonesia*, p. 157.

modernization and industrial prestige. Sutowo quadrupled the targeted output of Krakatau and invested US\$2.5 billion for new construction, including a pipeline to bring natural gas from over 130 miles away.<sup>7</sup> These investments were made despite the absence of formal authorization by the government.

Pertamina was permitted to undertake these tasks not only because of General Sutowo's personal dynamism and his close relationship with President Suharto, but also because its access to investable capital was greater than any other institution short of the government treasury, and the latter was guarded by rather formidable "technocrats" who had the technical expertise and access to international fora to embarrass the President about these problematic development ventures if he were to try to pursue them through the conventional budget process. These technocrats were very influential even when Suharto wished to pursue development projects that ran counter to their vision of Indonesia's development. R. M. Auty notes:

The Indonesian civil service, which had been so faction-ridden as to be almost incapable of action under Sukarno, became more effective under Soeharto. Even though rent-seeking flourished and political fiefdoms persisted at local and national levels (in both the public and private sectors, notably in industry), a bureaucratic pluralism existed . . . Able technocrats retained sufficient independence from the military to prevent key development ministries (Finance, Mines and energy, Industry, and Public Works) from being wholly dominated by considerations of patronage. Although the balance of power shifted between two polarized technocratic factions, one comprising sectoral, statist nationalists and the other pragmatic, market-oriented technocrats . . . the latter faction was effectively used during the two oil booms to realign the economy periodically to real external constraints.<sup>8</sup>

Pertamina's access to capital obviously rested on oil revenues, but, like Mexico, the state oil company also had access to huge foreign loans that could be directed to spending targets chosen jointly by President Suharto and General Sutowo. The billions of dollars of loans to Pertamina were ostensibly for petroleum exploration, production, refining, and distribution, but both revenues and borrowed capital were also directed to other ends.

Pertamina's capacity to serve these functions clearly rested on the company's lack of transparency. The 1970 presidential Commission of Four complained about Pertamina's opaque accounting, lack of government oversight, and failure to relinquish funds ostensibly collected on behalf of the government.<sup>9</sup> It is significant that the reports of the Commission of Four were never officially released by the Indonesian government; public knowledge of the reports came only through leaks to the press.<sup>10</sup> Hamish McDonald put it bluntly:

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<sup>7</sup> Ibid.

<sup>8</sup> R.M. Auty, *Resource-Based Industrialization: Sowing the Oil in Eight Developing Countries* (Oxford: Clarendon Press, 1990), p. 116.

<sup>9</sup> McDonald, *Suharto's Indonesia*, pp. 124, 154.

<sup>10</sup> Ibid., p. 125.

Suharto needed Ibnu Sutowo to get things done . . . to provide funds for a threadbare army, to wean troops away from regional commanders, and to carry out essential political patronage. Ibnu Sutowo provided access to a vast, invisible system of taxation and expenditure that would be difficult to justify to the public if added to the official budget.<sup>11</sup>

McDonald's assessment makes it clear that Pertamina's capacity to operate without transparency was to a large degree dependent on the support of the President. Pertamina's clashes with government agencies over the control of oil revenues were highlighted by the controversy over the type of relationship the company should maintain with international oil companies. In 1966, General Sutowo, as both head of Pertamina's predecessor Permina and the government's Director General for Oil and Gas, signed production-sharing contracts over the objections of his formal superior, Minister of Mines Slamet Bratanata. In early 1967 Bratanata retaliated by offering leases that contradicted Sutowo's contracts, despite President Suharto's support for Sutowo. Suharto responded by removing Permina from the Ministry's control, and by October removed Bratanata from the cabinet. Similarly, in 1973 the attacks on Pertamina's international borrowing were fended off by President Suharto through his assertion that Sutowo had been entrusted to find his own financing.<sup>12</sup>

### The Fall of Pertamina

Pertamina's downfall came not from the questionable spending of its own revenues, but rather from its international borrowing. Like Mexico's PEMEX (Petrólcos Mexicanos; Mexican Petroleum Corporation), Pertamina was able to get international banks to grant it its own credit ceiling beyond that of the government. By 1975, Pertamina's foreign debt was US\$10.5 billion, compared to the government's foreign debt of US\$8 billion. Given the enormous range of Pertamina activities, it is clear that not all of this borrowed capital was going into the development of the oil sector. Pertamina was, in effect, borrowing on behalf of a broad range of programs and projects that President Suharto, if not the Indonesian Finance Ministry, was eager to fund off-budget. For its part, the Finance Ministry had to cope with the overall problem of declining hard-currency reserves.

In 1972 the Finance Ministry negotiated a stand-by agreement with the International Monetary Fund that put a ceiling on the government's *medium-term* (one-to fifteen-year) loans, backed up by a government decree requiring the Finance Ministry to approve all medium-term borrowings by state enterprises or government agencies. Pertamina was reprimanded for borrowing more than US\$350 in 1972 without permission, but government oversight was not appreciably improved.<sup>13</sup>

Apparently Pertamina desisted in this defiance of the medium-term borrowing limits enforced by the Finance Ministry. Yet by 1973, Pertamina found ways to borrow massively without violating the then-publicized prohibition on unauthorized medium-term borrowing. Taking advantage of the growing supply of short-term loans available

<sup>11</sup> Ibid., p. 151.

<sup>12</sup> Ibid., pp. 151-55.

<sup>13</sup> Ibid., pp. 154-155.

because of greater international liquidity, Pertamina increased its short-term exposure, while at the same time taking out long-term loans that also did not require Finance Ministry approval.

By 1975 Pertamina's debt included US\$1.5 billion in short-term loans that the company could not cover because the fall in world oil prices sharply reduced Pertamina's oil revenues. Pertamina's capital was tied up in long-term projects like Krakatau Steel and the natural gas projects. International banks, learning more of Pertamina's precarious position, took advantage of cross-default contract provisions that permitted them to call in more of their loans.

The Indonesian government was forced to take over Pertamina's debt obligations, cancel or postpone many Pertamina-controlled projects, and suffer from severely reduced international borrowing for the rest of the decade. This was not an isolated event of a parastatal bankruptcy; given the magnitude of Pertamina's total debt, the entire nation's creditworthiness was on the line, and the central bank had to renegotiate its own borrowings to secure the hard currency to meet Pertamina's repayment obligations.

Pertamina's total debt burden was reduced by selling tankers and canceling tanker leases; postponing the petrochemical and industrial complex on Batam Island; cutting back on Krakatau Steel to its original targeted output, now under the direction of a BAPPENAS official; and negotiating other sell-offs and cancellations that largely dismantled Pertamina as a multi-sectoral conglomerate. The government managed to obtain new medium-term financing to cover the short-term obligations, with the support of the US government and other industrial nations. Hamish McDonald reported that Indonesia's international borrowing up to 1980 was only half of what it would have been were it not for the Pertamina bankruptcy.<sup>14</sup>

### The Structural Changes of the Aftermath

By early 1976, Ibnu Sutowo was dismissed (though "with honor") and Pertamina was placed under the direction of the former Budget Director of the Finance Ministry, Major-General Piet Haryono. By 1976 the government instituted the following reforms:

- 1) Bank Indonesia (the central bank) assumed all Pertamina debts;
- 2) Bank Indonesia, acting on behalf of the Finance Ministry, had to negotiate and sign all Pertamina loans;
- 3) Bank Indonesia became the recipient of all Pertamina revenues, and supervised this special account;
- 4) Non-oil projects were either canceled or transferred to other government units, and the company was expressly forbidden to operate beyond the oil and gas sector<sup>15</sup>;

<sup>14</sup> Ibid., p. 164.

<sup>15</sup> Nevertheless, the boundaries of the "oil and gas sector" are fuzzy enough to have allowed Pertamina to keep its Pelita airlines and the petrochemical industry.

5) Bank Indonesia tightened up on its supervision of Pertamina financial records.<sup>16</sup>

In addition, international auditors (the firm of Arthur Young & Associates; later Price Waterhouse) were brought in to restructure Pertamina's books. Finally, and of much broader importance, all government agencies and state enterprises were required to submit their financial and investment plans to a tripartite committee of officials from Bank Indonesia, the Finance Ministry, and BAPPENAS. This committee had to pre-approve all loans for government agencies and parastatals.<sup>17</sup> In short, the victory of the central budgetary authorities (and, to a large degree, the so-called "technocrats") was complete—for the time being.

These reforms were capped by a modified oversight arrangement for Pertamina. The Board of Commissioners established in the wake of the 1970 Commission of Four critique was strengthened: the company was now to be governed by a Board of Commissioners chaired by the Minister of Mines, with the Finance Minister as Vice Chair. Other members were the Minister State Secretary, the State Secretary for Research and Technology, and the head of the planning agency BAPPENAS. Informally, the cabinet ministers of Mines, Finance, Communications, and Planning—all prominent "technocrats"—took control of straightening out the oil and gas sector.<sup>18</sup> Combined with greatly improved (but still not ideal) financial and operational transparency, this collective oversight dramatically reduced the capacity of any intra-governmental actor to use the company to circumvent the policy preferences and jurisdictional claims of other governmental actors. Whatever ulterior motives were to be pursued by Pertamina had to be thoroughly vetted and approved by this broad range of governmental units. Certainly the visibility of Pertamina operations through this oversight made all involved agencies aware of the company's operations. This structure brought the policymakers closer to consensus in how Pertamina's operations should be conducted and its revenues spent:

Pertamina is no longer the self-willed prestige state within a state that it once was . . . All major policy decisions on hydrocarbon investment, production and pricing appear to be taken by the government primarily in the form of the Minister of Mines and Energy and the country's president. However, the National Development Planning Agency (BAPPENAS) and key ministers such as the Coordinating Minister for Industry and Trade...play important roles in major policy decisions. The interlocking directorships and chairmen of the various bodies involved in energy matters should allow a reasonable consensus to be developed.<sup>19</sup>

This is not to say that Pertamina was tamed overnight. Pertamina's accounts remained inadequate, though significantly better than in the pre-1975 era. *The Economist* reported in mid-1981 that "[s]ince Pertamina crashed six years ago, the

<sup>16</sup> Albert Royaards and William Hui, "Indonesia Struggles to Recover from the Pertamina Affair," *Euromoney* (March 1977): 37-42, at p. 37.

<sup>17</sup> Royaards and Hui, "Indonesia Struggles," p. 42.

<sup>18</sup> Peter Rutledge, "Letter from Jakarta," *Business Week* (October 25, 1976): 26.

<sup>19</sup> Philip Barnes, *Indonesia: The Political Economy of Energy* (Oxford: Oxford University Press, 1995), p. 154.



accounting firm, Price Waterhouse, has been struggling to audit the company's books. Every year it has said it would have the books ready for public inspection, and every year it has had to postpone the unveiling."<sup>20</sup> Nonetheless, the periodic efforts to clean up the records and root out corruption have all made inroads, inasmuch as Pertamina was no longer able to dismiss these efforts as it was prior to 1975. Most importantly, Pertamina ceased to be the prime vehicle of off-budget wheeling and dealing. Philip Barnes, in an otherwise quite critical assessment of the Indonesian oil sector, summarizes the strides made in reforming Pertamina:

By 1979, much of the non-oil business had been dismantled and the company had largely, although not wholly, reverted to its statutory role as an oil and gas enterprise. Pertamina is still allowed to involve itself in some outside interests in support of its oil and gas business but such activities now seem to be kept within reasonable bounds. Oil and gas revenues are channeled to central government to finance development plans and there is a suitable level of auditing . . . <sup>21</sup>

However, in one area Pertamina remained outside of the grasp of those government officials who wished to wrest more of the oil rents from the enterprise. Pertamina remained, and indeed grew, as a patronage employer. The 1979-81 second oil boom prompted Pertamina to add employees despite the shedding of direct exploration responsibilities; by the mid-1980s, Pertamina had fifty-four thousand employees in addition to twenty-four thousand contractor employees in exploration and production.<sup>22</sup>

It is important to point out what Pertamina has done well. It has done a solid job in overseeing the rate and pricing of oil production destined for export. The continued reliance on international oil companies for exploration and production maintained a crucial role for market considerations in making decisions on exploration rates, production rates, sales volumes and export pricing, within the parameters permitted under OPEC. Compared to PEMEX and PDVSA, which are the major producers in Mexico and Venezuela respectively, Pertamina's functions with respect to "upstream" oil production have essentially been to negotiate contracts and collect royalties from the international companies. Insofar as Pertamina has been in a far weaker position post-1975 to capture these royalties, the company has performed this function well, through continual pressure on the companies to accept lower shares of the oil they produce.<sup>23</sup> With more than one hundred different companies and consortia bidding on Indonesian oil contracts, this approaches an auction mechanism and paces the rate of exploration according to the government's need for income and the company's perceptions of prospectivity and future world market prices. While some Indonesians have complained that the production-sharing contracts have been more generous than those of the Middle Eastern oil giants, this is a reflection of Indonesia's lower prospectivity and the more difficult production conditions in the forests and

<sup>20</sup> Anonymous, "Pertamina: The Profligates Return?" *The Economist* (June 20, 1981), p. 85.

<sup>21</sup> Barnes, *Indonesia: The Political Economy of Energy*, pp. 151-2.

<sup>22</sup> Auty, *Resource-Based Industrialization*, p. 145.

<sup>23</sup> The traditional fear of government of developing countries in dealing with international oil companies is that they will capture more of the resource rent than the government would if its own entities were exploiting the oil.

swamps of Kalimantan, Sumatra, Irian Jaya, and other field locations. Because international capital directed by the international oil companies was available for exploration and production only when market conditions were appropriate, Indonesia has avoided both the political pressures to squander resources on politically motivated exploration and production (as in Peru) and the consequences of state enterprise under-capitalization (as in Mexico and Venezuela).

However, one weakness in Pertamina's relations to the international oil company contractors has been the requirement that the contractors provide social and community services in the regions of oil exploitation. While this serves the political function of giving the appearance that the international companies have been squeezed to provide even more than their royalty payments, it places the responsibility for planning and undertaking community and social services (such as health clinics, town paving, and even entertainment) in the hands of international oil companies, who are in no better position to perform effectively and efficiently in these spheres as Pertamina oil geologists were to run hotels. In addition, the provision of these services in specific oil-producing areas often entails inequitable benefits compared to other areas.

In terms of the advisability and efficiency of *downstream* investments, Pertamina's performance also appears to be reasonable. Large-scale projects such as refineries and liquid gas facilities have typically been joint ventures, which subject the project to the rate-of-return scrutiny of an international, private-sector partner; or have required international borrowing, which subjects the project to the scrutiny and approval of the oversight ministries, the central bank (Bank Indonesia) and the planning agency. Some corrupt practices in local contracting have been reported, but the overall advisability of Pertamina downstream projects has been vastly improved over the days of Krakatau Steel.

### Domestic Pricing Problems

During the 1970s, the domestic prices of Indonesian petroleum products were heavily subsidized, leading to over-consumption, lost opportunities for oil export, and the development of industries vulnerable to future energy-price increases. For a country likely to be a net oil importer early in the twenty-first century, this last risk was much more serious than for countries like Venezuela and Mexico with much greater potential reserves. From 1975 to 1980, domestic consumption of primary petroleum products grew by an annual rate of over 9 percent, compared to a GDP growth rate of 7 percent. In 1980 the government set up the National Energy Coordinating Board with the principal objective of reducing domestic oil consumption.<sup>24</sup> In particular, the huge subsidies for kerosene, initially rationalized as support for low-income households to cover their energy needs, led to the inappropriate use of kerosene for transportation, heating, and other purposes outside of the household. As late as 1987, kerosene accounted for more than a quarter of Indonesia's domestic petroleum consumption, a figure far too high given Indonesia's

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<sup>24</sup> Barnes, *Indonesia*, p. 82.

biomass potential.<sup>25</sup> The subsidy also led to smuggling, as some individuals bought cheap kerosene in order to sell it abroad at a markup.

The policy of low domestic petroleum-product prices that prevailed in the 1970s was propelled as much by a cheap-energy industrialization strategy as it was to mollify a mobilized consumer population. The nationalists favored inexpensive energy for industry and transport, and the expansionary climate made it difficult for the government to insist on the discipline of keeping domestic prices in line with rising production costs. Yet the core of the strategy of oil-led industrialization was to maintain petroleum exports as the chief source of foreign exchange to finance domestic industrial and infrastructural growth.

Liberalization came once there was a strong demonstration of how onerous the costs of under-pricing were for this core strategy. The 1982 economic crunch that reduced Indonesia's GDP growth from nearly 8 percent to only 2 percent coincided with a 25 percent production decline of crude. Even though world oil prices remained nearly as high as in 1981, the decline in government revenues was so alarming that the technocrats were able to press for increased domestic petroleum product prices as the obvious measure to make more crude available for export. Higher prices would reduce the domestic demand for crude, leaving a larger portion of Pertamina's share of crude production for export. Barnes notes that "[d]iminished oil production reduced government revenues and strained the policy of using production-sharing crude for subsidized sales of petroleum products to the domestic market. As a result subsidies were cut in 1982-3 and domestic fuel prices increased by 60 to 75 percent."<sup>26</sup>

The liberalization also reflected changed views on the entitlement nature of energy. As long as Indonesian oil seemed limitless, cheap oil-based energy was widely regarded as a gift of God. The decline in oil production, as dependent as it was on complex factors such as the incentives for international companies to explore for new fields (which in turn is a function of world oil price expectations), was a very sobering reminder of the finite nature of the nation's oil reserves.

Then, too, the economic crisis put the technocrats into a stronger position to determine economic policy, and one of the technocrats' main preoccupations was the adequacy of central government revenues, which they controlled through the technocrat's dominance in the Finance Ministry and the planning agency BAPPENAS. However, there was a broadening consensus that energy prices ought to be liberalized. This reflected the fact that price subsidies were no longer serving the development objectives held dear by the nationalists, and of course remained anathema to the technocrats. It was then just a matter of finding the path of price increases that would keep public dissatisfaction within tolerable bounds. Price subsidies were no longer serving the development objectives of rapid industrialization because they were curtailing the oil-export basis of the industrialization strategy. In the 1990s, overall petroleum-product growth has been approximately 8 percent per year; not as low as the energy conservation planners would like, and not much lower than the rates of the 1970s, but, coming at a time of rapid economic growth (GDP growth of 7 to 8 percent) and expansion of the transportation fleet, such growth in petroleum consumption is

<sup>25</sup> Ibid., pp 87-90.

<sup>26</sup> Ibid., p. 23.

not a reckless outcome. Reductions in subsidies for kerosene reduced the growth in kerosene demand from 10 percent to 5 percent by the 1990s.<sup>27</sup>

### Insights into Root Problems

The 1975 bankruptcy, and the poor investments that it revealed, provide important insights into the relationship between fiscal arrangements and financial profligacy. One root of Pertamina's 1975 debacle, and indeed the undiscipline of Pertamina spending since its inception, was the sheer fact that the company so easily held onto the oil resource rent. Pertamina, like so many other state oil companies, paid royalties that were not based on the full oil rents that should be captured at the outset by the resource owner (i.e., the government rather than the state enterprise). This under-pricing was itself a policy failure that induced over-exploitation, but it had the additional perverse effects of leaving Pertamina with huge windfall profits when world oil prices were high. Even if Pertamina had not been guilty of failing to turn over all of the revenues owed to the treasury, as the Commission of Four alleged, it would still have had enormous surplus to allocate, especially in boom years like 1974.

Yet this under-pricing is particularly problematic when combined with minimal transparency and high willingness of top government officials to allow or even demand extra-sectoral investments by the state enterprise. From the outset, Pertamina was conceived as a *conglomerate* and rewarded for behaving as such. Barnes puts it well when he says that Pertamina "ran itself as a kind of national development corporation for Indonesia."<sup>28</sup> Pertamina's 1968 articles of incorporation, and the 1971 law specifying its monopoly over oil-related operations, did not limit Pertamina to the oil sector, and indeed the idea that Pertamina was a far-flung conglomerate akin to the multinational corporations was a source of pride for many Indonesians.

However, this conception of a rent-capturing state enterprise as a diversified conglomerate violated a basic principle of public finance that the *government's* resources ought to be allocated centrally to increase the likelihood that the most worthwhile projects and programs will be chosen across the entire economy. Pertamina publications in general stressed that all of its ventures have been chosen with the expectation of profitability, but the company has never been in the position to be able to judge whether its investment possibilities have been as great as other possibilities available to the government. Moreover, the technical capability of oil company executives to select and manage non-oil-related ventures was clearly problematic. Thus the reforms that Pertamina has undergone have increased its managerial efficiency as well as its investment efficiency, simply by reducing the scope of the company and thus confining it to the sector in which it has a fighting chance to operate with solid professional judgment.

### Forestry Policy

The forestry sector was largely untouched while Pertamina was the main agent of off-budget government spending. Dipterocarp forests blanketed Sumatra, East and

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<sup>27</sup> Ibid., p. 87.

<sup>28</sup> Ibid., p. 151. We shall see that in later years the Forestry Ministry played a comparable role.

West Kalimantan on Borneo, and Irian Jaya. Modest farming and plantations were emerging on Sumatra, and local peoples engaged in even more modest shifting cultivation on Kalimantan and Irian Jaya, yet forest clearing was essentially limited to the few logging concessions that the government began issuing in the late 1960s in the wake of the Foreign Investment Law of 1967 and the Domestic Investment Law of 1968. In 1970, the sixty-four concession areas covered less than eight million hectares, a tiny fraction of the vast expanse of these islands.

Yet in the 1970s and 1980s, the concession areas increased vastly in number and size. Legal and illegal logging exploded. Of course, not all deforestation was due to logging—slash-and-burn agriculture, as well as conversion of natural forest to plantations and to sedentary agriculture, were also important. Yet even the slash-and-burn agriculture could be partially traced to logging, as logging roads opened the path for slash-and-burn cultivators to move further into the interior.

The serious impacts of over-logging on the forests have been documented elsewhere.<sup>29</sup> Here it is necessary only to point out that beyond the impact on the forests and ecosystems, the forest-products industry, propped up by cheap but shrinking inputs, is both inefficient and vulnerable to supply shortages. The proceeds from forestry exploitation have been squandered in unwise investments both within and outside of the forestry and wood-products subsectors.

The government policies responsible for these problems are not hard to find: huge, unmonitored concessions; harvesting regulations that permit high-grading and high damage to non-harvested trees; inadequate royalties that also encourage high-grading; a reforestation fee-and-refund system that rarely provides refunds or stimulates reforestation; a ban on log exports that has shrunk the market for Indonesian timber, costing hundreds of millions of dollars in lost exports and exacerbating the inefficiency of wood-products industry; land classifications that contribute to poor land uses; and an ineffective plantation-subsidy program.<sup>30</sup>

<sup>29</sup> The World Bank, *Indonesia: Sustainable Development of Forests, Land, and Water* (Washington, DC: World Bank, 1990) estimated that Indonesia was losing forest at a rate of one million hectares annually as of 1988. Since the more accessible, higher-yielding areas are targeted for logging before the less accessible ones (such as the relatively low quality, inaccessible forests of Irian Jaya), the loss of 1 percent of the total forested area is of much greater economic significance for future supplies of timber than it might appear at first glance. There are estimates that all commercial timber will be gone within thirty years if present rates of exploitation continue. See Adam Schwarz, "A Saw Point for Ecology," *Far Eastern Economic Review*, April 19, 1990, p. 62. Some prized furniture woods, such as *ramin*, are already becoming scarce. Depletion of the Sumatran forests has resulted in the need to import logs from Kalimantan to supply the Sumatran mills; interviews with executives in the forest-products industry reveal that some supplies are faltering even in Kalimantan. Some government officials estimate that throughout the country, sawmills are operating at only an average of 40 percent capacity (although this is a reflection of poor siting of the mills and the growth of plywood manufacturing, as well as overall problems of supply). Non-governmental sources estimate commercial logging rates at around forty-four million cubic meters of wood annually. See WALHI [Wahana Lingkungan Hidup Indonesia; Indonesian Forum for the Environment], *Sustainability and Economic Rent in the Forestry Sector* (Jakarta: WALHI, 1991). This far exceeds the government's own calculation of the maximum sustainable yield of thirty-one million cubic meters. See FAO [Food and Agriculture Organization of the United Nations] and Directorate General of Forest Utilization, Ministry of Forestry, Government of Indonesia, *Situation and Outlook of the Forestry Sector in Indonesia* (Jakarta: Government of Indonesia, 1990).

<sup>30</sup> The particular policy failures were the following:

1) The formal harvesting system that prevails throughout most of Indonesia's non-plantation production forests (the so-called Indonesian Selective Logging and Regeneration System) leaves the harvester essentially free to remove the best trees, has not prevented relogging within five to ten years rather than the thirty-five years formally required by the policy, and encourages very high collateral logging damage that can affect nearly 40 percent of standing stock. See Malcolm Gillis, "Indonesia: Public Policies, Resource Management, and the Tropical Forest," in *Public Policies and the Misuse of Forest Resources*, ed. Robert Repetto; and Malcolm Gillis (Cambridge: Cambridge University Press, 1988), p. 100. For information on logging damage to standing stock, see World Bank, *Indonesia: Sustainable Development*, p. 10.

2) The practice of granting huge concessions (some over 1 million ha.) has made it impossible for the government and concessionaires to police the larger concessions, while the concessionaires have no responsibility to permit local people access to concession areas when active logging is not occurring. Malcolm Gillis points out that government regulation of a few huge concessions may or may not be more difficult than regulation of many smaller concessions; however, huge concessions are difficult for the concessionaires themselves to police in terms of invasion by shifting cultivators or poachers. He also points out that "restriction of concession size will discourage speculation in the form of 'stockpiling' of desirable tracts to keep them out of the hands of other firms." See Malcolm Gillis, "Forest Concession Management and Revenue Policies," in *Managing the World's Forests*, ed. Narendra Sharma (Dubuque, Iowa: Kendall/Hunt Publishing for the World Bank, 1992), p. 149. The concession policy also has vague renewal criteria that permit political considerations to enter and leave the concessionaires with little incentive to manage their concessions sustainably.

3) The royalty and taxation system, based largely on an *ad valorem* royalty, captures far too little of the natural resource rent (roughly 20 percent of *declared* rents) and also encourages high-grading, the practice of removing only the most valuable trees. It is a problematic practice because 1) greater areas suffer collateral damage to obtain the target volume of timber; 2) forest stands become degraded as the best specimens are removed. The low level of rent capture encourages over-harvesting, puts considerable resources in the hands of individuals and companies with no incentive to re-invest them in the Indonesian economy, and undermines the timber estate initiative.

4) The reforestation subsidy policy, financed by a large reforestation fee on the volume of timber removed, is ostensibly designed to encourage loggers to replant in order to receive refunds of their reforestation deposits, but the government has rarely provided the refunds for qualifying concessionaires. The fee is effectively a volume tax, nearly of the same magnitude as the normal *ad valorem* royalty. See Gillis, "Forest Concession Management," pp. 161-2. There it also induces high-grading, because the removal of more valuable trees does not incur a higher tax, thus effectively reducing the tax rate. The retention of the reforestation fees by the Forestry Department has provided it an enormous fund, equivalent to around US\$1 billion, with no external controls or monitoring on its disposition of the funds. As of mid-1992, private sources and interviews estimated the Forestry Ministry's deforestation fund at US\$800,000,000; some interviewees believed that it had exceeded US\$1 billion. There has been much speculation that the funds have been used for political purposes; it is no surprise that the monitoring of the fund has been inadequate.

5) The promotion of down-stream wood-products, including a ban on round-log and rattan export and substantial subsidies to the processors, has led to inefficient processing that is vulnerable both to international competition and to the reduction in inputs from domestic logging. See Kartawinata Kuswata, Soedarsono Riswan, and Andrew Vayda, "The Impact of Man on a Tropical Forest in Indonesia," *Ambio* 10,2-3 (1984): 115; and Gillis, "Indonesia: Public Policies," pp. 56-57. The export ban, enacted in 1980 with a five-year phase-in period, was an extension of the 1978 policy for promoting the domestic forest-products industry through higher export taxes on round logs than on sawn timber or plywood. In mid-1992 the outright ban was replaced by an export tax, not to increase log exports but simply to redirect the jurisdiction over the ban from the Ministry of Industry to the Finance Ministry. This is not a very significant change in terms of the possibility of exporting round logs, since the export tax is prohibitively high. Gillis estimates that in 1981 and 1982 alone, the Indonesian economy lost over US\$400,000,000 of forgone revenues, equivalent to 27 percent of the timber rent, largely because of inefficiencies of processing. See Gillis, "Indonesia: Public Policies," pp. 95-97. Bruce Fitzgerald found that four dollars in log exports were sacrificed for every dollar gained in plywood exports. See Bruce Fitzgerald, *An Analysis*

At first glance, it seems that the same basic pattern of cheap forest concessions and under-regulation existed to benefit the politically powerful during the entire period from the late 1960s to the present. This has prompted some observers (e.g., Robin Broad) to characterize the entire period as a uniform and static arrangement.<sup>31</sup> In fact, there have been critical changes over time that reveal important changes in the logic and political motives of these policies.

The groundwork for these policies was laid before timber rents became important. In the late 1960s the Suharto government appropriated 90 percent of all forest land, thereby centralizing government control over forest resources, negating traditional property rights. This set the scene for a massive forest concession system and eliminated obstacles for foreign firms to operate forest concessions.

Royalties and taxes on timber harvesting were kept low, amounting in total to only a quarter of the stumpage value during the 1967-75 period, declining to less than 10 percent by 1985-86.<sup>32</sup> Domestic and foreign timber companies responded enthusiastically; from 1967 to 1973, timber exports more than doubled every year. By 1973, Indonesia was the world's largest tropical timber exporter. Foreign investment in the forest sector boomed, with Japanese, Korean, Philippine, Malaysian, and US timber companies investing heavily in roads and equipment, although the demand for round log exports kept investment in local processing (e.g., sawmills) quite low. The

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*of Indonesian Trade Policies: Countertrade, Downstream Processing, Import Restrictions and the Deletion Program* (Washington, DC: World Bank CPD Discussion Paper 1986-22, July 1986). It was not until 1988 that the value of plywood exports exceeded the 1979 log export earnings of US\$2.1 billion. See Adam Schwarz, "Timber Troubles," *Far Eastern Economic Review*, April 6, 1989, pp. 86-88.

6) Inconsistencies in land classification have both detracted from optimal land use and weakened conservation regulations. Different agencies use different classifications, resulting in suboptimal land use and confusing information. The Forestry Ministry has clung to its jurisdiction over some land of relatively high agricultural potential and already deforested. The World Bank study estimates that 30 percent of Sumatra's land within forestry boundaries is unforested); other areas, classified as conversion forests though of poor soils, are barred to the Forestry Ministry because they are classified as conversion forests. See World Bank, *Indonesia: Sustainable Development*, p. 31.

7) The timber estate promotion policy, impelled by growing concern over supply shortages for the wood-products industry, has subsidized questionable plantations. The World Bank estimates the subsidy at US\$425 per hectare. See World Bank, *Indonesia: Sustainable Development*, p. 14. The money comes from the Forestry Ministry's reforestation fund, and the claimants are largely already-established, vertically integrated timber companies. The lack of subsidy beyond the third year encourages the planting of inexpensive species and minimal maintenance, leading to stands of little value at harvest time. Prohibitions against foreign ownership of concessions effectively deter the multinational companies with sufficient capital and technology for successful plantations. See Malcolm Gillis, "Multinational Enterprises and Environmental and Resource Management Issues in the Indonesian Tropical Forest Sector," in *Multinational Corporations, Environment, and the Third World: Business Matters*, ed. Charles Pearson (Durham: Duke University Press, 1987), p. 75. But the main problem is that low timber rent capture from concession areas makes the logging of natural forests more economically attractive than plantations to the forestry industry. There is an incentive to capture the benefits of the zero-interest loans by diverting the funds to other projects, and then walk away from the plantations because even successful production would be difficult to sell in light of the low price of logs from natural forests.

<sup>31</sup> Robin Broad, "The Political Economy of Natural Resources: Case Studies of the Indonesian and Philippine Forest Sectors," *The Journal of Developing Areas* 29 (April 1995): 317-340.

<sup>32</sup> These figures are from I. Ruzicka, "Rent Appropriation in Indonesian Logging: East Kalimantan 1972/3 - 1976/7," *Bulletin of Indonesian Economic Studies* (July, 1977): 45-74; World Bank, *Indonesia: Sustainable Development*; and Gillis, "Indonesia: Public Policies."

multinationals were making decent profits based on rather large investments, but the major *rent* beneficiaries were top military leaders granted concessions and the Indonesian Chinese loggers brought in to provide the expertise and operational capability in partnerships with these officers. As in Malaysian Sarawak,<sup>33</sup> the politically powerful rent recipients could largely sit back and have others exploit their forest concessions for a split of the proceeds. In Sarawak, this has been the powerful civilian *bumiputra* Sarawakians; in Indonesia it was the armed forces.

Yet, beginning in 1979, the government moved to tax and then ban all round-log exports by 1985.<sup>34</sup> This ban seems to fly in the face of political logic, inasmuch as it dealt a blow to the economic fortunes of the presumably politically powerful military concessionaires. This policy also destroyed millions of dollars of timber value by forcing Indonesian timber into highly inefficient, value-reducing domestic production. The forestry sector as a whole suffered, as would be expected of any constraint imposed on the predominant activity—in this case raw log export—chosen by the concessionaires to maximize their returns. In 1980 the Indonesian government also began the exclusion of foreign firms as concessionaires, expanded to a full ban by 1984. Some joint ventures with Indonesian firms remained viable, but clearly the multinational companies, formerly encouraged, were largely removed from logging. This made it much more difficult for the forestry sector to take advantage of multinationals' technological and potential environmental expertise. Theories of the insidious power of the multinational corporation certainly fall flat in accounting for this turn-about.

Also in 1980 the government established a reforestation fund under the control of the Forestry Ministry. Initially represented as an environmental measure, this fund collected a fee on the volume of declared timber harvested. In theory, it was to be refunded to concessionaires who reforested, but because the refund would be far less than the costs of reforesting, virtually none of the fund was ever devoted to reforestation. Thus the reforestation charge amounted to a royalty; however, it was retained by the Forestry Ministry rather than sent to the central treasury as a charge on extracting the nation's timber wealth.

### **Tighter Regulation and the Growing Centrality of the Indonesian Chinese**

Finally, around 1987 the government began to tighten up—selectively—on logging regulation, while launching several well-publicized “reforms” to increase the timber royalties. While it is true that some fines and threatened license cancellations were reversed, others were enforced, and a number of logging firms have lost their

<sup>33</sup> Philip Hurst, *Rainforest Politics: Ecological Destruction in South-east Asia* (Atlantic Highlands, New Jersey: Zed Books, 1990), p. 105; Stanley Steiner, “A Reporter At Large in the Rainforest,” *The New Yorker*, May 27, 1991, pp. 62-63.

<sup>34</sup> According to Gillis, this ban curtailed both logging very rapidly in 1981 and 1982, because sawmill capacity could not increase rapidly enough to handle the non-exportable logs. See Gillis, *Indonesia and Public Policies*, p. 55.



concessions.<sup>35</sup> This was certainly an odd way to treat the concessionaires if they indeed had, as Robin Broad puts it, “captured” forest policy away from the government.<sup>36</sup>

The political logic of this pattern is not obvious. To be sure, favoring the military has a straightforward explanation. As a relatively minor military figure who emerged from the chaos of the end of the Sukarno regime, General Suharto needed—but could not take for granted—the strong backing from the armed forces leadership. In a brilliant financial maneuver, Suharto set up “foundations” (*yayasans*) that would provide for very generous financial benefits for the armed forces and for retired military, particularly those of highest rank—as long as Suharto remained in office as president.<sup>37</sup> But why not also favor the mainstream civilian *pribumi* political elite, as was done in Sarawak, allowing them to share with the military in exploiting the under-priced concessions? Suharto did not choose this alternative. Instead, he looked favorably upon joint ventures between military officers, both active and retired, and the Indonesian-Chinese business community, despite the lack of independent political power of the Indonesian Chinese. We may speculate that Suharto may have perceived the *pribumi* business sector as believing that it was *entitled* to preferential treatment, rather than believing that such treatment would have been an indulgence provided the President. The *pribumi* elite may have been both a threat to Suharto, if it could have pursued an alliance with other contenders for political leadership, and non-essential to Suharto if he could count on military support and undercut the economic power of the *pribumi* business elite. In cutting them out of most of the rent-seeking opportunities in the oil and forestry sectors, Suharto neutralized much of the power of this group that had had the potential for independent political power. Instead, he brought in the Indonesian Chinese, a much more dependent group.

Why the ethnic Chinese? This is the most intriguing and most important question in understanding the political economy of Indonesian forestry policy. It is not enough to say that a collaboration between the ethnic Chinese and the Indonesian armed forces, including General Suharto, dates back to the 1950s.<sup>38</sup> This historical fact does not explain why the relationship was established or retained, nor whether the current rationales for maintaining it are even connected with the original motivations. There is, indeed, one consideration that makes the ethnic Chinese seem like a poor choice as the recipients of vast timber rents: they are so politically beholden to the government, and in particular to General Suharto, that directing lucrative rent-seeking opportunities to them seems like a waste of a resource. Certainly if their political support were the only factor, then billions of dollars worth of timber rents, on top of the fortunes they have been amassing through other business ventures, would have been unnecessary. Clearly the simplest rent-seeking model—the exchange of economic rents for the political support of the recipients—is inadequate to explain Suharto’s choice of the ethnic Chinese.

<sup>35</sup> Michael Ross, “The Political Economy of Boom-and-Bust Logging in Indonesia, the Philippines and East Malaysia, 1950-1994,” PhD Dissertation, Princeton University Department of Politics, 1996, Chapter 5.

<sup>36</sup> Broad, “The Political Economy of Natural Resources,” p. 331.

<sup>37</sup> These developments are analyzed with great insight in Ross, “The Political Economy,” Chapter 5.

<sup>38</sup> Schwarz, *A Nation in Waiting*, p. 28, notes that two of today’s biggest ethnic Chinese logging entrepreneurs, Liem Sioe Liong and “Bob Hasan,” were allied with Suharto as early as the mid-1950s.

However, if we look at the economic behavior of the ethnic-Chinese logging entrepreneurs, we see rather clear evidence that they reciprocate for their receipt of benefits, *at the expense of their private profit-maximization*, in the choice of some of the business ventures they undertake. For example:

- The current industrial plantation strategy has put pressure on loggers to develop plantations even though some are unprofitable<sup>39</sup>;
- Some vertically integrated wood-products companies have undertaken clearly money-losing activities, including particle-board manufacture that has positive environmental symbolism but negative rates of return.<sup>40</sup>
- Logging firms have a formal obligation to provide community development assistance to the populations near or within the concession areas. While this obligation is vague, *ad hoc*, and poorly monitored, the Forestry Ministry does have considerable influence over whether and how the obligation will be met. Therefore the very fact that the obligation is discretionary gives the Forestry Ministry the opportunity to direct the "community development" in ways that conform with particular development strategies; for example, electrification or road building. Again, by placing the financing of such development projects on the shoulders of the private sector, the Forestry Ministry can pursue these projects without having to subject them to the evaluation and approval processes of the central budget authorities.
- In 1990-91 Mr. Prajogo Pangestu and the head of another major Chinese group, Mr. Liem Sioe Liong, reportedly covered US\$420 million in foreign-exchange losses of the Bank Duta, which is largely owned by foundations connected with President Suharto.<sup>41</sup> The same source reports that Prajogo is believed to have paid for the Taman Mini theme park monorail at the behest of the President's wife, financed a biography of Suharto, and accepted the President's children Trihatmodjo and Rukmana into joint partnerships.

Other projects, whose ultimate profitability may or may not be maximizing, have been undertaken by ethnic-Chinese Indonesians with the help of President Suharto against the policy preferences of the technocrats. For example, establishing a world-scale, wholly Indonesian-owned petrochemical industry has been a major attraction for the nationalists. One enormous Indonesian-owned petrochemical venture, the US\$1.8 billion Chandra Asri olefins complex, had already begun construction by 1991, when an inter-ministerial coordinating group addressing Indonesia's increased foreign debt called for a slow-down on large development projects entailing significant foreign borrowing until 1995, and even set up a loan-coordinating group (labeled "Team 39") that had to approve the foreign borrowing of

<sup>39</sup> Jonathan Haughton, Darius Teter, and Joseph Stern, *Report on Forestry Taxation, Memorandum to Minister Saleh Afiff* (Jakarta, September 8, 1992), p. 7.

<sup>40</sup> Personal interviews, Pontianak, West Kalimantan, July 1992.

<sup>41</sup> Adam Schwarz and Jonathan Friedland, "Green Fingers: Indonesia's Prajogo Proves that Money Grows on Trees," *Far Eastern Economic Review*, March 12, 1992, p. 42.

all state-related investments in infrastructure and petrochemicals.<sup>42</sup> Chandra Asri was deemed to fall under the Team 39 restrictions because it was “state related” in the dual sense that it was designed to use naphtha inputs from the state oil company Pertamina, and had borrowed heavily from the state-owned Bank Bumi Daya.<sup>43</sup> However, although *pribumi* businessmen initially seemed to be slated to control the private-sector component of this venture, President Suharto intervened to make Prajogo Pangestu and Liem Soie Liong the major private partners. By orchestrating pressure from multinational oil companies, international banks, and even the Japanese Ministry of International Trade and Industry, their two conglomerates succeeded in gaining an exemption from the investment freeze. In short, the Indonesian Chinese have put their own funds into this questionable project and have provided the private-sector economic and political link, allowing President Suharto to avoid both becoming beholden to *pribumi* business elites or abandoning the project because of the objections from within the government.

Thus the Indonesian Chinese were included not only for their business expertise, international connections, and pre-existing business links with the armed forces, but also for their *lack* of status as an independent political force. Of course, the resentment of the Chinese on the part of the *pribumi* rose as a consequence, increasing the marginality of the Chinese should they ever lose the protection of Suharto, and thus increasing their dependence on Suharto.

The log-export prohibition raises the second puzzle, inasmuch as there seems to be an inconsistency in the political logic of imposing the export ban on the same actors who were increasingly privileged by underpriced timber royalties. One explanation is that the military no longer rated the patronage they had been receiving before. By 1980, the armed forces had been reorganized and became much less of a threat to Suharto’s control.<sup>44</sup> The simple business of contracting for the extraction and sale of logs was no longer the reward for military support; patronage now would go to those who could master the much more complex business of making a profit from manufacturing and marketing. The survivors were the firms that were adept enough to combine their access to logging concessions with their own sawmill and plywood facilities, and export connections. Many of the military officers had to sell out, moving the control of the forestry industry more firmly into the hands of the Indonesian Chinese. Second, the establishment of a wood-products industry fit into a broader strategy of industrializing the Indonesian economy even if the efficiency and profitability of these developments were questionable. The “nationalist” position in the Indonesian economic debate had (and still has) considerable ideological appeal, and, when pursued, has meant considerable economic benefits for some interests. There is no inconsistency in regarding the development of a wood products industry as both a concession to nationalist economic sentiment and a strategic end in itself. Another explanation is that the officials in the ministries of finance and industry at this point prevailed in the bureaucratic struggle over the forestry sector, with the backing of multilateral and bilateral donor agencies. Whatever combination of explanations holds, it is notable that

<sup>42</sup> Schwarz and Friedland, “Green Fingers,” p. 46.

<sup>43</sup> Ibid.

<sup>44</sup> Harold Crouch, *The Army and Politics in Indonesia* (Ithaca: Cornell University Press, 1988).

President Suharto could afford to pursue this development strategy even though it meant withdrawing some of the benefits to presumably politically powerful groups.

Now, one might ask whether this post-1987 policy regime truly represents a new strategy. After all, royalty rates have remained quite low, and regulation is sporadic.<sup>45</sup> It is still eminently possible for private loggers to make huge fortunes off of the nation's wealth through the under-pricing of state timber and selective enforcement. However, two differences are crucial. First, the concessionaires ran a risk of losing their concessions to a degree that was unheard of in the earlier period. Violations of forestry regulations *could* result in heavy fines, the withdrawal of concession rights, and other negative sanctions. In short, timber concessionaires have become vulnerable to regulation that is applied selectively by the government, particularly by the Forestry Ministry in alliance with the Presidency.

Second, the continual (if somewhat superficial) efforts at forestry policy reform not only represent a certain degree of responsiveness to pressure from environmental groups and international agencies such as the World Bank, but also put the concessionaires on notice that their *collective* performance must satisfy government objectives sufficiently to keep the reformers from wiping out the rent opportunities altogether. Thus, both individual and collective vulnerability have been introduced; the consequence is that concessionaires have to work for their privileges. A presumably unintended consequence of the pressure for reform coming from the Finance Ministry, BAPPENAS, USAID, and the World Bank has been the greater dependence of the loggers on the President's protection. Discretionary enforcement and partial reform pose risks to the already politically vulnerable Indonesian Chinese, risks which the military beneficiaries of forest rents did not have to face in the earlier period.

Thus the change in strategy that ousted the multinationals and marginalized the military in the forestry sector was not characterized so much by the elimination of rent-seeking opportunities; it instead involved shifting the beneficiaries and the terms. Initially, forest rents were offered by the government in exchange for political support from the clearly powerful military; the newer strategy initiated an exchange of forest rents for cooperation by the Indonesian Chinese in financing development projects and other off-budget initiatives. The Indonesian Chinese began as subsidiary actors in a political arrangement, involved for their business expertise; they became the linchpin of a much more complicated economic arrangement.

The "reforestation fund" demonstrates a parallel strategy of off-budget development financing, but through the state sector rather than the private sector. The fund, financed by a charge on logging ostensibly to be refunded to loggers willing to reforest their concession areas, was set at a level that effectively discouraged any such reforestation. The fund has been estimated at around US\$800 million, with no external controls or monitoring on its disposition of the funds.<sup>46</sup> There has been much speculation that the funds have been used for financing the campaigns of Suharto's

<sup>45</sup> In 1991 WALHI, *Sustainability and Economic Rent*, made a calculation, based on the government's own figures, that prevailing royalty rates were a fifth of actual stumpage values. Even after the rise of royalties from 1987 to the present, and by the most generous estimates, the government is capturing no more than 40 percent of the timber rents on declared felling.

<sup>46</sup> As of mid-1992, private sources and interviews estimated the Forestry Ministry's reforestation fund at US\$800,000,000; some interviewees believed that it had exceeded US\$1 billion.

political party, Golkar. But more important for our arguments, the retention of the reforestation fee by the Forestry Ministry has served an internal bureaucratic-alliance purpose of providing the Forestry Ministry with an incentive to cooperate with the Presidency in development activities that seem very strange for a forestry ministry, since the current concession practices and agricultural conversion policies are essentially liquidating the Indonesian forests. Yet, in addition to maintaining jurisdiction over forest-designated areas even if they are not forested, the Forestry Ministry oversees (to be sure, in partnership with the Presidency) an enormous portion of Indonesia's territory: the three-fourths that is formally designated as forest, whether or not trees stand on this land. Therefore the Forestry Ministry has had major (though not uncontested) jurisdiction over much of the on-site operations of the *transmigrasi* resettlements on the Outer Islands. As Pertamina was the "quick and dirty" development agency of the late 1960s and early 1970s, the Forestry Ministry took on this role in the late 1970s through the present.<sup>47</sup> In the late 1980s the reforestation funds were directed to the concern over diminishing timber supplies. The Forestry Ministry offered zero-percent interest loans, plus government equity participation, for the establishment of plantations ("timber estates" in Indonesian parlance).<sup>48</sup> The World Bank estimates the subsidy at US\$425 per hectare.<sup>49</sup> The claimants have largely been already established, vertically integrated timber companies.

The policy was criticized by the technocrats for the shortness of the subsidy period, which is limited to three years, and for the high likelihood that the same concessionaires who benefit from the government's low timber-rent capture would be subsidized yet again in their plantation initiatives.<sup>50</sup> The lack of subsidy beyond the third year encourages the planting of inexpensive species and minimal maintenance, leading to stands of little value at harvest time. As prohibitions against foreign ownership of concessions effectively deter the largest multinational timber companies, the provision of sufficient capital and technology for successful plantations is very much in question.<sup>51</sup> The low timber rent capture from the concession areas still makes the logging of natural forests more economically attractive to the forestry industry. Independent estimates show the plantations as having *negative* net present values.<sup>52</sup> Because these projects are largely privately unprofitable, there is an incentive to capture the benefits of the zero-interest loans by diverting the funds to other projects, and then walk away from the plantations because even successful production would be difficult to sell in light of the low prices of logs from natural forests. Finally, the initiative ignores the fact that most plantations in lowland humid tropics around the

<sup>47</sup> William Ascher, *Political Economy and Problematic Forestry Policies in Indonesia* (Durham, NC: Duke University Center for Tropical Conservation, September 1993), pp. 11-12.

<sup>48</sup> Government equity participation is considered an advantage, because the operation is more likely to receive fair or even favored treatment, rather than a disadvantage because of the risk of government interference.

<sup>49</sup> World Bank, *Indonesia: Sustainable Development*, p. 14.

<sup>50</sup> Interviews. See also Erik Scarsborough, *Some Initial Thoughts on Long Term Forestry Development Objectives and Policies in the Context of the Second Long-Term Development Plan* (Jakarta: Natural Resources Management Project, March 6, 1992), p. 14 and WALHI, *Sustainability and Economic Rent*, pp. 4, 8.

<sup>51</sup> Gillis, "Indonesia: Public Policies," p. 75.

<sup>52</sup> Haughton, Teter and Stern, *Forestry Fees*, p. 10.

world have failed. The real issue is at the heart of the technocrat vs. nationalist debate: whether to subsidize the down-stream wood-products industry.

Finally, in late 1994 it was revealed that President Suharto had directed the Forestry Ministry to make a US\$174 million interest-free loan to the state aircraft industry IPTN (Industri Pesawat Terbang Nurtanio; Indonesian State Aircraft Industry) for the development of the new N-250.<sup>53</sup> The aerospace industry had been regarded by the technocrats within the government as a wasteful, money-losing prospect that could not be justified on economic grounds. The nationalists, on the other hand, saw it as an important symbol of Indonesia's international industrial prestige and potential in high technology. It is interesting, however, that the intra-governmental clash over whether the Forestry Ministry's loan was appropriate is not what brought the issue to light; it was the angered reaction of Indonesian environmental groups. For these groups, the use of the reforestation fund for aircraft development certainly symbolized the end of any hope or pretense that the reforestation fund would be used for reforestation, even though the more skeptical environmentalists and analysts had much earlier doubts. The environmental groups filed suit against the government for this diversion, which the courts ultimately refused to hear on the grounds that it was beyond their jurisdiction.

The environmental call to arms over the diversion of the reforestation funds to the state aircraft industry is a fascinating reframing of a clash over development strategy—another subsidized nationalist initiative with a questionable economic rate of return—into an apparent conflict between development and environment. In fact, there was never any environmental impact of the reforestation fee, because it had never been seriously applied to reforestation. The real issue was how the rent captured by the Forestry Ministry, rather than the treasury, would be directed. It was clearly directed to investments that the conventional budget authorities did not support. If the rent had been captured from the loggers and moved directly to the treasury, it would have been more under the control of the technocrats and certainly more transparent in revealing which projects were economically unviable without subsidization. In short, in the reforestation fund, President Suharto had found another off-budget vehicle for pursuing projects that would be difficult or at least awkward to undertake through the conventional budget process.

#### D. Conclusions

The Indonesian forestry case is a clear demonstration of suboptimal forest policies and practices that can be linked to the off-budget pursuit of development strategies ranging from downstream wood-products to aerospace. To be sure, this motive is commingled with other motives such as political campaign finance and personal aggrandizement. Yet the fact that President Suharto has allowed and directed forestry rents to flow into investments in support of the so-called nationalist economic development strategy, specifically when liberalizing, free-market officials tended to

<sup>53</sup> Anonymous, "IPTN's Loans Converted to Equity," *Jakarta Post*, January 31, 1997.

dominate "on-budget" fiscal and monetary policy, is the clearest demonstration of this dynamic that has emerged from the examination of a large number of cases.<sup>54</sup>

My argument runs counter to the conventional view that President Suharto has simply been preoccupied with enriching himself and his family to the maximum degree possible; but it also rejects the view that the natural resource exploiters have "captured" a "weak state." The first view presumes that the machinations with

<sup>54</sup> However, it is by no means the only case of suboptimality in resource policy that can be linked to the pursuit of such programmatic objectives. The following types of resource policy failures and corresponding cases could be demonstrated with a rather high degree of plausibility:

a. *Down-stream industrialization* has been a favored strategy for wood products; several countries such as Liberia have joined with Indonesia in forcing the under-pricing of timber inputs through round-log export bans. State-led wood-products industrialization has also been subsidized by allowing the state forestry enterprise to retain royalties that should have been paid to the government, as in the case of the Honduran state enterprise COHDEFOR (Corporación Hondureña de Forestería; Honduran Forestry Development Corporation), which launched a disastrous wood-processing subsidiary, Corfino, in the 1980s.

In the oil sector, down-stream processing has been subsidized by allowing state enterprises, such as Venezuela's PDVSA and Nigeria's NNPC (Nigerian National Petroleum Corporation), to retain oil royalties rather than surrender them to the government as a private oil company would.

b. *Up-stream industrialization* was financed in Mexico by excluding foreign oil companies from engaging in exploration and allowing the state oil company PEMEX to retain large surpluses prior to 1978.

c. *Energy-intensive industrialization* has been promoted in many oil-rich countries by keeping domestic oil-products prices low. This has occurred in Mexico, Nigeria, Venezuela, and other oil-exporting countries with significant non-oil economies.

Heavy over-development of hydro-electric power by the state, and under-pricing of the electricity produced, is a similar strategy of industrial promotion in many countries. Colombia in particular has had extremely high hydro-electric costs that, in not being transferred to electricity users, have stimulated energy-intensive industries but also excessive electricity use and expenses.

d. *Agricultural development* has been stimulated by over-extension and over-subsidization of irrigation in Mexico, India, and many other countries. Land give-aways without appropriate charges for the land's intrinsic resource rent are also employed as agricultural promotion policies. This has occurred in Egypt's notorious policy of giving agricultural land to college graduates even if they lack agricultural experience and training.

e. *Regional development strategies* have been launched through the under-pricing of state-controlled resource bases in many countries. For example, Brazil's Amazonian land give-aways and cattle-ranching subsidies in the 1980s were part of a regional development strategy of Amazonian settlement, just as Costa Rica's decentralization policies gave land away outside of the central valley of San Jose.

Unwise resource development has also occurred in the oil sector, such as Peru's unsuccessful state oil exploration in the Amazon, often in areas of low prospectivity. This was, in part, also an Amazonian development strategy as well, partly in reaction to the Brazilian efforts.

In the mineral sector, the development of several "backward" districts in India has been promoted by continuing money-losing copper mines; this is as much a regional strategy as it is an income-distribution strategy.

In every case the government could have pursued the development strategy without extracting surpluses from the natural-resource exploitation process. Direct investments or inexpensive credit could have been made available from the central treasuries. This is not to argue that direct investments or subsidized credit would be good economic policy; these initiatives are all suspect in the eyes of market-oriented economists. Indeed, certain government officials resort to transfers via the natural-resource exploitation process in order to circumvent the influence of such economists and to avoid the publicity of revelations that these strategies are unsound from a broad societal perspective.

forestry concessions are simply means to enrich Suharto relatives who are so often in partnership with the Indonesian Chinese logging conglomerates. To some observers who (quite correctly) note that the logging has typically been unsustainable and environmentally damaging, the government's actions (granting logging concessions to these entrepreneurs, non-enforcement of forestry regulations, and the involvement of Suharto's relatives in the conglomerates) seem like overt nose-thumbing by a president who does not care about impressions. This interpretation presumes that the spectacle of abuse apparent to the expert observer who has access to the *Far Eastern Economic Review* is as apparent to the Indonesian public. In truth, the machinations in the forestry sector were, for many years, only murkily perceived by the public and even by rather knowledgeable Indonesians. The pursuit of development objectives through the manipulation of natural resource exploitation is less transparent than the obvious alternative of pursuing them through direct government expenditures through the central budget.

The mechanism of "laundering" timber rents through the private loggers is rather distinctive because in most other countries this laundering is conducted through state actors. This distinction has led some observers to diagnose the Indonesian situation as "state capture" by presumably powerful private groups, such as the Indonesian Chinese. The state-capture view is put perhaps most extremely by Robin Broad, who argues that in both Indonesia and the Philippines:

[the forestry] sector molds the state and influences the policy-making environment . . . [T]he political influence of those who gain economically from the exploitation of rainforest resources . . . is used to thwart proposals both for broader-based development and for environmental reform.<sup>55</sup>

[T]he abundance of natural resources has catalyzed interactions further entwining the state with privileged groups. That state finds itself without relative autonomy to pursue policies that do not reflect the short-term interests of the exploiters; parts of the state are not just politicized but are "captured." Such a state is not what has been called a "strong state" or a "developmental state"—that is, one able to formulate and implement policies independently of powerful groups.<sup>56</sup>

Broad's analysis ignores three absolutely crucial facts. First, the Indonesian Chinese logging entrepreneurs have very little independent political power; indeed, *they have been selected as successful rent-seekers precisely because of their limited independent political power*. Second, their use of profits from logging has been far from profit-maximizing. The crucial fact is that hundreds of millions of dollars worth of timber rents were destroyed by the imposition of the log-export ban, and the domestic logging concessionaires could otherwise have captured much of this value. The need for vertical integration was forced upon the domestic logging companies, often at considerable loss to these companies. The Indonesian Chinese engaged in other money-losing activities, in the classical mode of "rent dissipation" foreseen in the models of actors who, rather than controlling the state, have to compete for its favors.<sup>57</sup>

<sup>55</sup> Broad, "The Political Economy of Natural Resources," pp. 321-2.

<sup>56</sup> *Ibid.*, p. 331.

<sup>57</sup> See Robert Tollison, "Rent Seeking: A Survey," *Kyklos* 35 (1982): 575-602.



Third, the Indonesian presidency (if not the entire government or state) has been quite capable of pursuing a long-term development policy—it just happens to be a mixed nationalist *and* neoclassical strategy that is obviously not to Broad's liking, but it is a strategy nonetheless, and the Indonesian Chinese have been instrumental in furthering this strategy.

From this perspective, the state is not so much weak as it is divided; the nationalist-technocrat divide makes the game of resource-rent diversion necessary if these divisions are to be kept relatively quiet. To assert that the Indonesian state is weak because it has to keep these divisions from becoming overt would also be misguided, inasmuch as the Suharto government has been able to keep them quiet *and* pursue a mix of nationalist and technocrat-approved projects, at minimal political cost.

Several intriguing interpretive questions do remain. Why is it that President Suharto, certainly very powerful if not omnipotent, has gone to such lengths and has sacrificed the soundness of the natural resource exploitation? Could not the serious inefficiencies in the nation's second-largest foreign-exchange-earning industry be avoided if Suharto had pursued these development projects through other means, including straightforward budget allocations over the objections of the Finance Ministry, BAPPENAS, and other agencies?

One reason, surely, is that there has been an enormous premium on the appearance of consensus, as part of the *Pancasila* ideology. But why is the reduction or avoidance of apparent disunity within the government preferable to the scandals that the circumvention of the conventional fiscal authorities occasionally precipitate? Is it simply the case that in Indonesian political culture, the credibility of governance depends more on running the government smoothly than on running it without scandal?

Whatever the answers to these questions, appreciating the richness of the motivations and circumstances that have led to unsound natural resource policies and practices allows us to raise the explore the following pragmatic issues:

1) Under what circumstances would government oversight of the exploitation of a particular natural resource prevent some government agencies from sacrificing the soundness of resource exploitation in order to circumvent the influence of other agencies? For example, would the inter-ministerial oversight that seems to work well for the oil sector also work for the forestry sector? Would eco-system management reduce the incentive for agencies like the Forestry Ministry to adopt unsound policies that under current arrangements cost such agencies little in terms of their institutional interests? What would happen if the Forestry Ministry could maintain jurisdiction only over areas that are actually forested?

2) At what level of visibility and notoriety of resource abuses would the top government leaders find that the political costs exceed the benefits of hiding intra-governmental disunity? Some of the reactions to the criticisms of local groups and the international community in both the oil and forestry sectors do indicate that avoiding such notoriety is a relevant motive for some modicum of reform. In other words, how important is transparency; and how can it be combined with other actions (such as conditionalities) to reform natural resource practices?

