SHADOWS IN THE FOREST:
JAPAN AND THE POLITICS OF TIMBER IN SOUTHEAST ASIA

by

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ABSTRACT

This dissertation creates two new theoretical tools to analyze connections between politics and environmental change. The first section develops the concept of Northern 'shadow ecologies' to understand the environmental impact of a Northern state on Southern resource management. A Northern shadow ecology is the aggregate environmental impact of government aid and loans; corporate investment and technology transfers; and trade, including purchasing practices, consumption, export and consumer prices, and import tariffs. After outlining Japan's shadow ecology, the next part constructs an analytical lens to uncover salient Southern political causes of timber mismanagement. This spotlights modern patron-client links between Southern officials and private operators that debilitate state capacity to implement resource policies.

Using these analytical tools, and building on extensive primary sources and more than 100 in-depth interviews, the remainder of the thesis examines the two most important factors driving commercial timber mismanagement in Indonesia, Borneo Malaysia, and the Philippines: pervasive patron-client ties between Southeast Asian officials and timber operators; and the residual and immediate environmental impact of Japan. In a continual

struggle to retain power in societies with fragmented social control, Southeast Asian state leaders build potent patron-client networks that syphon state funds, distort policies, and undermine supervision of state implementors. In this setting, the state is often unable to enforce timber management rules as implementors -- in exchange for gifts, money, or security -- ignore or assist destructive and illegal loggers, smugglers, and tax evaders.

Japan's shadow ecology has expedited timber mismanagement, and left deep environmental scars that impede current efforts to improve timber management. Post-1990 Japanese government and corporate policy changes to integrate environmental concerns have marginally improved forestry ODA, and contributed to token corporate conservation projects. As well, there is now less Japanese investment, technology, and credit linked to logging. But massive timber purchases from unsustainable sources, wasteful consumption, timber prices that ignore environmental and social costs, import barriers that deplete Southern revenues, and the residual impact of past Japanese practices continue to accelerate destructive logging in Southeast Asia.

Sustainable tropical timber management will require fundamental changes to Japan's shadow ecology. It is also imperative to confront Southern political forces driving deforestation. While reforms will certainly face formidable -- perhaps insurmountable -- political and economic barriers, unless the world community tackles these issues, the remaining primary forests of Southeast Asia will soon perish.

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Chapter One

NORTHERN SHADOW ECOLOGIES

Annual tropical deforestation is around 17 million hectares.¹ Despite incremental improvements, illegal and legal logging remain a key cause of deforestation in Southeast Asia. Asian governments target the year 2000 for sustainable management of tropical timber. There is almost no hope of reaching this goal. Primary rain forests continue to be cut and sustainable yields remain as elusive as ever.² There are both direct agents and indirect forces contributing to rapid, careless, short-sighted extraction. While Southern state managers and timber operators play direct roles, Northern money, consumption, technology, and trade practices are crucial factors supporting and driving mismanagement. These indirect Northern forces cast an oppressive shadow that constrains Southern decisions, provides incentives for quick profits, and accelerates the process of deforestation.

This dissertation concentrates on the most important Northern force behind logging mismanagement in Southeast Asia -- Japan -- and the central Southern factor -- politics and policy implementation. I argue that current and past Japanese government

¹Food and Agriculture Organization (FAO) data in National Science Teachers Association, World Resources 1992-93. A Guide to the Global Environment (Washington: National Science Teachers Association, 1992), p.118. Deforestation is defined as the complete loss of the original forest eco-system.

²Little has apparently changed since the International Tropical Timber Organization estimated in 1989 that less than one percent of tropical timber is managed at sustainable yields.

policies, corporate practices, and trade combine to act as a catalyst driving commercial timber mismanagement in Indonesia, the Borneo Malaysian states of Sabah and Sarawak, and the Philippines.³ These policies and practices limit state decisions, provide incentives for destructive extraction, and support unsustainable timber export rates. In recent years, the Japanese government and major corporations claim that significant moves have been made to integrate overseas environmental concerns. I examine the new Environment Law, and policy changes at key ministries, the aid and loan agencies, and general trading companies. I show that these policies -- while providing marginal contributions to conservation and reforestation -- have conspicuous flaws: wording is vague, there are few enforcement mechanisms, and sanctions are unclear. Seen in light of the consequences of Japan's historical practices, and of contemporary problems, these efforts are essentially cosmetic. More disturbingly, they create a smokescreen that obscures the more important consequences of wasteful Japanese consumption, export and consumer prices that ignore environmental costs, import tariffs that syphon Southern revenues, log purchases from unsustainable sources, and the residual environmental effects of past practices.

Japan's impact on Southeast Asian timber management can easily be exaggerated or oversimplified and must be understood in the context of Southeast Asian politics. To uncover the salient

³For simplicity, the term Southeast Asia refers primarily to my case studies. Notably, I do not examine Thailand since Japan has had a smaller role in driving extensive deforestation in Thailand.

domestic causes of timber mismanagement, I develop an analytical lens that focuses on the links between patron-client relations and policy implementation. I argue that Southeast Asian leaders -- in a constant struggle to retain power in societies with fragmented social control -- build powerful patron-client networks and allow material-based patron-client ties to flourish at all levels of the state and society. These pervasive clientelist ties -- often sustained by timber profits -- distort policies, deplete state revenues, obscure responsibility, channel profits to an unaccountable elite, and undermine supervision of state implementors. In this context, the state is too weak to respond to the environmental crisis in forestry, and to control destructive timber operators, illegal loggers, smugglers, and tax evaders.

Understanding Japan's impact on timber management in this setting leads to some important conclusions. Higher international prices for tropical timber, greater Southern timber revenues, revised Overseas Development Assistance (ODA), compensation for past practices, and increased environmental investment, while in theory essential for sustainable logging, will not automatically improve timber management. Increased Southern revenue may simply add to the wealth of a small elite, or to investments outside of the forestry sector, and do little to improve management. In the context of Southeast Asian politics, higher prices could even increase incentives to mine the forests and make quick money. Sustainable management will require the world community to confront Southern political forces that disable state policy implementation,

undercut state revenue, and drive mismanagement. Unfortunately, there are few optimistic signs. Japanese corporations continue to thrive in the political setting of Southeast Asia, importing vast tracts of remarkably cheap timber from unsustainable sources. With powerful business, military, bureaucratic, and political patron-client networks fuelled by timber, states unable or unwilling to halt the ensuing destruction, and Japan accelerating the process, it is hardly surprising to find rampant deforestation.

RATIONALE FOR THE CASE STUDIES

Comparing the impact of Japan on tropical timber management in Indonesia, Borneo Malaysia, and the Philippines is logical for several reasons. From the 1950s to the beginning of the 1990s, these three areas supplied around 90 percent of Japan's tropical log imports from Southeast Asia. They have also been the major hardwood exporters of Southeast Asia, accounting for over half of world exports; meanwhile, since the 1960s, Japan has consistently remained the world's largest importer of tropical timber, today consuming nearly one-third of the world total.⁴ As a result, Japanese government and corporate practices have had significant environmental and economic consequences for Southeast Asian timber management.

Focusing on areas with similar cultural backgrounds and

⁴Japan consumes more than Belgium, Denmark, France, West Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, and the United Kingdom put together. Kenton Miller and Laura Tangle, Trees of Life: Saving Tropical Forests and Their Biological Wealth (Boston: Beacon Press, 1991), p.30.

similar historical, political, and economic ties to Japan reduces the number of divergent variables surrounding my analysis, therefore making it easier to generalize and evaluate whether Japanese practices are changing. There have been marginal improvements to Japanese forestry aid and some token corporate conservation projects. As well, there are now fewer tropical logging investments and technology transfers. But Japan's basic pattern is consistent: to facilitate rapid, destructive cutting techniques; support unsustainable timber production; maximize high-quality log imports at the lowest possible price; protect Japanese plywood processors that feed on cheap tropical logs; and syphon Southern revenues essential for sustainable management. As commercial forests inevitably disappear, or when Southern governments sever supply lines, Japanese trading companies have simply moved to new sources. This pattern has been remarkably consistent. At present, as imports from Borneo Malaysia drop, Japanese companies are moving to Papua New Guinea and the Solomon Islands. Japanese companies are also preparing for the worldwide collapse of tropical timber supplies, developing techniques to substitute softwood from places like Russia, New Zealand, China, Canada, and the United States.

These cases also reveal notable differences in the environmental and economic impact of Japan depending on the reactions of Southeast Asian governments. In the Philippines, taking advantage of greedy elites and inadequate state supervision, Japanese companies purchased massive volumes of logs to supply

domestic plywood processors. By the time the Philippine government banned log exports in 1986, the commercial timber industry had collapsed. In sharp contrast, as multinational companies financed and accelerated destructive logging in Indonesia, the Indonesian government gradually banned log exports in the first half of the 1980s, severed most foreign timber investments, and provided strong incentives to process logs locally. As a result, Indonesia became the world's dominant tropical plywood producer. Japan now imports a significant quantity of Indonesian plywood, forcing many Japanese plywood processors out of business. In Sabah and Sarawak, Japanese traders again funded and supported log export operations similar to those that devastated the Philippines. In 1993, after the near exhaustion of valuable commercial timber, the Sabah government banned log exports, attempting to establish a processing industry similar to Indonesia's. Sarawak is now the main source for Japanese tropical logs. Sarawak has also imposed some restrictions on log exports, but unlike Indonesia, the Philippines, or Sabah, government leaders perceive Japanese log purchases as beneficial and there are no plans to ban exports.

RESEARCH PARAMETERS

The boggling array of factors that influence Southeast Asian timber management and the potential for endless diversions has forced me to focus my research. I concentrate on commercial logging in primary and secondary forests, and to a lesser extent on

the management of plantations.⁵ Reaching sustainable timber production, reducing destructive logging, and protecting primary forests are my main environmental concerns;⁶ my primary economic concern is maximizing the amount of money invested in sustainable Southern timber management. Without denying their importance for sustainable tropical forestry, only passing references are made to land use rights, indigenous rights, swidden farming, and social and community forestry. Addressing these issues would make my project too unwieldy and divert attention from my central concern, the impact of Japan and Southern politics on commercial timber management.

I also do not address Japanese contributions to multilateral institutions. Although these are undoubtedly important -- Japan is the biggest contributor to the Asian Development Bank (ADB), the

⁵Logging in Southeast Asia is a critical agent behind deforestation. Logging of primary forests -- which creates secondary forests -- routinely causes degradation. (Degradation is defined as a partial change to a forest eco-system that reduces its economic, biological, or environmental value.) In some cases, loggers clear-cut forests, although this is generally limited to areas designated for agriculture or large-scale development projects (e.g. hydroelectric dams). Logging is usually the first step in a process that leads to deforestation: by establishing roads that provide access to slash-and-burn farmers; by leaving debris and creating open spaces that make secondary forests susceptible to fires; and by decreasing the economic value of the forest, providing incentives to convert logged areas to other land uses.

⁶Sustainable timber production is defined as doing nothing that will "irreversibly reduce the potential of the forest to produce marketable timber." Duncan Poore, "The Sustainable Management of Tropical Forest: the Issues," in Duncan Poore, ed., No Timber Without Trees: Sustainability in the Tropical Forest. A Study for ITTO. (London: Earthscan Publications Ltd., 1989), p.5. Poore explains this concept in detail.

second largest to the International Monetary Fund and the World Bank, and strongly backs organizations like the International Tropical Timber Organization (ITTO) -- it is exceedingly difficult to determine the extent to which Japanese money shapes the policies and practices of these organizations.⁷ Reluctantly, to avoid diluting an understanding of Japan's bilateral impact on timber management, I also do not delve into the role of related pressures created by Southern debt, though this hovers in the background. While foreign debts undeniably create incentives to export resources to meet payments,⁸ it is quite difficult to isolate and analyze Japan's contribution to these debts. It is equally difficult to determine the role this then has on the management of one resource. Also lingering in the background, but not directly analyzed, is the importance of population growth, poverty, non-forestry policies, low status of environmental concerns in the bureaucratic hierarchy, as well as the impact of other industrialized countries, international financial organizations, and world pressure to 'develop'. These factors are certainly important. But directly tackling them would push my work toward

⁷The ADB is sometimes portrayed as being under Japan's thumb. Yet it is simplistic to equate Bank policies with Japanese interests. According to a Bank official, Japan does not shape policy; rather, the Japanese government has 'piggy-backed' intellectually on the policies of the Bank. Interview, Senior ADB official, Manila, 31 January and 4 February 1994. Similar comments were made about Japan's influence over the ITTO. Interview, ITTO official, Tokyo, 6 April 1994.

⁸See for example, Patricia Adams, Odious Debts: loose lending, corruption, and the Third World's environmental legacy (Toronto: Earthscan Canada, 1991); and Susan George, The Debt Boomerang: How Third World Debt Harms Us All (London: Pluto Press, 1992).

ground already well covered by other writers and deflect me from the largely unexplored terrain of the environmental impact of bilateral South-North relations on the commercial management of one Southern resource.

Other authors point to the power of the North to shape resource management in the South; yet, most resort to general, sometimes glib, connections. A precise assessment is difficult, demanding extensive background on Southern political settings and Northern policies. Chapter Two describes recent changes to Japanese corporate and government policies that shape Southern resource management. Chapter Three builds a comparative framework -- the patron-client model modified to give more focus on the state and policy implementation -- to analyze the connections between domestic politics and resource management in Southeast Asia. Chapters Four to Six outline the politics of timber management in Indonesia, Borneo Malaysia, and the Philippines with particular attention to Japan. The Philippine chapter begins the ascent to the conclusion and sketches the key Southern political factors driving timber mismanagement in Southeast Asia. Building on these empirical studies, and in the context of recent Japanese policies, the conclusion assesses the impact of Japan on Southeast Asian timber management and explores possible reforms to reshape the environmental impact of Japanese aid, investment, and trade. To maintain focus throughout this project, I concentrate mainly on political factors, contributing to the emerging sub-field of

political ecology.⁹

POLITICAL ECOLOGY STUDIES OF SOUTH-NORTH RELATIONS

Academics concerned with natural resource management increasingly see political forces as critical factors driving environmental degradation. Political ecology studies broadly examine connections between politics and environmental change. These studies are diverse, addressing a range of issues, dealing with local, national, and international politics, and reaching a variety of conclusions. Specific political features examined include: local -- often indigenous -- conflict over access to land and water; Southern policies, practices, and elite corruption; Northern ODA, multinational corporations (MNCs) and trade; interstate war; Southern debt and pressures by multilateral financial and technical organizations; capitalism and its accompanying world system; and complex combinations of these variables.¹⁰

A neglected area of political ecology studies is the peaceful

⁹This helps fill a gap in the literature on forestry management. Until recently, scholars have focused on technical or economic factors behind logging mismanagement with relatively little attention to political forces. Furthermore, international forums and publications have avoided sensitive discussions of political connections.

¹⁰Raymond L. Bryant, "Political Ecology: An emerging research agenda in Third-World studies," Political Geography 11 (January 1992), pp.12-36 reviews this literature. For a specific example of a political ecology framework, see Nancy Lee Peluso, "The Political Ecology of Extraction and Extractive Reserves in East Kalimantan, Indonesia," Development and Change 23, no. 4 (October, 1992), pp.49-74.

interaction between states.¹¹ One reason is the difficulty of isolating and clarifying important Northern factors that shape resource management in the South. There is a danger of exaggerating or oversimplifying the impact of the North as variables are removed from the context of the world capitalist system and Southern political settings. There is also a risk of including too many aspects, diluting or diverting attention from more important factors. To spotlight the most important elements of bilateral Northern influence on Southern resource management, I develop the concept of Northern shadow ecologies.

NORTHERN SHADOW ECOLOGIES

The genesis of the term 'shadow ecology' comes from the argument that economically powerful industrialized countries

draw upon the ecological capital of all other nations to provide food for their populations, energy and materials for their economies, and even land, air, and water to assimilate their waste by-products. This ecological capital, which may be found thousands of miles from the regions in which it is used, forms the 'shadow ecology' of an economy. ... In essence, the ecological shadow of a country is the environmental resources it draws from other countries and the global commons.¹²

¹¹See Ibid., p.16.

¹²Jim MacNeill, Peiter Winsemius, and Taizo Yakushiji, Beyond Interdependence: The Meshing of the World's Economy and the Earth's Ecology (Oxford: Oxford University Press, 1991), pp.58-59. The authors argue that "oceans, the atmosphere (climate), and other 'commons' also form part of this shadow ecology." Ibid., p.58. However, because of the complexity of this topic, and since my empirical data relates to forestry, I will **not** examine aspects connected to the global commons but will limit my discussion to factors that directly relate to interstate relations.

As the authors note, a country like Japan, which has a limited resource base, has developed an extensive shadow ecology to support rapid industrial growth. Unfortunately, this idea is not examined in detail. The goal in the following section is simple: to delineate clear definitional boundaries to boost the heuristic power of the term shadow ecology.

Environmental resources include water, trees, minerals, soil, and air. Yet shadow ecologies are more than the number of trees and minerals consumed, the amount of soil removed, and the extent of water and air polluted. To fully understand the importance of a Northern shadow ecology, it is imperative to go beyond merely counting the amount consumed or destroyed and examine the price paid and the impact on resource *management*. Given time, money and knowledge, many environmental resources -- certainly commercial timber -- can be managed as a sustainable economic asset. Accepting this assumption, a Northern country that consumes enormous quantities without paying and without restoring degraded areas draws far more environmental resources than another country consuming the same amount, yet paying high prices for resources from sustainable sources, and providing technical and financial support to facilitate better management. For this reason, the term shadow ecology embraces the amount consumed, the price paid, the source of the resource, and the effect of ODA, government loans, corporate investment, technology transfers, and trade policies on resource management. In other words, a Northern shadow ecology is the aggregate environmental impact on the management of a Southern

resource of three sets of factors: government assistance, including ODA and loans; corporate investment and technology transfers; and trade, including corporate purchasing practices, export and consumer prices, amount and 'type' of consumption, and import barriers. Japan's 'ecological shadow of timber' in Southeast Asia is the aggregate environmental impact of these factors on tropical timber management.

Some caveats and boundaries further refine this definition. First, actions of Southern governments, or international financial pressures can aggravate or alleviate shadow ecologies. To create a balanced perspective, it is imperative to view a shadow ecology in the context of Southern politics, and keep in mind the role of the world capitalist system in shaping attitudes and practices. Second, an ecological shadow is a result of both intended and unintended consequences of Northern government, corporate and bank actions. It is not a result of a guided or conscious plan. This is especially relevant for Japan where the decision making process is fragmented - what Karl van Wolferen calls a "truncated pyramid."¹³ It is, however, still possible to control the consequences. Public and private policies in both developed and developing countries can significantly alter the impact of a Northern shadow ecology on resource management in the South.

Third, the term shadow ecology implies a two way dependence. A country like Japan relies on Southern raw materials, while the

¹³See Karel van Wolferen, The Enigma of Japanese Power: People and Politics in a Stateless Nation (New York: Macmillan London Limited, 1989).

South relies on Northern markets, technology, aid and investment. This moves "beyond interdependence" in its limited economic sense, and suggests a "meshing of the world's economy and the earth's ecology."¹⁴ The relationship, however, is asymmetrical since environmental change more immediately affects the South. Economic and ecological interdependence suggests an inevitable impact of economic activity in the North on the environment of the South and, furthermore, an inevitable impact of environmental change in the South on the economies of the North.¹⁵ Accepting this assumption, it makes sense to conceive of shadow ecologies on a continuum where sustainable activity falls on one end and environmental destruction falls on the other end. The logical task for policy makers, then, is not to eliminate shadow ecologies but to minimize and counteract any negative consequences. Ideally, sustainable activity would involve South-North interaction that encourages mutual and equitable development, while environmental change is sustainable.

Fourth, shadow ecologies change intensity and composition. The relative importance of various components depends on the states involved, environmental attitudes and values, the resource sector, and the historical period. For example, the relative importance of factors (such as ODA/loans, consumption, corporate investment, or trade practices) and the cumulative impact of Japan's shadow

¹⁴Maurice Strong, Introduction to MacNeill, Winsemius, and Yakushiji, Beyond Interdependence, p.v.

¹⁵See Ivan L. Head, On A Hinge Of History: The Mutual Vulnerability of South and North (Toronto: University of Toronto Press, 1991).

ecology in the Philippines in 1975 is different from Indonesia in 1993. Finally, economic growth entails environmental costs. Historically, shadow ecologies have transferred environmental costs to the South of economic growth in the North. Yet, it is important not to oversimplify and exaggerate. Northern ODA, investment, technology, and trade are certainly important factors shaping environmental management in the South. But these are only part of the explanation, their importance varies depending on the context, and they can simultaneously have both negative and positive implications for management. Although South-North interaction has had many destructive consequences in the past, a complete break would not assure sustainable practices. Northern money, information, technology and training -- modified to fit Southern knowledge, experience, and conditions -- is the only practical route to sustainable management.¹⁶ For background and further clarity, the next section examines some of the theoretical debates regarding the environmental impact of ODA, Northern technology, corporate investment, and trade on Southern resource management.

ODA, GOVERNMENT LOANS, TECHNOLOGY AND THE ENVIRONMENT

The environmental impact of ODA (grants, technical assistance, and concessional loans) and government loans not qualifying as ODA,

¹⁶This is generally accepted by the South. Northern assistance -- especially technology transfers on noncommercial terms -- has been a priority for developing countries during international environmental negotiations. Gareth Porter and Janet Welsh Brown, Global Environmental Politics (Boulder: Westview Press, 1991), p.129.

have been extensively examined in recent years.¹⁷ The media, nongovernmental organizations (NGOs), and environmentalists have scrutinized mega-development projects financed by multilateral and bilateral aid which create sensational environmental change. Popular interest in such schemes is further aroused by stories of corruption, connections to Northern corporations, and destruction of aboriginal cultures. Academic work has also looked closely at the links between environmental destruction and poorly conceived aid and loan priorities and projects, badly designed and managed Northern aid agencies, and strategic use of aid and loans to promote Northern business.¹⁸ Some scholars, however, are wary about the connections made between ODA and environmental change. According to William Adams, while clearly a factor, "it remains an open question...as to how much influence aid agencies actually have on the nature and course of development projects. The power of aid donors is often exaggerated, and of course varies a great deal."¹⁹ Moreover, it is important not to discount ongoing changes to aid policies as environmental awareness grows, and aid is 'greened'.²⁰

¹⁷Much of this research was sparked by the World Commission on Environment and Development, Our Common Future (Oxford: Oxford University Press, 1987).

¹⁸For example, Teresa Hayter, Exploited Earth: Britain's Aid and the Environment (London: Earthscan Publications, 1989).

¹⁹William M. Adams, Green Development: Environment and Sustainability in the Third World (London: Routledge, 1990), p.166, quoted in Bryant, p.16.

²⁰Bryant, "Political Ecology," p.16. See Czech Conroy and Miles Litvinoff, eds., The Greening of Aid: Sustainable Livelihoods in Practice (London: Earthscan, 1988). Conroy and Litvinoff provide thirty-four cases of aid projects with positive

Assessing the environmental impact of ODA and nonconcessional lending is clearly difficult, and its importance debatable. There is a tendency -- especially in government publications -- to assume *all* reforestation or environmental technologies are beneficial. There is an equally dubious tendency among NGOs and environmentalists to label *all* Northern aid as a capitalist ploy to exploit the natural resources of the South. Since Northern money has the potential for both negative impacts -- as when funding ill-conceived dams, roads, and equipment purchases -- and positive impacts -- as when funding conservation and environmental education -- it is necessary to weigh each situation carefully, avoid simplistic condemnations, and consider its importance relative to the overall environmental problems.

Technological transfers -- by Northern governments through ODA or loans, or by MNCs as part of investment -- can potentially alleviate environmental problems by, for example, replacing inefficient processing facilities and reducing pressure on a resource.²¹ But technology can also create havoc by accelerating extraction and production before effective plans and policies are

environmental consequences.

²¹Numerous influential studies argue that the diffusion of environmentally sound technology is critical for Southern sustainable development. For example, see World Commission on Environment and Development, Our Common Future, p.87; and Linda Starke, Signs of Hope: Working Towards Our Common Future (Oxford: Oxford University Press, 1990), p.165.

in place.²² Martin Khor Kok Peng, director of the Third World Network, argues that "the importation of inappropriate Northern technologies has progressively destroyed the more ecological indigenous production systems in the south, besides simply destroying natural resources."²³ As with aid and loans, technology is a double-edged sword and the environmental consequences must be weighed carefully.

MULTINATIONAL CORPORATIONS AND THE ENVIRONMENT

According to Nazli Choucri, all theories of multinational corporations, including international relations studies in political science, "ignore the impacts of corporate activities on the natural environment and on ecological balances." These theories seem to assume "private investments and actions crossing borders are neutral relative to environmental, ecological, or atmospheric impacts."²⁴ Of course, many less 'theoretical' studies

²²For a general discussion of the relationship between technology and the environment, see Amitav Rath and Brent Herbert-Copley, Green Technologies for Development: Transfer, Trade and Cooperation (Ottawa: International Development Research Centre [IDRC], 1993).

²³Martin Khor Kok Peng, "North-south relations revisited in light of UNCED," Briefing Paper for UNCED, no. 8, 1991, p.6. For a critique of the environmental impact of Northern technology transfers, see Ecologist, "Mainstream Solutions," Ecologist 22, no. 4 (July/August 1992), pp.187-192.

²⁴Nazli Choucri, "Multinational Corporations and the Global Environment," in Global Accord: Environmental Challenges and International Responses (Cambridge: MIT Press, 1993), p.220.

have examined the links between MNCs and environmental change.²⁵ Yet this gap in the MNC literature is indicative of a superficial understanding of the connections between environmental change and corporate investment and practices.

MNC investors often create incentives and the means for rapid exploitation of Southern resources. These firms also invest little in environmental projects such as reforestation, which have low profit margins, long-term returns, and high risks. As well, multinational companies purchase enormous quantities of remarkably cheap natural resources from unsustainable sources. Driven by these investment and purchasing practices, Southern partners ignore long-term management principles and quickly deplete resource stocks. In the 1980s, MNCs became more conscious of environmental issues. There is, however, little evidence of concrete changes to multinational behaviour in the South.²⁶

TRADE AND THE ENVIRONMENT

World trade swamps the financial flows of debt and aid. Annual world trade in goods is US\$3.5 trillion; including commercial services it reaches US\$4.3 trillion. In comparison, total annual ODA is only US\$55 billion, while Southern debt service

²⁵For example, see the articles in Charles S. Pearson, ed., Multinational Corporations, Environment, and the Third World: Business Matters (Durham: Duke University Press, 1987).

²⁶Roger D. Stone and Eve Hamilton, Global Economics and the Environment (New York: Council on Foreign Relations Press, 1991), pp.42-43.

stands at US\$130 billion.²⁷ After an initial spurt in the 1970s, then a lull in the 1980s, there has been an explosion of writing in the 1990s on the links between trade and environmental management.²⁸ Hal Kane argues that trade is essentially "taking products made by using the environment, or taking the environment itself, and sending it off to other countries."²⁹ Understood in this way, trade inevitably creates environmental change. Yet change itself is not a problem; even sustainable development requires change. What is crucial is the impact of trade on resource management -- whether it contributes to sustainability or irreparable change. This discussion must be approached cautiously: the arguments linking trade to the environment are complex and "there are few absolutes."³⁰ Four key trade issues that shape Southern resource management -- consumption, price, export

²⁷Charles Arden-Clarke, "An Action Agenda for Trade Policy Reform to Support Sustainable Development: A United Nations Conference on Environment and Development Follow-up," in Durwood Zaelke, Paul Orbuch, and Robert F. Housman, eds. Trade and the Environment: Law Economics and Policy (Washington: Island Press, 1993), p.72.

²⁸For background, see Tom Wathen, "A Guide to Trade and the Environment," pp.3-22 and Charles Pearson, "The Trade and Environment Nexus: What is New Since '72?" pp.23-32 in Zaelke, Orbuch, and Housman, eds., Trade and the Environment, and Patrick Low, "International Trade and the Environment: An Overview," pp.1-14 and Judith Dean, "Trade and the Environment: A Survey of the Literature," pp.15-28, in Patrick Low, ed., International Trade and the Environment (New York: World Bank, 1992).

²⁹Hal Kane, "Managing Through Prices, Managing Despite Prices," in Zaelke, Orbuch, and Housman, eds., Trade and the Environment, p.58.

³⁰Zaelke, Orbuch, and Housman, eds., Trade and the Environment, p.xiv.

restrictions, and import barriers -- are particularly contentious.

A. Consumption

For classical economists, rising consumption (demand) is a key element for economic growth. This assumes consumption is good: more food, more televisions, more luxurious homes and cars, all lead to greater prosperity and happiness. This ingrained view is increasingly being challenged, especially as the disparity continues to grow between rich Northern consumers and destitute Southern survivors. Cities are now polluted by swarms of vehicles; dumps are full of old appliances; rivers, lakes, and oceans are saturated with waste and chemicals; deserts are expanding and forests disappearing. As environmental problems spread, 'environmental economists' have begun to question conventional economic indicators and analysis. They argue that economic growth and resources are finite; it is therefore essential to differentiate between quality consumption and the quantity consumed. 'Wasteful' consumption such as excessive packaging, three car families, or disposable tropical wood products contributes to mounds of garbage, pollution, and loss of biodiversity. 'Conscientious' consumption can 'save' resources which can be transferred to food, housing, medical facilities, education, and improved resource management in the South. In this view, shifting the pattern of world consumption from one of 'blind' consumption to 'conscientious' consumption is necessary for

equitable and sustainable development.³¹

B. Price

Consumption and price are inseparable: lower prices encourage higher consumption while higher prices tend to lower consumption. Conventional economists argue that free markets create a natural equilibrium between supply and demand that generates a 'fair' price. Yet, according to environmental economists, free markets fail "to properly value the services that the environment provides."³² Prices paid by Northern consumers do not reflect environmental or social costs. Primary rain forest timber is particularly underpriced.³³ By treating the commons as a free good, the market "'externalizes,' or transfers to the broader community, the costs of resource depletion...in the form of damages to ecosystems." As a result, "today's trade patterns contain a massive transfer of the environmental costs of world GNP to the

³¹For a discussion of the links between Northern consumption of luxury goods and Southern environmental degradation and human suffering, see Martin Khor Kok Peng, "The global environment crisis: a Third World perspective," Briefing Paper for UNCED, no. 5, 1991; Jyoti Parikh and Kirit Parikh, "Consumption patterns: the driving force of environmental stress," Bombay, Indira Gandhi Institute of Development Research, 1991, in NGONET 0795, computer database of the Alternative Conference at UNCED, Rio de Janeiro, 1992; and Bunker Roy, "Population or Over-Consumption: Which is Destroying the World?" India, SWRC, 1992, in NGONET 1251.

³²Kane, "Managing Through Prices," p.60.

³³While perhaps extreme, the Center for Science and Environment in New Delhi estimates a mature tree in India is worth US\$50,000. Alan Thein Durning, "Let's Put a Proper Price on Trees," International Herald Tribune, 3 February 1994.

resource-based economies of developing countries."³⁴

Low resource prices, along with poor revenue capture and subsidies by Southern governments,³⁵ encourage even greater extraction to earn foreign exchange, and preclude investment in sustainable production. Furthermore, "underpricing...natural resources encourages wasteful and environmentally destructive patterns of consumption throughout the world."³⁶ For a realistic chance of sustainable management, it is necessary to maintain stable world commodity prices,³⁷ and 'internalize' the cost of traded resources -- that is, generate a price, perhaps through trade measures, sufficient to support the added expense of careful, long-term management and account for losses connected to inevitable ecological changes.³⁸

³⁴MacNeill, Winsemius, and Yakushiji, Beyond Interdependence, p.37 and p.21. For more detail, see Stewart Hudson, "Trade, Environment and the Pursuit of Sustainable Development," in Low, ed., International Trade, pp.55-64.

³⁵For a discussion of the links between Southern subsidies and resource depletion, see Edward B. Barbier, Joanne C. Burgess, and Anil Markandya, "The Economics of Tropical Deforestation," Ambio 20, no.2 (April, 1991), p.55.

³⁶Charles Arden-Clarke, "South-North Terms of Trade: Environmental Protection and Sustainable Development," International Environmental Affairs 4, no. 2 (Spring 1992), p.124.

³⁷See chapter three, "The Role of the International Economy," World Commission on Environment and Development, Our Common Future.

³⁸See Arden-Clarke, "South-North Terms of Trade," pp.122-137. For a strong critique of 'environmental economics' -- especially the disregard for values and rights -- see Ecologist, "Mainstream Solutions," pp.173-179. In my view, pointing to the need for prices to internalize environmental costs is not a monstrous vision reducing people and culture to money -- rather, it accepts the fact that money is necessary to implement policies to protect the environment.

To combat ideological blinders behind policies of ever-higher production and economic growth, there is a "world-wide effort...to explore the possibility of modifying the conventional economic accounts in order that they may better reflect environmental and natural resource degradation."³⁹ Robert Repetto argues that "failing to allow for depreciation of natural resource stocks when they are depleted or degraded disguises the sacrifice of future consumption, overstates income and capital formation, and justifies policies that waste natural resources in the name of economic growth."⁴⁰ By expressing environmental losses in monetary terms, economic statistics -- touted by many governments as proof of their competence -- can be corrected to reflect environmental degradation. Presumably, this will provide strong incentives to improve management as governments strive to maximize these new economic indicators. While technically difficult, the most innovative attempts to revise economic accounting include "the costs of environmental degradation and resource depletion occurring outside the country but related to consumption within the country" -- for example, when resources are imported "at a price below the

³⁹Philippine Department of Environment and Natural Resources, The Philippine Natural Resources Accounting Project: Executive Summary (Manila: Department of Environment and Natural Resources, 1991), p.1.

⁴⁰Robert Repetto, Promoting Environmentally Sound Economic Progress: What the North Can Do (Washington: World Resources Institute, 1990), p.3.

costs of their sustainable exploitation."⁴¹ Ignoring these overseas environmental costs inflates the estimate of annual increases in gross domestic product.

C. Southern Export Restrictions

The environmental impact of Southern restrictions on resource exports is confusing and the empirical evidence ambiguous. Putting aside the possibility of a complete break in South-North trade ties, there are three basic scenarios: no restrictions, a ban on unprocessed exports, and partial restrictions on unprocessed exports. Free market advocates argue that bans or partial restrictions reduce competition and foreign demand, lower prices, entrench domestic political interests and contribute to over-exploitation of natural resources. A free market leads to economic growth and provides sufficient income for effective management. At the other extreme, many advocates of a ban on unprocessed exports argue that free markets do not account for environmental and social costs and contribute to the South remaining underdeveloped and dependent on Northern markets and manufacturing. To add value and break this dependency, it is essential to promote trade in processed products. While temporary economic and environmental setbacks may occur, processing generates jobs, adds value, diversifies the economy, and creates incentives to sustain the

⁴¹Roefie Hueting, Peter Bosch, and Bart de Boer, Methodology for the Calculation of Sustainable National Income (Switzerland: WWF International, 1992), p.5. The authors use the term 'environmental burden' to measure the impact of consumption on overseas resource depletion and environmental change.

resource in the long term. Recognizing the management problems of a free market and of export bans, some analysts see partial restrictions on unprocessed exports as the best of both worlds -- keep some foreign demand and competition to maintain higher prices, yet still promote processing for economic development, more employment, and long-term management incentives.

This theoretical debate seems unresolvable. There are management benefits and drawbacks of free markets, export restrictions, and processing. It is common for environmentalists to call for export bans on unprocessed resources to enhance environmental protection. Undeniably, countries with unrestricted resource exports have serious management problems. Yet, setting aside long-term economic considerations, it is also clear that either full or partial Southern restrictions on unprocessed natural resource exports and incentives to promote finished exports *do not* immediately improve management. In short, whether processed, semi-processed or unprocessed resources are exported does not have a decisive impact on management. The quantity of exports, the export and consumer prices, the source of the resource, and enforcement of state regulations are far more important.

D. Northern Tariffs and Import Restrictions

Northern tariffs can reduce timber consumption and raise Northern consumer prices. In theory, if Northern governments transferred tariff revenues to the South, or if special tariffs were imposed on timber from unsustainable concessions, then import

charges could promote sustainable management. But this has never occurred in practice. Instead, Northern tariffs -- which commonly escalate with the degree of finishing -- have syphoned Southern revenues, undermined local processors, and prevented Southern economies from diversifying. Instead of protecting Southern environments, Northern tariffs have contributed to over-exploitation and mismanagement.

Unilateral Northern import bans and quotas can protect endangered species and quickly reduce consumption. In theory, import restrictions on resources produced from unsustainable sources and open markets for resources produced from sustainable areas could enhance management. But in practice, Northern importers do not distinguish between the source of resources. For this reason, import barriers are crude instruments that easily misfire. Without compensation, Northern import restrictions can create economic hardship in the South. These can lower Southern resource prices and decrease the economic value of resource stocks. As well, Northern import restrictions may only reduce consumption temporarily as new markets absorb the slack. In the case of tropical timber, a study for the ITTO concludes that there is a need to "improve rather than restrict access to import markets for tropical timber products." The report argues that "by adding value to forestry operations, the trade in tropical timber products could act as an incentive to sustainable production forest management -- provided that the appropriate domestic forest management policies

and regulations are also implemented by producer countries."⁴²

CONCLUSION

In sum, a Northern ecological shadow takes the form of the resources drawn from the global eco-system. More precisely, for bilateral South-North interaction, it is the cumulative environmental impact of aid, technology, corporations, and trade on the management of a Southern resource. The intensity of shadow ecologies and the relative impact of different components is shaped by Northern policies and practices, Southern responses (such as export or investment restrictions), the value of the resource, and the historical period. To date, South-North economic and ecological interdependence has supported massive purchases of Southern resources from unsustainable sources and at prices that ignore environmental and social costs. This must change. A complete break is not a viable political or economic solution. Instead, careful manipulation of shadow ecologies is essential for sustainable resource management. Northern ODA, loans, technology transfers, and corporate investment must focus on alleviating environmental problems. Even more essential, corporations must eventually limit resource purchases to sustainable sources, consumer prices must rise high enough to slash wasteful consumption, and sufficient revenue must be returned to the South

⁴²Edward B. Barbier et. al., "The Economic Linkages Between The International Trade in Tropical Timber and The Sustainable Management of Tropical Forests," Final Report. ITTO Activity PCM (XI)/4, 19 March 1993, p.iv and p.v.

to support sustainable management. Having outlined the broad theoretical debate over the environmental implications of bilateral South-North interaction, I now turn to look specifically at Japan's shadow ecology.

Chapter Two

JAPAN'S SHADOW ECOLOGY

To provide a foundation for understanding the impact of Japan's shadow ecology on timber management in Southeast Asia, I outline major features and criticisms of Japanese government economic assistance, corporate practices, and trade. Since shadow ecologies can be moulded by policy, I highlight recent moves by the government and trading companies to integrate environmental concerns. I argue that the 1993 Environment Law, the new environmental guidelines at the aid agencies, and the 'environmental aid' program -- while contributing to incremental increases in funding, research, and technical assistance for environmental projects -- have conspicuous problems. The Environment Law and ODA guidelines are vague, the procedures for environmental reviews are unclear and convoluted, and there are no enforcement mechanisms or penalties. Environmental aid is partially a reclassification of traditional aid projects, such as water and sewage systems, and does not increase environmental funding as much as it appears at first glance. Moreover, this aid is primarily in the form of loans. Bureaucratic turf battles have also undermined the effectiveness of environmental aid. The Ministry of International Trade and Industry (MITI) has partially hijacked this aid program to justify and support corporate environmental technology exports. Meanwhile, the Environment Agency has minimal input into the management and distribution of

this aid while the Forestry Agency has shown little interest. In this setting, only a small amount of environmental aid supports forest conservation, reforestation, and improving tropical logging techniques.

While government policies to improve the environmental management of overseas projects have clear defects, and though there is a tendency to exaggerate accomplishments, the discrepancy between public bluster and policy substance is even greater in the business world. Intense criticism of overseas environmental practices ignited a public relations counter-attack by Japanese corporations in the 1990s. This has translated into a few showcase projects and a flood of grandiose claims of a new environmental awareness. Yet there is a wide gap between these claims and concrete procedures, mechanisms, and flow of money.

More perturbingly, government and corporate efforts to improve overseas environmental policies focus on peripheral effects of Japan's shadow ecology. There are few genuine efforts to tackle the key issues of 'wasteful' consumption, low purchase and consumer prices, or import barriers that deplete Southern state revenue essential for sustainable management. Although there are scattered statements that trade has significant environmental consequences, there are no comprehensive policies, or even consistent positions. These public statements appear designed to appease world and domestic critics of overseas environmental practices. In private, most Japanese government and business leaders downplay the impact of trade, invariably diverting the conversation to the efforts to

improve ODA or the showcase projects of the major trading companies.

This chapter begins with essential background on Japanese aid and loans. It outlines basic problems with ODA, particularly administrative barriers to integrating environmental concerns. I then evaluate recent efforts to improve ODA and loans, including the environmental aid program, environmental guidelines and assessments, and the new Environment Law. I examine the roles of MITI, the Foreign Ministry, the Finance Ministry, the Environment Agency, the Forestry Agency and the ODA implementing agencies. The second half provides background on corporate Japan and evaluates post-1990 efforts to develop environmental guidelines.

ENVIRONMENTAL IMPACT OF JAPANESE ODA AND GOVERNMENT LOANS

Japan's aid program began in the 1950s as reparation payments to Southeast Asia. During the 1960s, it was designed to promote Japanese exports; in the 1970s, particularly after the 1973 oil shock, aid became part of efforts to secure natural resources; in the 1980s, in addition to its economic role, aid emerged more as a tool of foreign policy, as part of 'comprehensive security.'¹ Today, in terms of quantity, Japan is an aid superpower,

¹Robert M. Orr, Jr. and Bruce M. Koppel, "A Donor of Consequence: Japan as a Foreign Aid Power," pp.2-3, in Bruce Koppel and Robert M. Orr Jr., eds., Japan's Foreign Aid: Power and Policy in a New Era (Boulder: Westview Press, 1993). On changes to Japanese aid in the late 1980s, see "Beware the helping hand," The Economist, 15 July 1989, pp.12-14. For a succinct summary of the evolution of Japanese aid, see William L. Brooks and Robert M. Orr, Jr., "Japan's Foreign Economic Assistance," Asian Survey 25, no. 3 (March 1985), pp.322-340.

particularly in Asia. Japanese ODA in 1993 was US\$11.26 billion, the largest in the world;² 65 percent of bilateral aid went to Asia, and 35 percent to the ASEAN countries.³ Japan is the most important bilateral aid donor for the Philippines, Indonesia, and Malaysia.⁴ In 1993, the government announced a five year ODA target of US\$70-75 billion, 50 percent higher than the previous five years.⁵

The administration of Japanese ODA is confusing. There are few clear lines of responsibility. Four main ministries have jurisdiction: MITI, the Ministry of Foreign Affairs, the Ministry of Finance, and the Economic Planning Agency (EPA). As well, more than a dozen have limited input. The two main implementing organizations are the Overseas Economic Cooperation Fund (OECF), formed in 1961 to provide concessional loans, and the Japanese

²"Japan at top of world donor league," The Daily Yomiuri, 24 June 1994, p.17.

³For a discussion of Japanese aid in ASEAN, see Alan Rix, "Managing Japan's Aid: ASEAN," in Orr and Koppel, eds., Japan's Foreign Aid, pp.19-40; and Robert Orr Jr., "The Rising Sun: Japan's Foreign Aid to ASEAN, the Pacific Basin and the Republic of Korea," Journal of International Affairs 41 (1987/88), pp.39-62.

⁴For recent articles on Japanese ODA in the Philippines, see Akira Takahashi, "From Reparations to Katagawari: Japan's ODA to the Philippines," in Orr and Koppel, eds., Japan's Foreign Aid, pp.63-90; and Filologo Pante Jr. and Romeo A. Reyes, "Japanese and U.S. Aid to the Philippines: A Recipient-Country Perspective," in Shafiqul Islam, ed., Yen For Development: Japanese Foreign Aid and the Politics of Burden-Sharing (New York: Council on Foreign Relations Press, 1991), pp.121-36. For Indonesia, see Jeff Kingston, "Bolstering the New Order: Japan's ODA Relationship with Indonesia," in Orr and Koppel, eds., Japan's Foreign Aid, pp.41-62.

⁵These statistics are from the Japanese Ministry of Foreign Affairs, Japan's ODA 1993 (Tokyo: Association For Promotion of International Cooperation, 1993), passim.

International Cooperation Agency (JICA), which started in 1962 as the Overseas Technical Cooperation Agency to administer grants and technical assistance.⁶ The OECF is officially attached to the EPA, although it is strongly influenced by the Finance Ministry. In FY1992 OECF loans comprised around half of total Japanese ODA, (around 10 percent of world ODA); approximately 51.5 percent of this sum went to Southeast Asian countries.⁷ Annual OECF development financing is equivalent to "the lending of the Asian Development Bank, the Inter-American Development Bank, and the African Development Bank combined."⁸ These loans have relatively high interest rates and tend to fund large infrastructure projects.⁹ JICA is controlled mainly by the Ministry of Foreign Affairs. However, MITI, or any ministry channelling its aid funds through JICA, including the Ministry of Agriculture, Fisheries, and Forestry, has influence over JICA projects.¹⁰

⁶For a description of JICA, see Robert M. Orr Jr., The Emergence of Japan's Foreign Aid Power (New York: Columbia University Press, 1990), pp.47-50, for the OECF, pp.45-47.

⁷OECF, OECF Annual Report 1993 (Tokyo, OECF, 1993), p.3 and p.37. From 1961 to the end of March 1993, Indonesia, Thailand, the Philippines, and Malaysia absorbed 40.9 percent of OECF loans. Ibid., p.37.

⁸Richard Forrest and Yuta Harago, Japan's Official Development Assistance (ODA) and Tropical Forests (Gland, Switzerland: WWF International, 1990), p.8.

⁹Although officially in FY1990 31.5 percent of bilateral aid funded infrastructure projects, Hiroshi Kanda claims it is actually around half. Hiroshi Kanda, "A Big Lie: Japan's ODA and Environmental Policy," AMPO Japan-Asia Quarterly Review 23, no. 3 (1992), p.42.

¹⁰For background on JICA activities, see JICA, For The Future Of The Earth (Tokyo: JICA, 1992).

The Export-Import (EXIM) Bank of Japan provides project loans, and export, import, and investment credits to foreign governments and corporations and to Japanese businesses and trading companies that do not qualify for ODA loans.¹¹ It is officially under the control of the Finance Ministry, although MITI has significant input. In FY1992 the Bank made US\$16.5 billion worth of commitments; at the end of the fiscal year, outstanding loans reached US\$71.4 billion, the highest in the history of the Bank.¹² The EXIM Bank is designed to "facilitate Japan's economic interchange with foreign countries through the provision of a wide range of financial services to supplement and encourage financing by commercial banks and other financial institutions in Japan." A central priority is the "development and import into Japan of natural resources."¹³

Like other donors, Japan's lending policies and decision making process have general problems that contribute to difficulties in evaluating and incorporating environmental

¹¹The distinction between OECF aid loans and EXIM loans is in many ways purely definitional -- a small change in OECD Development Assistance Committee (DAC) guidelines could easily eliminate a large percentage of OECF 'aid' and swell EXIM 'loans'. For this reason EXIM loans -- though not officially part of ODA -- can logically be considered alongside a discussion of government overseas economic assistance. For a description of DAC guidelines for economic assistance qualifying as ODA, see Orr and Koppel, "A Donor of Consequence," p.16, footnote 3.

¹²EXIM Bank of Japan, The Export-Import Bank of Japan: Annual Report 1993 (Tokyo: EXIM Bank, 1993), p.8.

¹³EXIM Bank of Japan, Guide To The Export-Import Bank of Japan (Tokyo: EXIM Bank of Japan, February 1994), p.1.

concerns.¹⁴ The greatest obstacles to improving ODA are administrative fragmentation and an emphasis on increasing quantity over clear goals and policies.¹⁵ Battles between MITI (fighting for business interests), Finance (stressing fiscal responsibility), and Foreign Affairs (promoting foreign policy objectives) create administrative paralysis, dilute policies, and foster ad hoc solutions.¹⁶ There is also little coordination between JICA and the OECF.¹⁷ One OECF official claimed: "We get better cooperation with USAID [U.S. Agency for International Development] than we do with JICA."¹⁸ Efforts to tackle environmental concerns are further weakened by already over-worked staff responsible for increasingly large aid budgets.¹⁹ There are also few staff with environmental

¹⁴It should be emphasized that "few of the problems the Japanese development program faces are unique." Alan S. Miller, and Curtis Moore, Japan And The Global Environment (Maryland: Center for Global Change, University of Maryland, 1991), p.20.

¹⁵During interviews in 1994, environment-oriented aid bureaucrats at the OECF and JICA expressed frustration with the omnipresent administrative obstacles. For a critique of ODA administration, see chapter three in Alan Rix, Japan's Foreign Aid Challenge: Policy reform and aid leadership (London: Routledge, 1993); for aid policy, see chapter four.

¹⁶The weakest central actor - the EPA - generally remains neutral or sides with the Finance Ministry. Orr and Koppel, "A Donor of Consequence," p.6. The role of these actors is discussed by Toru Yanagihara and Anne Emig, "An Overview of Japan's Foreign Aid," in Islam, ed., Yen For Development, pp.53-58.

¹⁷Interview, Forestry consultant, Japan Overseas Forestry Consultants Association (JOFCA) and USAID, 3 February 1994.

¹⁸Quoted in Orr, The Emergence of Japan's Foreign Aid Power, p.50.

¹⁹"In 1990 each ODA administrator in Japan was responsible for an average of US\$6.35 million in funds -- far more than aid staff in any other nation." Richard Forrest, "Japanese Aid and the

expertise or overseas field experience. Senior JICA officials rotate frequently and often have little experience in Southern countries. As well, JICA staff tend to be generalists; experts are seconded from ministries or agencies and usually stay for a short period.²⁰ A mere 5 percent of JICA staff live overseas, compared to about 50 percent of USAID staff.²¹

Besides direct project funding, the OECF and JICA provide loans to Japanese companies to promote direct investment in the South, usually at very low interest rates.²² This is generally part of combined packages of overseas economic assistance and private capital. These deals reduce environmental monitoring and accountability. Richard Forrest argues that "even if the ODA portion is covered by environmental or other restrictions, the auxiliary funding and secondary projects that often follow are outside the scope of environmental assessments, and have no policies to guide or regulate them."²³ There are other serious problems with Japanese ODA. Concessional loans comprise almost

Environment," Ecologist 21 (Jan/Feb 1991), p.29.

²⁰Interview, Senior official, JICA, Tokyo, 12 April 1994.

²¹Forrest, "Japanese Aid and the Environment," p.29.

²²JICA provides loans when projects do not qualify for OECF or EXIM Bank loans. For details, see JICA, Support for Japanese Enterprises in Developing Countries: Long-Term, Low-interest Financing System (Tokyo, JICA, undated); and JICA, Development Loan and Investment Program (Tokyo, JICA, 1991).

²³Forrest, "Japanese Aid and the Environment," p.27. For more detail, see Richard Forrest, Japanese Economic Assistance and The Environment: The Need for Reform (Washington: National Wildlife Federation, 1989).

half of all ODA, more than any other country.²⁴ With the rapid appreciation of the yen over the last 20 years, these loans have often been costly, and have contributed to pressures on Southern governments, especially in Asia, to exploit natural resources to service their debts. In addition to the stress on lending, critics have pointed to poor pre-and-post-project evaluations,²⁵ corruption and incompetence, inappropriate technology transfers,²⁶ the drawbacks of a 'request-based' system,²⁷ aid tied to corporate interests,²⁸ an emphasis on large-scale development schemes over community based projects, and a lack of cooperation with NGOs.²⁹ Analysts have been especially critical of the impact of aid on tropical forests.

²⁴Orr and Koppel, "A Donor of Consequence," p.3.

²⁵Forrest, "Japanese Aid and the Environment," pp.29-30.

²⁶JICA technology transfers are often far too advanced. Two factors make this difficult to overcome: Japanese technicians are more comfortable with advanced equipment; and developing countries often *insist* on the most advanced equipment. Interview, Office of Overseas Environmental Cooperation, Environment Agency, Tokyo, 5 April 1994.

²⁷Orr and Koppel argue that 'request based' aid has "left Japanese firms open to charges of manipulating requests more conducive to corporate rather than recipient interests." Orr and Koppel, "A Donor of Consequence," p.9. As well, it "falls prey to the desires of ruling elites in developing countries who request large-scale, ultramodern 'showcase' projects often irrelevant to the greatest needs of the people." Forrest and Harago, Japan's Official Development Assistance, p.12.

²⁸See Forrest, "Japanese Aid and the Environment," pp.26-27.

²⁹For a general critique, see Mera Koichi, "Problems in the Aid Program," Japan Echo 16, no. 1 (1989), pp.13-18, an abridged translation of "ODA wa 'senshinkoku kurabu no sankahi' de wa nai," Economic Today (Summer 1988), pp.88-97.

In recent years, as attitudes change and world and domestic scrutiny intensifies, the Japanese government has tried to tackle some of the problems with its ODA. Although serious weaknesses remain, incremental changes are occurring. According to Alan Rix, although, "reform and innovation in policy have not moved as fast as changes to public presentation of policy" there are micro-level adjustments "in the management and operation of aid flows."³⁰ In addition, there has been some movement toward greater transparency, more involvement of NGOs,³¹ larger grants, more attention to basic human needs, and less overtly tied aid.³² JICA now accepts the need for 'institution building', 'participatory development', and more careful allocation of grants to avoid past problems of building facilities that remain empty, or sending equipment that is never used.³³ The Japanese government has also developed an environmental aid program, and environmental guidelines and departments at JICA, the OECF, and the EXIM Bank.

³⁰Rix, Japan's Foreign Aid, p.190 and p.8. He examines these changes throughout his book.

³¹While funding for NGOs has increased slightly, compared to the overall aid budget, it is still "minuscule". David Potter, "Assessing Japan's Environmental Aid Policy," Pacific Affairs 67 (Summer 1994), p.203.

³²Although officially much of Japanese aid has been untied, informal ties to business are still widespread, especially to yen loans. Orr and Koppel, "A Donor of Consequence," p.10; and Koichi, "Problems in the Aid Program," p.14.

³³Interview, Senior JICA official, Tokyo, 12 April 1994.

ENVIRONMENTAL AID

Among ODA donors, there is no consistent definition of environmental assistance. The Japanese Foreign Ministry defines it as "assistance conducive to the resolution of environmental problems" including "the improvement of the living environment, forestry conservation and afforestation, disaster reduction, pollution control, the conservation of the natural environment (including the conservation of biological diversity) and the protection of the ozone layer."³⁴ In 1989, Japan announced an environmental aid target of 300 billion yen over the next three years. To encourage requests for this aid, teams from JICA, the OECF, Foreign Affairs, MITI, the Forestry Agency, and the Environment Agency went on environmental missions, including one to Southeast Asia.³⁵ This environmental aid target was exceeded by more than 100 billion yen. For FY1992, 16.9 percent of total ODA was defined as environmental aid.³⁶ Not all of this total represents 'new' funds for environmental protection. Environmental aid has been partially derived by reclassifying "infrastructure development" or "irrigation and flood control" to 'environmental

³⁴Japanese Ministry of Foreign Affairs, Japan's ODA 1993, p.175. Japan's environmental aid policy -- based on declarations at the 1989 Paris Summit and the 1991 London Summit -- is outlined in Ibid., pp.176-191.

³⁵Forrest and Harago, Japan's Official Development Assistance, p.13.

³⁶Japanese Ministry of Foreign Affairs, Japan's ODA 1993, Table II-22, p.180.

projects'.³⁷ So far around half of environmental aid has funded improvements to urban water and sewage systems.³⁸ As a result, about 70 percent of this aid has been in the form of loans.³⁹

Environmental concerns gained momentum in Japan during 1992. An Economic Council advisory subcommittee to the Prime Minister called for better ODA guidelines to promote environmental conservation.⁴⁰ In June, Cabinet approved an ODA Charter; the first Principle declares that "environmental conservation and development should be pursued in tandem."⁴¹ At the UN Conference on Environment and Development, Japan promised 900 to 1000 billion yen of environmental aid over the next five years, the largest by any country.⁴² In early 1993, the Japanese government announced it would expand environmental aid to the ASEAN countries.⁴³ In November 1993, the Japanese Diet passed the New Basic Law on the

³⁷Potter, "Assessing Japan's," p.206. Also, Interview, Friends of the Earth, Tokyo, 25 May 1994.

³⁸Louise do Rosario, "Green at the edges," FEER, 12 March 1992, p.39.

³⁹Japanese Ministry of Foreign Affairs, Japan's ODA 1993, p.178. Considering the links between Southern debt and environmental problems, it is debatable whether any loan should be labelled 'environmental aid'.

⁴⁰"ODA should be used to guard the environment, panel says," The Japan Times, 27 May 1992, p.7.

⁴¹OECD, OECD Annual Report 1993, p.18.

⁴²Shigeaki Fujisaki, "Environmental Issues in Developing Countries and the Role of ODA," Japan Review of International Affairs 7, no. 1 (Winter 1993), p.75.

⁴³Asahi Shimbun, 17 January 1993, in Potter, "Assessing Japan's," p.201.

Environment. The law explicitly addresses environmental links to ODA. Section one, article 35, reads:

The State, in implementing international cooperation, shall make efforts to consider global environmental conservation etc. in the areas where its international cooperation is implemented.⁴⁴

BATTLES OVER ENVIRONMENTAL AID

Typical of Japan's ODA administration, as funding and interest have risen, "'green' aid has become the subject of intense competition among various ministries involved in foreign assistance."⁴⁵ In a struggle over environmental turf, Foreign Affairs and MITI have become strong supporters of environmental aid. The Foreign Ministry allocated 4 billion yen in FY1992 to finance international organizations involved in environmental programs. As noted earlier, however, the bulk of the Ministry's influence is through JICA.

MITI has aggressively staked out an environmental mandate. MITI's Environmental Policy Division emphasizes technological solutions and corporate technology exports to tackle global warming, and promote energy conservation and alternative energy

⁴⁴Government of Japan, The Basic Environment Law, Law No. 91, 1993, effective 19 November 1993. For an overview of the new law, see Hidefumi Imura, "Japan's Environmental Balancing Act: Accommodating Sustained Development," Asian Survey 34, no. 4 (April 1994), pp.355-368.

⁴⁵Louise do Rosario, "Green at the edges," FEER, 12 March 1992, p.39.

sources.⁴⁶ 'New Earth 21', a MITI backed proposal to the international community, calls for the development and "world-wide diffusion of environmentally sound technologies."⁴⁷ Specific MITI projects all aim at a technological fix for global environmental problems. The International Centre For Environmental Technology Transfer (ICETT) -- a non-profit organization under MITI jurisdiction and with local government, academic and industry participation -- was established in 1991 to transfer Japanese pollution technology to developing countries.⁴⁸ In the same year, MITI announced its Green Aid Plan. In FY1992, Green Aid provided around 2.7 billion yen to support technological efforts to reduce water and air pollution, and improve waste treatment, recycling, and energy conservation in the South.⁴⁹ The Research Institute of Innovative Technology for the Earth (RITE) -- a foundation administered by MITI -- supports a joint industry, academic, and government research facility completed in 1993 to study environmental technologies, particularly for energy conservation and global warming.⁵⁰ In 1993, MITI and the Agency of Industrial

⁴⁶Interview, MITI official, Environmental Policy Division, Tokyo, 27 April 1994.

⁴⁷MITI, "The New Earth 21," internal document, supplied by a MITI official, April 1994.

⁴⁸ICETT (Yokkaichi, Japan: International Centre For Environmental Technology Transfer, June 1993).

⁴⁹MITI, "Green Aid Plan," internal document, supplied by a MITI official, April 1994.

⁵⁰For background, see RITE (Tokyo: Research Institute of Innovative Technology for the Earth, March 1992).

Science and Technology amalgamated three existing projects, forming the New Sunshine Program "to develop innovative technology to create sustainable growth while solving energy and environmental issues."⁵¹

The Environment Agency -- historically a weak player in ongoing bureaucratic struggles, especially over ODA -- has had little input into overseas issues. There are some signs this may be changing.⁵² Despite having no official mandate to impose overseas environmental guidelines or control environmental aid, the Environment Agency established a Global Environment division in 1990. This division tries to encourage overseas Japanese companies to consider environmental factors; it is also directly involved in some JICA projects.⁵³ In addition, as part of global efforts to reevaluate economic accounting, Environment Agency researchers are trying to measure in monetary terms the effects of "economic activities on foreign countries and the global environment, and...the impacts of global environmental change on domestic

⁵¹MITI, and the Agency of Industrial Science and Technology. New Sunshine Program (Tokyo: New Sunshine Program Promotion Headquarters, 1993), p.4.

⁵²These signs must be examined warily since, for favourable publicity, it is sometimes useful for the more powerful ministries to make it look like the Environment Agency is involved in decisions, perhaps even at the helm. Interview, Friends of the Earth, Tokyo, 25 May 1994.

⁵³Interview, Office of Overseas Environmental Cooperation, Environment Agency, Tokyo, 5 April 1994.

economic activity."⁵⁴ Another possible sign of growing influence is the 36 percent increase in the Environment Agency's aid budget in FY1991,⁵⁵ though it is still one of the smallest. Perhaps more significantly, Environment Agency officials claim that, despite being quite critical of ODA environmental reviews, informal influence is beginning to develop. There is also a possibility the New Basic Environment Law will reinforce, perhaps even promote, Environment Agency input.⁵⁶ Not all trends, however, solidify the growing influence of the Environment Agency. As the environmental spark ignited by the 1992 UNCED Conference fades, momentum has been lost in the Japanese Diet to make the Environment Agency a full ministry. More importantly, funding and personnel are still too limited for consistent influence.⁵⁷

The Forestry Agency is quite conservative and has been less eager to dive into the fray for environmental aid.⁵⁸ In 1990 the

⁵⁴Tsuneyuki Morita, "Environmental and Natural Resource Accounting in Japan," CIDIE Workshop on Environmental and Natural Resource Accounting, UNEP Headquarters, Nairobi, 1992, p.2. The Economic Planning Agency and the Ministry of Agriculture, Forestry and Fisheries are also studying resource accounting. Ibid., p.1.

⁵⁵Rix, Japan's Foreign Aid, p.125.

⁵⁶Interview with one of the drafters of the New Basic Environment Law, Environment Agency, Global Environment Department, Tokyo, 9 June 1994. Also see Kunitoshi Sakurai, "Japan's New Government and Official Development Assistance," INTEP Newsletter, no. 3 (October, 1993), p.1

⁵⁷Based on several interviews, Global Environment Department, Environment Agency, Tokyo, 9 June 1994.

⁵⁸According to one source, it is a defensive, inflexible Agency linked closely to the major trading companies. Interview, Friends of the Earth, Tokyo, 25 May 1994.

Agency published a position paper on tropical forests calling for large-scale tree plantations, more cooperation with NGOs, and timber purchases from sustainable sources.⁵⁹ Strangely, considering these kinds of reports tend to be full of fluff, it does not emphasize protecting biodiversity and primary forests or seriously consider the implications of tropical timber consumption. Instead, it advocates exporting Japanese forestry expertise, stimulating consumption, and expanding trade in timber.⁶⁰

THE OECF, THE EXIM BANK, JICA, AND THE ENVIRONMENT

The OECF, JICA, and the EXIM Bank have all developed environmental departments and guidelines since the late 1980s. The OECF now has "an environment advisor, an Environment Committee and a senior manager in charge of environmental problems."⁶¹ In 1989, the OECF established environmental guidelines to encourage environmentally sound Southern loan requests, and provide the OECF with criteria to evaluate applications.⁶² Generally, before an official request is made, a Japanese fact finding mission is sent to evaluate the feasibility of Southern proposals. At this stage,

⁵⁹While these are all positive proposals (although plantations must be managed with great care), as we will see in later chapters, the Forestry Agency has not actively pursued these goals.

⁶⁰My summary is based on Forrest and Harago, Japan's Official Development Assistance, pp.10-11.

⁶¹Rix, Japan's Foreign Aid, p.125.

⁶²Interview, OECF Environment and Social Development Division, Tokyo, 11 April 1994. Also see OECF, OECF Environmental Guidelines (Tokyo: OECF, 1989). For a review of OECF environmental projects, see OECF, OECF and The Environment (Tokyo: OECF, 1993).

based on a check list, OECF officials apparently encourage prospective borrowers to consider environmental factors. According to an OECF official, as a result of this process, actual loan applications are rarely rejected for environmental reasons.⁶³

OECF environmental guidelines could certainly be strengthened. Forrest argues that these guidelines "seem to be no more than a vague menu of items which should be considered, rather than conditions required to ensure environmental damage will not result before OECF provides funding."⁶⁴ Rix notes that the "environment is just one aspect of OECF appraisal of projects, and no strict impact statement is required."⁶⁵ Indicative of the weak environmental review process is one of the six main items for assessing applications, the lame question: "Is there sufficient environmental consideration in the project?"⁶⁶ Also indicative is the lack of any revision to the original guidelines, despite the mollifying, and now somewhat embarrassing note in the preface of the 1989 OECF Environmental Guidelines: "This is a first version,

⁶³Interview, OECF official, Tokyo, 11 April 1994. There are cases of the OECF suspending a project after severe criticism by environmentalists and NGOs, although these suspensions were not based on violations of OECF environmental guidelines. Examples include the Sardar Sardovar dam project in India (1990), the Mindanao geo-thermal power project in the Philippines (1991), and the US\$80 million loan for the Calaca II power plant in Luzon (1992). Potter, "Assessing Japan's," p.202.

⁶⁴Forrest and Harago, Japan's Official Development Assistance, p.8.

⁶⁵Rix, Japan's Foreign Aid, pp.125-26. Evaluated from Operational Guidance on OECF Loans, March, 1991, Tokyo, p.19.

⁶⁶Quoted in Rix, Japan's Foreign Aid, p.126.

and we plan to make such improvements as prove necessary, with a view to making them more comprehensive and effective."⁶⁷

The EXIM Bank first developed environmental guidelines in 1989; these were updated and made more stringent in late 1991. Little is known about these guidelines. They are confidential; even the Ministry of Finance has not seen a copy.⁶⁸ In theory, the Bank as a whole reviews environmental guidelines. In each loan department there is a senior official responsible for assessing environmental aspects. However, for many applications -- such as importing aircraft technology -- there is no environmental assessment since the proposal is not deemed to have any environmental implications. Though rare, if an application has obvious environmental problems it is rejected.⁶⁹ When an application has unclear environmental implications, it is referred to the Environmental Affairs Section.

From April 1993 to April 1994, the Environmental Affairs Section reviewed about a dozen applications, one relating to

⁶⁷As of April 1994, no revisions had been published.

⁶⁸Interview, Senior official, Environment Section, EXIM Bank, Tokyo, 11 April 1994. The Ministry of Finance has shown little interest in environmental issues. According to one source, officials are "arrogant and authoritarian" and unlike the other ministries, there is not even a superficial attempt to bother with public relations. Interview, Friends of the Earth, Tokyo, 25 May 1994.

⁶⁹Revealingly, I was unable to obtain statistics on the number of applications rejected at this stage. Though unverifiable, an EXIM official claimed that loan applications are almost never turned down since, if Bank officials consider the project environmentally unsound, the loan is quietly, informally rejected; the applicant then formally withdraws the request to save face.

logging in Sarawak. None of these was rejected. Instead, conditions were set. According to a Bank official in the Environment Section, if these conditions are violated, then the Bank can force early repayment of the loan. In addition, there is an informal understanding that it would be difficult to receive future loans.⁷⁰ Besides these apparent environmental checks, the Bank claims that it now lends more money to improve environmental management. But without access to confidential Bank records, it is impossible to assess comprehensively the environmental guidelines, the review process, or the environmental loans. Secret rules, weak penalties, vague lines of accountability, and few, if any, examples of applications rejected for environmental reasons all suggest the Bank's environmental record has serious shortcomings. An intuitive, precursory assessment is that the Bank is more concerned with avoiding environmental scandals and public embarrassment than with genuine reviews of loan applications.⁷¹

While OECF and EXIM Bank environmental guidelines appear largely cosmetic, more concrete, though incremental changes have occurred at JICA. In 1989, JICA established an Environment Section of the Planning Department. Based on OECD Development Assistance Committee recommendations, in 1990 JICA introduced environmental

⁷⁰Interview, Senior official, Environment Section, EXIM Bank, Tokyo, 11 April 1994.

⁷¹One indication is the rationale for reviewing the logging project in Sarawak. A central concern was the publicity and scrutiny given to logging in Sarawak, not specific problems with the loan proposal. Interview, Senior official, Environment Section, EXIM Bank, Tokyo, 11 April 1994.

guidelines for development initiatives including dams, agricultural estates, and forestry projects. Since then JICA has tried to incorporate more environmental factors into grants and technical assistance; conserving primary tropical forests and rehabilitating secondary forests have apparently been a major focus of these efforts.⁷² In FY1992, 17.4 billion yen, or 13.5 percent of total JICA expenditures, went to the environmental sector, up from 8.1 billion yen in 1988. These funds trained 722 people in Japan, sent 129 experts overseas, and supported 67 development studies and 47 technical cooperation projects. In the same year, environmental specialists reviewed 108 projects.⁷³

Despite more support for environmental projects, and plausible attempts to incorporate environmental factors into decision making, there are serious problems with implementing environmental guidelines. The Environment Section, along with a regional division of the Planning Department, determine whether a project requires an environmental Impact Assessment (EIA). If necessary, one of JICA's sector-based departments -- such as forestry -- then identifies the scope of the assessment. The actual EIA is handled by a team of private consultants and JICA officials who often have little experience with environmental or tropical forestry management. The environmental guidelines are "non-binding reference materials," and are optional at all stages of the

⁷²Interview, Senior JICA official, Tokyo, 12 April 1994.

⁷³Hiroshi Enomoto, JICA, Division of the Environment, "Environmental Cooperation and The Japan International Cooperation Agency," INTEP Newsletter, no. 4 (February 1994), pp.6-7.

process. Details on specific projects are confidential and there is no post-project evaluation of environmental changes. Furthermore, environmental reviews do not consider alternatives to the proposed project and give little consideration to indirect social and environmental implications.⁷⁴ Specific problems with JICA's environmental guidelines and procedures are exacerbated by the fragmented ODA administration. The OECF and JICA have not consolidated environmental guidelines and do not coordinate environmental reviews. As a result, standards may change as a project progresses.⁷⁵ This problem is unlikely to be resolved soon. Environmental guidelines and aid plans vary across ministries, and despite the new Environmental Law, there is little chance of developing a unified environmental aid policy.

Problems with environmental planning at JICA and superficial changes at the OECF and EXIM Bank lead Hiroshi Kanda to pan environmental aid. He argues "there is no remarkable difference between 'Environment ODA' and 'regular ODA.' They both tend to support Japanese industry and Japanese economic aims."⁷⁶ This seems too harsh. It would be naive to assume the new rhetoric equals improved practices; but it is equally facile to assume these new policies have no practical effects. Environmental aid, policy changes at MITI and Foreign Affairs, and decisions by JICA, the

⁷⁴A summary of Forrest and Harago, Japan's Official Development Assistance, pp.6-7.

⁷⁵Potter, "Assessing Japan's," p.208.

⁷⁶Kanda, "A Big Lie," p.45.

OECD, and the EXIM Bank to create environmental committees and sections, and to revise guidelines, indicate, at a minimum, a recognition of a need to be more sensitive to environmental concerns, at least in public statements. Evaluating the extent of concrete changes -- rather than paper ones -- is far from easy. As will be seen in later chapters, there have been marginal improvements to Japanese forestry aid and loan projects in Southeast Asia, although these changes are certainly far behind the policy rhetoric. The gap between glossy policy declarations and substantive procedural changes is even greater for Japanese corporations.

ENVIRONMENTAL IMPACT OF JAPANESE CORPORATIONS

Together Japanese government and corporate financial flows to the South are the largest in the world. In 1987, Japanese private investment, commercial loans, and official aid amounted to US\$22.5 billion, a quarter of all Northern financing in the South.⁷⁷ The distinction between the environmental impact of government and private economic activity is rather artificial, especially in Japan where there are close personal links between bureaucratic, political and business elites. Like other Northern donors, Japanese aid is tied closely to corporate investment and trade.⁷⁸ One structural reason is the custom of senior aid officials

⁷⁷Forrest, "Japanese Aid and the Environment," p.24.

⁷⁸This is a key theme of the articles in Koppel and Orr, eds. Japan's Foreign Aid.

retiring "to lead aid consulting associations and companies working to gain ODA contracts."⁷⁹ In the cases of the Philippines, Indonesia and Malaysia, ODA has "lowered the cost" of Japanese corporate investment "by providing essential infrastructure for host economies."⁸⁰ Strategically allocated ODA has contributed to Southeast Asia being a crucial zone of investment, led by giant trading companies.

The label 'trading company' (*sogo shosha*) is somewhat misleading. For the 'big six' -- Itochu, Mitsui, Marubeni, Sumitomo, Mitsubishi, and Nissho Iwai -- trade is only a portion of their activities.⁸¹ These are complex conglomerates and all meet "the criteria set by international specialist literature for multinational or transnational concerns."⁸² In many cases, a trading company is the 'core' or the 'command centre' of a powerful industrial group. These "spiders at the centre of Japan's global economic web...are intermediaries for about half the country's

⁷⁹Forrest, "Japanese Aid and the Environment," p.26.

⁸⁰Wendy Dobson, Japan in East Asia: Trading and Investment Strategies (Singapore: Institute of Southeast Asian Studies, 1993), p.67.

⁸¹In terms of sales, these were the six largest companies in Asia in 1993. "The Asiaweek 1000," Asiaweek, 23 November 1994, p.50. For recent background on these corporations, see Sam Jameson, "Trading Companies Power Tokyo's Economic Expansion," Daily Yomiuri (Los Angeles Times World Report), 11 June 1994, p.8A.

⁸²Max Eli, translation by Michael Capone, Tristram Carrington-Windo, and Charles Foot, Japan Inc.: Global strategies of Japanese trading corporations (London: McGraw-Hill Book Company, 1990), p.103.

exports and two-thirds of its imports."⁸³ These companies have

impressive communication and information systems at their disposal. They have sales and procurement networks in virtually every country in the world and they organize third-country trade. [They] also play an important role in exploiting raw material resources in other countries. They control large segments of national distribution, operate banks and lending institutions, develop new technologies and create new industrial sectors.⁸⁴

Trading companies perform vital functions. They purchase and distribute almost every imaginable good, provide information (in some cases 'better than the CIA'), act as 'quasi banks', invest in joint ventures, and transport and market raw materials.⁸⁵ For Japanese business empires, trading companies provide stable resource stocks, and sometimes take short-term losses to help absorb fluctuations in currency exchanges and resource supplies. This does not translate, however, into stable Southern prices since trading companies "themselves provoke speculative moves in international commodity markets, which they later smooth down in Japan."⁸⁶ According to L. B. Krause and S. Sekiguchi, trading companies "follow-the-leader." "If one company, thinking a product is in short supply, makes anticipatory purchases, the others will follow suit, causing an excess of quantity requirements, rapid escalation in prices, and market instability; ultimately, the

⁸³"Japanese trading companies: the web rips," The Economist, 8 August 1992, p.68.

⁸⁴Max, Japan Inc., p.103.

⁸⁵Ibid., pp.107-113.

⁸⁶Francois Nectoux, and Yoichi Kuroda, Timber From The South Seas: An Analysis of Japan's Tropical Environmental Impact (Gland, Switzerland: World Wildlife Fund International, 1990), p.64.

excess must be sold back into the market, causing a collapse in price."⁸⁷

Trading companies and their subsidiaries extract, transport, import, distribute, process, and market Southern natural resources. They provide money and technology to start projects, and a stable buyer to support rapid extraction. As part of a wider corporate strategy, these companies emphasize a steady flow of huge quantities at low profit margins. According to Francois Nectoux and Yoichi Kuroda, as a result, "rather than concentrating on long-term -- or even short-term -- returns of high value products, [trading companies] are often prepared to use the 'grab it and run' strategy."⁸⁸ Understandably, these economic powerhouses create deep environmental reverberations.

Besides a few showcase projects, multinational corporations around the world have shown little practical interest in supporting or funding environmental conservation.⁸⁹ Japanese companies are no exception, focusing instead on exporting environmental technology developed to tackle pervasive pollution in the early 1970s.⁹⁰ MITI

⁸⁷L. B. Krause and S. Sekiguchi, "Japan in the World Economy," in H. Patrick and H. Rosovsky, eds., Asia New Giant; How the Japanese Economy Works (Washington: The Brookings Institute, 1976), quoted in Nectoux and Kuroda, Timber From The South, p.64.

⁸⁸Nectoux and Kuroda, Timber, p.64.

⁸⁹Choucrist, "Multinational Corporations," p.212.

⁹⁰For a discussion of Japanese government policies and business efforts to tackle industrial pollution in the 1970s, see Peter Dauvergne, "Japanese Domestic Environmental Policy Making: An Examination of the Role of the Liberal Democratic Party." M.A. Research Essay, Ottawa, Carleton University, Department of Political Science, 1991.

predicts overseas environmental protection will become a lucrative business and vigorously backs these corporate efforts. While there is strong government support for environmental technology exports, there is little, if any, pressure on Japanese companies to monitor the environmental effects of general technology transfers.

MITI, Keidanren (Federation of Economic Organizations), and the most powerful companies have become increasingly worried about Japan's corporate image as environmentalists and NGOs depict Japanese companies as 'eco-outlaws.' To counter mounting criticism of corporate environmental practices, the Japanese government, Keidanren, and the trading companies have launched a major campaign to 'green' corporate Japan.

GREENING CORPORATE JAPAN

As environmental criticism mounted in the 1980s and early 1990s, Keidanren and key trading companies counter-attacked, creating new environmental sections, guidelines, conservation projects, and public relations brochures. In late 1990, Keidanren organized a '1% Club', and requested member firms and individuals to donate "one percent of their annual income to support socially beneficial activities."⁹¹ In 1991, Keidanren proclaimed a Global Environmental Charter. A year later, a Keidanren poll claimed that 70 percent of companies "had already used the charter to strengthen

⁹¹Yoichi Nakamura, "The Ecobusiness Logic," AMPO Japan-Asia Quarterly Review 23, no. 3 (1992), p.56. Also see Tomoya Inyaku, "A Step Forward? Debt-for-Nature Swaps," AMPO Japan-Asia Quarterly Review 23, no. 3 (1992), pp.48.

their ability to tackle environmental issues."⁹² However, even if this optimistic claim is accepted, the Charter has clear weaknesses, making its ability to 'strengthen' anything debatable. While it contains commendable principles, the wording is often vague and irresolute.⁹³ More importantly, there is no specific enforcement mechanism. According to a Keidanren official, the guidelines are designed to encourage companies to consider overseas environmental factors; while compliance is 'expected', it is not mandatory, and leeway is provided.⁹⁴ In 1994, Keidanren reiterated its environmental stance, calling on Japanese companies "to work to protect the global environment" as part of "corporate responsibility."⁹⁵ However, despite these lofty principles, without any means to monitor and enforce regulations, many Japanese observers see the Charter as little more than a public relations ploy.⁹⁶

⁹²Keidanren, Towards Preservation of the Global Environment, Tentative Translation (Tokyo: Keidanren, 27 May 1992), p.1. MITI has also encouraged businesses to "formulate voluntary plans on the environment." MITI, "Voluntary Plans for the Environment," 12 October 1992, internal document, supplied by a MITI official, April 1994, p.2.

⁹³See Keidanren, Keidanren Global Environment Charter (Tokyo: Keidanren, April 1991).

⁹⁴Interview, Global Environment Department, Keidanren, Tokyo, 7 April 1994.

⁹⁵Keidanren, "Keidanren Policy and Activities for 1994," Internal document. Tentative Translation (Tokyo: Keidanren, 4 January 1994), p.3.

⁹⁶Many Japanese academics, NGO representatives, and even government insiders are quite critical of the Charter. Interviews, Tokyo, April to July 1994. Besides developing the Charter in 1992, Keidanren also established the Nature Conservation Fund to finance

Since the early 1990s, Japan's six largest trading companies have established environmental sections. These are remarkably similar and cooperate closely, perhaps to increase communication and maximize resources, perhaps, more cynically, to minimize competition and avoid a costly race to be the most 'environmentally friendly'. Mitsubishi's Environmental Affairs Department is typical. According to a spokesman, it has three aims: to raise the environmental consciousness of employees; to contribute to environmental projects in developing countries; and to share Japanese knowledge and experience of environmental protection while being careful to sell appropriate technology.⁹⁷ All of the environmental departments have developed environmental guidelines, though like the Keidanren Charter there is far more flowery language than concrete procedures.⁹⁸ Besides these guidelines, the largest trading companies have modestly increased funding for environmental projects in the South and for research in Japanese universities. Some trading companies have also instituted environmental reviews. For example, at Itochu the Global Environment Department evaluates a proposal when there is concern

nature conservation projects, particularly in tropical rain forests. Though commendable, the amount distributed is still relatively small. In its first year, the Fund supplied 100 million yen to projects in Palau, Sulawesi, Tanzania, Ecuador and Vietnam. Keidanren, "Keidanren Nature Conservation Fund Makes First Pledge to Conservation Projects," internal document (Tokyo: Keidanren, undated, acquired by the author April 1994).

⁹⁷This Department was created in 1990. Interview, Mitsubishi Corporation, Environmental Affairs Department, Tokyo, 5 April 1994.

⁹⁸For example, see Marubeni, "Guidelines on Global Environmental Issues," internal document (Tokyo: Marubeni, 1991).

it may harm the environment. However, the process and criteria are vague and there is no reliable evidence that proposals are ever rejected on environmental grounds.⁹⁹ Starting in FY1994, Marubeni plans to conduct an annual review of the environmental impact of its business activities,¹⁰⁰ although like Itochu, the criteria and process are opaque.

A vital function of the new environment departments is to improve corporate images. According to corporate representatives, Japan's wealth, powerful public relations sections of Western MNCs, the tendency among the international community to avoid criticizing developing states, and a Japanese cultural proclivity to accept criticism have all contributed to an unbalanced, simplistic, even inaccurate picture of the environmental record of Japanese corporations.¹⁰¹ One example is a 1993 New York Times advertisement by the Rainforest Action Network that claims Mitsubishi is destroying tropical forests and calls for a boycott of their products.¹⁰² Through a worldwide publicity campaign, meetings with NGOs, distributing information packages, and

⁹⁹A spokesman was unable to provide a single example of a project rejected for environmental reasons. Interview, Department of Global Environment, Itochu Corporation, Tokyo, 12 April 1994. For details on Itochu's environmental guidelines and the environmental management and assessment system, see Itochu. "Global Environment Problem and Itochu Corporation," internal document (Tokyo: Department of Global Environment, 30 November 1993).

¹⁰⁰Marubeni, Marubeni Corporation: Annual Report 1993 (Tokyo: Marubeni, 1993), p.35.

¹⁰¹This point was most cogently made by an official at Keidanren, Tokyo, 7 April 1994.

¹⁰²New York Times, Monday, 10 May 1993.

responding to letters, the trading companies are trying to counteract what they consider unjustified and outrageous allegations.¹⁰³

Japanese companies have generally avoided investment or research in reforestation since primary forests have provided immediate and abundant high-quality tropical logs while reforestation is expensive, demands long-term commitments and planning, and profits are unpredictable. Nevertheless, the effort to improve Japan's corporate environmental image -- coupled with some government financial and technical support -- has produced a few small reforestation projects.¹⁰⁴ There is also some support for research in tropical reforestation. In 1991, nine private enterprises, in conjunction with the Ministry of Agriculture, Forestry and Fisheries, established the Research Association for Reforestation of Tropical Forest (RETROF) with a five-year mandate. RETROF receives half its funding from private companies and half from the government. It coordinates, reviews, and advises specific corporate projects.¹⁰⁵ It is designed to transfer Japanese knowledge and technology to tropical reforestation projects,

¹⁰³Based on interviews at the Environment Departments of Mitsubishi, Marubeni, Nissho Iwai, Sumitomo, and Itochu, Tokyo, April-June, 1994. Also see Nissho-Iwai, "Environment 21: Nissho-Iwai Corp," internal document (Tokyo: Environmental 21 Division, Nissho-Iwai, 12 February 1991).

¹⁰⁴There are government plans to increase assistance for large-scale reforestation in degraded areas. Government of Japan, National Action Plan for Agenda 21, internal document supplied by a MITI official (Tokyo: Government of Japan, January 1994), p.62

¹⁰⁵Interviews, Senior officials, RETROF, Tokyo, 27 April 1994.

especially for developing mixed species plantations.¹⁰⁶ Despite token corporate conservation projects and research on tropical reforestation, as we will see in later chapters, the impact of Japanese corporate research and investment in reforestation -- driven more by a desire to generate favourable publicity than by a desire to support sustainable commercial timber operations -- is limited.

The Japanese government has been criticized for ignoring, or even encouraging, destructive corporate environmental practices. The new Environment Law addresses the role of the government in monitoring the impact on the environment of overseas corporations. Article 35, section 2 states:

The State shall make efforts to take necessary measures e.g. providing information to corporations, so that the corporations can properly consider global environmental conservation etc. in the areas outside Japan where these corporations conduct their businesses.¹⁰⁷

The impact of this article is not yet clear. The Environment Law has no enforcement clause, and the example of "providing information to corporations" is weak. At a minimum, it sends a signal to corporations to pay attention to environmental factors. At a maximum, it could provide a future means to require corporations to follow stricter overseas environmental

¹⁰⁶RETROF, "Research Association For Reforestation of Tropical Forest," internal document (Tokyo: RETROF, October 1991).

¹⁰⁷Government of Japan, The Basic Environment Law, Law No. 91, 1993, Government of Japan, effective 19 November 1993.

regulations.¹⁰⁸ But this seems unlikely. Moreover, even if the Japanese government starts to monitor and regulate corporations, it would still leave untouched the critical impact of wasteful consumption, low consumer and export prices, import barriers, and the residual consequences of past practices.¹⁰⁹

CONCLUSION

In sum, the new Environment Law, the creation of environmental guidelines and departments for loan and aid agencies, and environmental aid demonstrate that the Japanese government recognizes the need to address overseas environmental problems. Yet there is more rhetoric than substance. The new law, and OECF, EXIM Bank, and JICA guidelines are vague and non-binding. Environmental reviews are poorly coordinated, and there are no enforcement mechanisms, transparent procedures, or concrete penalties. As well, environmental aid is not clearly defined. A portion is merely a reclassification of conventional projects rather than a substantial reallocation of funds. As a result, so far the bulk has been in yen loans and primarily funded water and sewage systems. Overseas environmental assistance is further undermined by a fractured administration dominated by economic

¹⁰⁸Interview with one of the drafters of the New Basic Environment Law, Environment Agency, Global Environment Department, Tokyo, 9 June 1994.

¹⁰⁹The Japanese government and trading companies have sporadically mentioned the importance of these factors for tropical timber management. But, as the final chapter demonstrates, these are superficial gestures with little practical impact on Southeast Asia's forests.

interests. Despite marginal increases in input, the Environment Agency, while an earnest supporter of better overseas environmental guidelines, still has relatively little influence. The Forestry Agency has not aggressively tackled environmental issues, and instead cautiously promotes tree plantations, a transfer of silvicultural expertise, and expanded trade and consumption. Meanwhile, MITI has staked out environmental turf to promote technology transfers and business initiatives. Given this context, it is not surprising that even though Japan relies heavily on natural resource imports, conservation, reforestation, and resource management are peripheral to government overseas environmental policies.

Beginning in the early 1990s, the private sector, led by Keidanren and the major trading companies, counter-attacked domestic and world environmental critics, producing a deluge of flowery policy statements, corporate brochures, and public advertisements. Although a tiny amount of money has shifted to environmental research and showcase projects, these cosmetic policies contain few concrete mechanisms or sanctions to control overseas environmental impacts. Finally, while new government and corporate environmental policies only provide marginal benefits for Southern resource management, they serve an inauspicious function, creating a diversionary smokescreen that obscures the far more important consequences of Japanese wasteful consumption, low prices for raw materials, unsustainable purchasing practices, import barriers, and the residual effects of past practices. During 1994

discussions, government and business leaders pushed conversations away from these crucial factors and toward the content of the new environment law, the 'comprehensive' environmental guidelines, the 'extensive' investments in environmental projects, the 'influential' environmental departments, and perhaps most consistently, Japan's 'impressive' environmental aid. In short, the rhetoric enveloping Japanese overseas activities undeniably shifted in the early 1990s; but the accompanying policies are too diluted, inconsistent, and marginal to alter the nucleus of Japan's shadow ecology, and only minor, peripheral changes have occurred. Before turning to a specific analysis of the impact of Japan's shadow ecology on timber management in the Philippines, Indonesia, and Borneo Malaysia, the next chapter outlines a framework to understand the politics of resource management in Southeast Asia.

Chapter Three

A MODEL OF RESOURCE MANAGEMENT IN CLIENTELIST STATES

The allocation and management of natural resources in developing countries has gained increased attention in the last decade as worldwide scarcity and environmental catastrophe loom. Forestry management and the causes of tropical deforestation have received particular attention as loss of these trees has been linked to siltation, erosion, flooding, and most ominously, global warming. Most explanations of forestry problems have focused on technical or economic factors, the content of specific policies, the role of international organizations and finance,¹ and the impact of poverty and population growth. Surprisingly little attention has been given to the role of domestic political forces in the South, even though in many situations this appears to be a key factor.²

¹As noted in chapter one, while scholars have analyzed links between multilateral financial institutions and forestry mismanagement, there has been little attention given to the environmental impact of peaceful interaction between two states. Small portions of this chapter are from Peter Dauvergne, "Patron-client Politics and Natural Resource Allocation and Management in the Third World: A Case Study of the Timber Industry In The Malaysian States of Sabah and Sarawak," Unpublished Course Paper, Department of Political Science, University of British Columbia, 1992.

²Environmentalists sometimes point to political corruption as a key factor in resource mismanagement. But this has generally taken the form of accusations, without any reference to concrete political conditions or societal arrangements in these countries. Until recently, politics has been ignored in much of the academic analysis on environmental change. This is discussed by Michael Redclift, Sustainable Development: Exploring the Contradictions (London: Methuen, 1987); and Adams, Green Development. One

By paying more attention to the nature of the state and to policy implementation, this chapter builds on the patron-client model to understand links between Southern politics and resource management. I argue that 'modern' patron-client networks interact with political executives, bureaucracies, courts, and militaries to lower Southeast Asian state capacity to enforce resource regulations. The first part of this chapter sketches the main features and analytical advantages of a patron-client framework. Then, after outlining the evolution of patron-client ties in Southeast Asia, I borrow ideas from Joel Migdal's work on state-society relations to explain how these modern relations undermine state capacity. This creates a model of resource management in clientelist states.

PATRON-CLIENT MODEL OF ASSOCIATION

The patron-client model was initially developed by anthropologists to explain traditional village-level, dyadic power relations. The anthropological patron-client model is a personal exchange relationship between two persons with unequal status, power or resources. The higher ranked person provides protection and benefits (often material) to a lower ranked person in exchange for loyalty and assistance, including personal services. Although the client usually benefits less than the patron, this reciprocity distinguishes patron-client relations from relations of pure

exception is Piers Blaikie, The Political Economy of Soil Erosion in Developing Countries (New York: Longman, 1985).

coercion or formal authority which also link individuals of different status.³ The personal and reciprocal qualities of patron-client relations contribute to feelings of trust, affection and obligation, often creating a durable bond between the two people. In this way, patron-client relations create traditional legitimacy. The glue that binds the dyadic relationship is the agreement to "exchange favours and to come to each other's aid in time of need."⁴ If either side neglects to reciprocate, the relationship generally ends. The essential defining characteristics of traditional dyadic patron-client relations, then, are asymmetry, informality, personal contact, and reciprocity.

Many patron-client theorists argue that clients enter into dyadic patron-client relationships to safeguard their subsistence and increase security.⁵ This generalization apparently has numerous exceptions, including Sabah and Sarawak.⁶ A more useful

³"Clients are not...slaves, serfs or indentured labour. They too have valued assets - their support and their numbers - and patrons can take neither for granted." John Waterbury, "Clientelism Revisited," Government and Opposition 14, no. 2 (1979), p.224.

⁴Carl H. Landé, "The Dyadic Basis of Clientelism," in Steffen W. Schmidt et al., eds., Friends, Followers and Factions: A Reader In Political Clientelism (Berkeley: University of California Press, 1977), p.xiv.

⁵See James C. Scott, "Patron-Client Politics and Political Change in Southeast Asia," American Political Science Review 66, no. 1 (March 1972), pp.91-113; and Waterbury, "Clientelism revisited," pp.217-228.

⁶For Sabah and Sarawak, see R.S. Milne, "Patrons, Clients and Ethnicity: The Case of Sarawak and Sabah in Malaysia," Asian Survey 13 (October 1973), pp.891-907. For Japan, see Peter Cheng,

way of understanding client action is to view their strategies as "interest-maximizing rather than risk-minimizing."⁷ In other words, clients enter into patron-client relationships because it is the most efficient and effective means to improve their socio-economic position.

Building dyadic alliances is relatively easy since "it involves the simple trading of favours and not the more difficult task of furthering collective goals."⁸ With clients eager to improve their lifestyle, patrons eager to increase their power, and alliances fairly easy to form, large groups develop based on dyadic patron-client exchange (sometimes called clientelism). Political scientists in the 1960s and 1970s extrapolated the anthropological model to understand these groups. A patron-client cluster is a patron's immediate following, perhaps twenty to thirty people. A patron-client pyramid comprises not only a patron's direct clients but as well the immediate following of these clients. (It is assumed that one person can be both a client and a patron.) A patron-client network is a web of patron-client pyramids linked together by a common patron. Alliances of patron-client clusters, pyramids, or networks can create factions.⁹

"Political Clientelism In Japan: The Case of "S", Asian Survey 28 (April 1988), pp.471-483. Cheng argues that the Japanese bureaucracy contains significant patron-client relations despite the security and prosperity of Japanese bureaucrats.

⁷Jean C. Oi, "Communism and Clientelism: Rural Politics in China," World Politics 37, no. 2 (January 1985), p.263.

⁸Landé, "The Dyadic Basis of Clientelism," p.xv.

⁹J. Scott, "Patron-Client Politics," pp.96-97.

Extrapolating dyadic patron-client relations to these larger concepts has been criticized for over-stretching a micro-level model to understand macro-level phenomena.¹⁰ It is in fact quite difficult, if not impossible, to 'find' and accurately describe the dyadic components of patron-client political structures. To overcome this problem, rather than taking on the laborious task of determining the specific composition of patron-client clusters, pyramids, and networks, it is more useful to focus on informal, personal, reciprocal, and asymmetrical "patterns of interaction and exchange."¹¹ Emphasizing a specific type of exchange relationship rather than structure accepts that these ties can vary in their intensity, duration, and type of resources involved. Although expanding a micro-level model has unavoidable risks, there are a number of advantages, especially for understanding political forces that shape natural resource management in the South.

ADVANTAGES OF PATRON-CLIENT ANALYSIS

The patron-client model is not a grand theory capable of explaining everything -- rather, as a middle-range perspective, it

¹⁰See Robert Kaufman, "The Patron-Client Concept and Macro-Politics: Prospects and Problems," Comparative Studies in Society and History 16, no. 1 (June 1974), pp.284-308.

¹¹S.N. Eisenstadt and Luis Roniger, "The Study of Patron-Client Relations and Recent Developments in Sociological Theory," in S.N. Eisenstadt and René Lemarchand, eds. Political Clientelism, Patronage and Development (London: Sage Publications, 1981), p.276. Also see Eisenstadt and Lemarchand, "Introduction," in Ibid., p.2.

is confined to one particular set of political relationships.¹² This allows greater detail and nuance for analyzing how domestic politics shape natural resource use than is possible, for example, with world system theory or dependency frameworks.¹³ According to Christopher Clapham, it is "one of a number of middle-range concepts through which the possibility of a comparative social science may -- however dimly and elusively -- be glimpsed."¹⁴

The patron-client model enables the analyst to move beyond formal institutions, groups and policies and towards informal power relations, fluid associations and personal exchange. This helps account for dynamic and sudden change and for political systems characterized "by a lack of clear dividing lines between political groups and a great deal of shifting and switching among peripheral group members."¹⁵ It also overcomes problems of many economic studies of natural resource management in the South that stress impersonal market-based exchange. As well, it helps explain why a

¹²For a discussion of the trend toward, and merits of, middle-range theory, see Howard J. Wiarda, "Toward the Future: Old and New Directions in Comparative Politics," in Howard J. Wiarda, ed. New Directions in Comparative Politics, revised ed. (Boulder: Westview Press, 1991), pp.221-250.

¹³The eminent scholar of world system theory is Immanuel Wallerstein. See Immanuel Wallerstein, The Modern World System (New York: Academic Press, 1976). For an overview of the dependency approach, see Tony Smith, "The Dependency Approach," in Wiarda, ed., New Directions, revised ed., pp.118-130.

¹⁴Christopher Clapham, "Clientelism and the state," in Christopher Clapham, ed., Private Patronage and Public Power: Political Clientelism in the Modern State (London: Frances Pinter, 1982), p.30.

¹⁵Landé, "The Dyadic Basis of Clientelism," p.xix.

bureaucrat's power can be based more on personal connections than on a formal position or why a political party may resemble an uncoordinated gathering of powerful leaders and their loyal followers.¹⁶ Many political models are constrained by their focus on formal, institutional arrangements, and are unable to explain processes that occur outside this framework.¹⁷ This can be a serious limitation since, as James Scott notes, "bureaucratic political parties in Southeast Asia are often thoroughly penetrated by informal patron-client networks that underlie the formal structure of authority."¹⁸ By focusing on informal rather than formal relations, important insights can be gained into distribution patterns, including appointments to bureaucratic positions, awarding of government contracts, and allocation of state revenues. Formal structures, however, cannot be ignored when examining patron-client relations. At the very least, "formal structures are relevant to patron-client systems, if only because they provide the critical resources necessary to build and sustain such a system."¹⁹

Patron-client analysis accounts for the importance of traditional relations of power and concepts of legitimacy and authority. It provides continuity with the past and considers indigenous values and beliefs as well as contemporary variations.

¹⁶J. Scott, "Patron-Client Politics," p.92.

¹⁷Structural-functionalism is especially prone to this problem.

¹⁸J. Scott, "Patron-Client Politics," p.92.

¹⁹Kaufman, "The Patron-Client Concept," p.301.

Rene Lemarchand argues that since the patron-client model "cuts across both 'traditional' and 'modern' referents", it has a "heuristic value generally missing from the conceptual arsenal of either 'modern' or 'traditional' polities, [and] it directs attention to processes of adjustment between traditional and modern patterns of behaviour, expectations, and normative orientations to politics which might otherwise go unnoticed."²⁰ Traditional power arrangements and concepts of authority provide 'modern' patron-client links, which would in many countries be viewed as simple corruption, with a certain degree of legitimacy. Corruption entails a legal violation which is perceived as illegitimate by the community and thus contributes to a loss of authority. Patron-client exchange may sometimes violate formal law, but its roots in tradition mean that even when it is labelled 'corruption', there is not necessarily any loss of authority. In fact, ignoring patronage duties may even contribute to a greater loss of legitimacy and authority than violating formal laws.

Patron-client analysis accounts for vertical links from urban to rural areas which cut across class, ethnicity, language and religious differences. Membership is based on ties to the leader and is specific to each link; it is not based on shared horizontal ties among followers. Models that isolate ethnic, religious or class groups have difficulty explaining intra-group politics and cooperation between segments of different groups. For natural

²⁰Rene Lemarchand, "Political Clientelism and Ethnicity in Tropical Africa: Competing Solidarities in Nation Building," American Political Science Review 66, no. 1 (March 1972), p.68.

resource issues such as timber, patron-client analysis points to the important cross-cutting ties between central financing, ownership and control, and local contractors, managers, and workers. As well, in countries with competitive elections, a focus on patron-client politics directs attention to a partial vertical redistribution of natural resource profits as central party members 'buy' rural votes.²¹ Of course, not all patterns of political behaviour are reducible to patron-client relations.²² Ethnicity, class, religion, language, nationalism, party ideology, and central-regional relations are just some of the other factors that exist alongside patron-client links. Depending on the timing, situation, and specific context, the impact of patron-client relations will vary. However, focusing on patron-client ties is particularly useful for understanding logging in Southeast Asia since these have historically been, and continue to be, the dominant force shaping timber allocation and management.

Finally, the patron-client model is especially useful for understanding cooperation between individuals and groups in times of peace and stability. (In contrast, class or ethnic-based models have generally been limited to analyzing conflict.) It effectively explains the emergence, transformation and continuance of groups whose membership is not based on shared horizontal characteristics but where people are linked vertically, sharing few common

²¹Anthony Hall, "Patron-Client Relations: Concepts and Terms," in Schmidt, et al., eds., Friends, Followers and Factions, p.512.

²²Lemarchand rightly stresses this point, Lemarchand, "Political Clientelism," pp.68-90.

characteristics, often of different status, and perhaps not even knowing each other since the common link is personal ties to the leader. The emphasis on cooperation, however, does not preclude an understanding of conflict. Robert Kaufman notes that while "patron-client exchange is premised on hierarchical distributions of power and resources, the concept simultaneously allows for (and at times suggests) the possibility of intense conflict between narrowly based, shifting patron-client clusters and pyramids."²³ The concept of factions is particularly valuable for analyzing conflict between patron-client units,²⁴ or conflict within, for example, an ethnic group.

Despite these advantages, for much of the 1980s and early 1990s, relatively little has been written on patron-client relations.²⁵ As patron-client ties evolve -- and some argue dissipate -- many comparative politics specialists have turned to

²³Kaufman, "The Patron-Client Concept," p.286.

²⁴Jean-Francois Medard, "The underdeveloped state in tropical Africa: Political clientelism or neo-patrimonialism?" in Clapham, ed., Private Patronage, p.168.

²⁵There are a few recent studies. For example, see Jonathan Fox, "The Difficult Transition From Clientelism To Citizenship," World Politics 46 (January 1994), pp.151-184; the collection of articles in Luis Roniger and Ayse Gunes-Ayata, eds. Democracy, Clientelism and Civil Society (Boulder: Lynne Rienner Publishers, 1994), pp.1-18; Carlene J. Edie, Democracy by Default: Dependency and Clientelism in Jamaica (London: Lynne Rienner Publishers, 1991); Robert Gay, "Community Organization and Clientelist Politics in Contemporary Brazil: A Case Study from Suburban Rio de Janeiro," International Journal of Urban and Regional Research 14 (December 1990), pp.648-666; Eliphaz Mukonoweshuro, "Ethnicity, Class and Clientelism in Sierra Leone Politics: A Methodological Critique," Plural Societies 20 (September 1990), pp.65-91; and Cheng, "Political Clientelism in Japan," pp.471-483.

other analytic tools. Yet, these relations are still a key feature of many Southern states. Luis Roniger writes: "While it would be absurd to predict that certain types of relationships -- friendship, for instance -- would disappear following development, this has been the main argument regarding clientelism (in both cases, it would seem more reasonable to expect changes in structure rather than their natural demise)." ²⁶ In Southeast Asia, patron-client ties remain extensive, though there are important structural differences between 'traditional' and 'modern' relations.

MODERN PATRON-CLIENT RELATIONS IN SOUTHEAST ASIA

Traditional patron-client relations in Southeast Asia have been altered by evolving economic, social and political circumstances, especially during the shift from colonialism to independence. Traditional relations were generally characterized by highly affective ties based on kinship, village, or neighbourhood bonds. A patron typically relied on personal skills, wealth (largely through private control of local resources), and sometimes connections to more powerful patrons. Loyalty, obligation, honour and non-material rewards supplemented material exchanges. These ties involved face-to-face contact and multiple kinds of exchange.

Colonialism, the spread of market capitalism in the twentieth century, urbanization, and the growth of the state over the last

²⁶Luis Roniger, Hierarchy and Trust in Modern Mexico and Brazil (New York: Praeger, 1990), p.xiii

fifty years or so have contributed to important changes to patron-client relations. Exploiting political power to accumulate wealth has a long tradition in insular Southeast Asia. Monarchs taxed peasants and controlled commerce, using these funds to reward loyal followers. Colonialism and global economic links greatly increased the economic power and scope of the state, making it a key source of patronage.²⁷ After independence states continued to expand. In countries like the Philippines, as the size of the state increased, "access to the state machinery became more important than ever for the creation of wealth."²⁸ As a result, the state became a key source of material incentives to bind modern patron-client ties, including funds, licences, and career opportunities. State officials have also been absorbed by patron-client networks, ignoring state rules in exchange for presents, bribes, or some other particularistic concession. This extensive state patronage has fostered larger and larger patron-client networks in Southeast Asia. As Gordon Means notes, the state "provides the institutional framework for the extension of patron-client networks beyond the immediate circle of individual loyalties and friendships."²⁹

²⁷James Rush, The Last Tree: Reclaiming the Environment in Tropical Asia (New York: The Asia Society, 1991), pp.30-32.

²⁸Paul D. Hutchcroft, "Oligarchs and Cronies in the Philippine State: The Politics of Patrimonial Plunder," World Politics 42 (April 1991), p.423.

²⁹Gordon P. Means, Malaysian Politics: The Second Generation (Singapore: Oxford University Press, 1991), pp.298-99. In the context of Malaysia, Means claims that: "By the time of Dr. Mahathir, the patronage system had not only grown enormously, but it included many intermediate layers of middlemen in a more extensive and institutional system of rewarding loyalty and

Patron-client exchange is now more specific and less personal. Patrons are less likely to maintain regular contact with a client and more likely to exchange tangible goods, such as a licence for a 'political contribution.' As a result, modern patron-client relations are also based less on loyalty, obligation and honour.³⁰ Instead, patronage is a crucial means of building 'loyal' followers (at least temporarily). This is reinforced by immigration and domestic migration to large cities and towns that has produced large numbers of people who are most efficiently turned into 'loyal' followers using material incentives. For this reason political patrons often need to provide money, gifts, and government jobs to build power and maintain prestige and legitimacy. In areas with competitive elections this has been encouraged further as patron-client relations have become "closely linked to the national [or state] level with jobs, cash, and petty favours flowing down the network, and votes or support flowing upward."³¹ These trends contributed by the 1970s to "a comparatively large 'fairweather' periphery, a comparatively small core following, and a less 'constant' patron as well."³²

political support." Ibid., p.305.

³⁰Foreign corporations often supply a key ingredient for modern patron-client ties: money -- but foreign business executives, including the Japanese, are generally not directly involved in patron-client exchange relations.

³¹Scott, "Patron-Client Politics," p.105. Scott does note, however, that "in the midst of this change, old style patrons thrive." Ibid.

³²Ibid., p.107.

Patron-client connections have become increasingly unstable as the size of patron-client networks has grown, as personal contact has decreased, as clients have lost their sense of obligation, and as the number of 'fairweather' followers has increased. This instability is natural since "those on the periphery of the patron-client network become alienated and are cross-pressured between their pursuit of immediate but meagre benefits (in relation to other more favoured clients) and their aspirations for improved opportunities with a new winning coalition."³³ Despite these changes, the personal and asymmetrical nature of exchange, the lack of formal-legal contracts or institutional ties, and the reciprocal expectations make modern patron-client exchange significantly different from market exchange.³⁴ These exchange relations are a dominant characteristic of the societies of Southeast Asia. As patron-client structures evolve, and with the increase in the size and power of Southern states over the last 50 years or so, it is essential to understand the consequences of these clientelist societies on the state. Neo-patrimonial studies are one attempt to

³³Means, Malaysian Politics, p.317. The inherent instability of modern ties makes it virtually impossible to categorize and specify the membership of different patron-client networks -- a monumental task even in ideal circumstances -- since these continually dissolve and realign as patrons die or lose control of key resources.

³⁴This is a broad generalization. A more detailed description of modern patron-client relations in Indonesia, Malaysia, and the Philippines is provided in chapters four to six. For background on traditional patron-client relations in Southeast Asia, see S.N. Eisenstadt and Luis Roniger, Patrons, clients and friends: Interpersonal relations and the structure of trust in society (Cambridge: Cambridge University Press, 1984), Indonesia, pp.122-127, and the Philippines, pp.127-130.

give more attention to the links between the state, patronage, and patron-client networks.

NEO-PATRIMONIAL STUDIES

Neo-patrimonial studies are rooted in Max Weber's analysis of traditional authority where the distinction between public and private is obscured -- there is neither one objective law for all nor a principle of bureaucratic impartiality. Instead, decisions are based on "personal connections, favours, promises, and privileges."³⁵ Jean-Francois Medard bluntly declares, in a patrimonial state, "politics becomes a kind of business with two modes of exchange: connections and money. The state is a pie that every one wants to eat."³⁶ Although focusing more on a single ruler, neo-patrimonialism points to many of the same features as patron-clientelism -- including informal relations, particularism, and instrumental exchange.³⁷ For example, Paul Hutchcroft's neo-patrimonial analysis of natural resource exploitation in the Philippines focuses on changes to patron-client relations as access

³⁵Max Weber, Economy and Society, ed. Guenther Roth and Claus Wittich (New York: Bedminster Press, 1968), vol. 3, p.1041, quoted in Hutchcroft, "Oligarchs and Cronies," p.415.

³⁶Medard, "The underdeveloped state," p.170.

³⁷See Harold Crouch, "Patrimonialism and Military Rule in Indonesia," World Politics 31 (July 1979), pp.571-87. Neo-patrimonialism is similar to the model of a bureaucratic polity. For example, see F.W. Riggs, Thailand: The Modernization of a Bureaucratic Polity (Honolulu: East-West Center Press, 1966); and J.L.S. Girling, The Bureaucratic Polity in Modernizing Societies, Occasional Paper No. 64 (Singapore: The Institute of Southeast Asian Studies, 1981).

to the state has become increasingly important for collecting and distributing patronage. In the Philippines, this has created a state where key bureaucratic officials and political leaders (especially Ferdinand Marcos and family) plundered the natural resources for personal gain.³⁸ Neo-patrimonial analysis is particularly valuable in pointing to the dominance of intrastate factional competition over substantive policy debates in determining the distribution of natural resources. The difference between the patron-client model and the neo-patrimonial model is largely a matter of emphasis,³⁹ and patron-client analysis can be strengthened by the empirical findings and conceptual conclusions of neo-patrimonial studies.

Yet despite the similarity to patron-clientelism, a neo-patrimonial framework has certain drawbacks for analyzing resource management in Southeast Asia. The model tends to overestimate the dominance of the state and neglect significant societal constraints to state management.⁴⁰ Neo-patrimonial studies emphasize central elites, and often point to a 'super-patron' as a key source of mismanagement. Actors further down the causal chain -- such as

³⁸See Hutchcroft, "Oligarchs and Cronies," pp.414-450.

³⁹Bruce Gale, Politics and Public Enterprise in Malaysia (Kuala Lumpur: Eastern Universities Press Sdn. Bhd., 1981), pp.4-10.

⁴⁰Neo-patrimonial studies have accurately pointed to the pervasive links between political and military patrons and business clients as a key feature of Southeast Asian politics and an important means for societal groups to share in the spoils of office. But there have been no major neo-patrimonial studies that examine how these links shape state capacity to enforce rules and laws.

contractors, sub-contractors, and middle-level administrators -- are often neglected. On the other hand, the patron-client model spotlights multiple levels of interaction yet still places primary responsibility with the most powerful elites.⁴¹ Neo-patrimonial studies also downplay the role of urban-rural links, instrumental exchange that occurs outside of the state, and the impact of societal structure and social resistance on state directives, policies and goals. As a result, a neo-patrimonial framework has difficulty explaining the resilience of pervasive patronage in absence of, or after the fall of, a 'super-patron'.⁴² Neo-patrimonial studies, however, do have the analytical advantage of close attention to the state as a source of patronage. To shift the focus of the patron-client model more to the role of state patronage, and to gain a better understanding of the consequences of pervasive patron-clientelism on the nature of the state itself,⁴³ I now turn to the theoretical work of Joel Migdal.

⁴¹Michael Dove persuasively argues that elites must be held responsible for the destruction of tropical rain forests, even if many actors are involved in the actual process. Michael R. Dove, "Marketing the Rainforest: 'Green' Panacea or Red Herring?" Hawaii: East-West Center, No. 13, May 1994, pp.1-8.

⁴²To help dodge this problem Hutchcroft uses the term "patrimonial features." See Hutchcroft, "Oligarchs and Cronies," pp.414-417.

⁴³It is commonly accepted in the literature on state-society relations in Southeast Asia that state patrons channel extensive patronage to individuals and groups in society. This is seen as the main route for societal input into otherwise strong states. See Dwight Y. King, "Indonesia's New Order as a Bureaucratic Authoritarian Regime: What Difference Does It Make?" in Benedict Anderson and Audrey Kahin, eds., Interpreting Indonesian Politics: Thirteen Contributions To The Debate. Interim Reports Series, Publication No. 62 (New York: Cornell University, 1982), p.113; and

STRONG SOCIETIES AND WEAK STATES

Borrowing some of Migdal's concepts sharpens the analytical power of the patron-client model.⁴⁴ In the tradition of Weber, he defines a state as an organization composed of institutions (military, bureaucracy, courts, police) coordinated by state leaders (executive), that has the authority or ability to make and enforce 'rules of the game' in a given territory, at least partially through a monopoly on violence.⁴⁵ For Migdal, a society is the arena in which states and nonstate organizations interact.⁴⁶ He argues that to understand Southern politics it is crucial to examine "how the organization of society, even in remote areas, may dictate the character and capabilities of politics at the center, as well as how the state (often in unintended ways) changes society."⁴⁷ Migdal's dependent variable is 'state capabilities'. These include state capacity to affect societal structures and relations even in remote areas, "regulate social relationships,

Andrew MacIntyre, Business and Politics in Indonesia (North Sydney, Australia: Allen & Unwin, 1990), p.8. What is not commonly recognized is that these pervasive patron-client ties between the state and society have profound implications for the capacity of the state to enforce laws.

⁴⁴The following summary is based on Joel S. Migdal, Strong Societies and Weak States: State-Society Relations and State Capabilities in the Third World (Princeton: Princeton University Press, 1988). Also see Joel S. Migdal, "A Model of State-Society Relations," in Wiarda, ed., New Directions, pp.45-58.

⁴⁵Migdal, Strong Societies and Weak States, see prologue, footnote 2, and pp.19-20.

⁴⁶The distinction between state and nonstate organizations is an analytical device; in reality, the difference is often blurred.

⁴⁷Migdal, Strong Societies and Weak States, Prologue, p.xvii.

extract resources, and appropriate and use resources in determined ways." Strong states have high capabilities, weak states have low. State capacity is determined by the structure of society and the reciprocal consequences of the interplay between the state and other social organizations. The key question to determine the extent of state capacity is simple: Is the state able to "get people in society to do what they want them to do?"⁴⁸ To answer this question it is essential to examine societal forces that resist or cooperate with state directives, actions, and policies. It is also necessary to look at legislation, national plans, and management regulations since these represent state goals and priorities. In strong states like Israel, nonstate organizations "not only comply with state rules to an impressive degree, but they also accept the rightness of the state's making the rules of the game."⁴⁹ In weak states like Sierra Leone, faced with the cumulative resistance of nonstate organizations, the state is often unable or unwilling to enforce laws or collect taxes.

Migdal develops a model of a society in which the state battles other organizations for social control -- "a mélange in which the state is one organization among many."⁵⁰ This model points to both formal and informal political and social forces within society which resist state rules and authority. It

⁴⁸Ibid., p.4, Prologue, xiii.

⁴⁹Ibid., p.173.

⁵⁰Migdal, "A Model of State-Society Relations," p.56. Also see Migdal, Strong Societies and Weak States, p.40.

emphasizes "multiple sets of rules of the game in society" and conflict and competition between these sets of rules. For Migdal, "the central political and social drama of recent history has been the battle pitting the state and organizations allied with it (often from a particular social class) against other social organizations dotting society's landscape." Low state capacity is directly related to the structure of society. State power is corroded by "the resistance posed by chiefs, landlords, bosses, rich peasants, clan leaders," and "their various social organizations." These organizations "make rules against the wishes and goals of state leaders."⁵¹ In the case of Sierra Leone, British colonization -- in the context of rapid changes to the world economy and technology -- laid the basis for a weak state. This created "a society of fragments -- each fragment with its own forms of social control, its own array of rules, rewards, sanctions, and symbols." The resulting conflict between state and nonstate organizations determines "which strategies are to be adopted, who will make the rules, and who will determine the property rights that define the use of assets and resources in society."⁵²

In most of the South, societies are surprisingly resilient, like "an intricate spider's web; one could snip a corner of the web away and the rest of the web would swing majestically between the

⁵¹Migdal, Strong Societies and Weak States, p.30, pp.27-28, p.33, p.31.

⁵²Ibid., p.135, p.28.

branches, just as one could snip center strands and have the web continue to exist." Fragmented social control is the key reason for this resilience. While the state is the most powerful organization in these "weblike" societies, the combined influence and resistance of other social organizations is considerable. For example, in Sierra Leone, "no single chief can stand up to the strength of the state's leaders, but the sum total of all the chiefs' quiet control in remote parts of the country can have a crippling effect on state leaders' attempts to increase state capabilities." It is also important not to equate state capacity with the ability to remove one "strongman." According to Migdal, "individual strongmen may go, but the overall distribution of social control may remain remarkably constant."⁵³

Migdal builds from his model and develops a theory to explain why most Southern states are weak and a few are strong. For parsimony, his model portrays the state as "a more or less monolithic organization, a single actor, without significant differentiation of parts." As he develops his theory, however, he refines this view of the state by pointing to "situations of accommodation between parts of the state and social organizations with opposing rules of the game."⁵⁴ Differentiating the state makes it clear that executive decisions are distinct from state output. Internal divisions and interaction with other social organizations alter the impact of a state so it is often different

⁵³Ibid., p.37, p.138, p.265.

⁵⁴Ibid., both quotes, p.182.

than the intent of the leaders. As we will see later, this has a critical impact on state capacity to implement policies.

To facilitate melding Migdal's ideas with patron-client analysis, it is useful to narrow some of his core ideas.⁵⁵ He argues that most states fall on the weak end of a strong-weak continuum. My study does not attempt to place the states of Southeast Asia on this continuum. While factors like poor tax and royalty collection, minimal reforestation, general disregard for regulations, widespread illegal logging, and smuggling all indicate 'weak' states, they only point to low capacity in one policy sector. The same states could have much greater control over, for example, manufacturing. Migdal's weak-strong continuum can be refined by developing continuums of individual state capacity depending on different policy sectors.⁵⁶ Logically, a weak state will have the majority of its policy initiatives fall on the weak end of the continuum. Even here, however, there may be some cases of high state capacity. This makes sense since, depending on the policy area and the stakes, societal resistance to state initiatives and state determination to enforce its rules will vary. For example, environmental issues are generally a low priority for

⁵⁵Some interpretation and latitude is necessary when using Migdal's ideas, definitions, and concepts since I am studying Southern resource management while he focuses on social policy. I try to maintain the spirit of his work, even though my emphasis is somewhat different.

⁵⁶In my view, this is a congruous addition to Migdal's work. He argues states can be both strong and weak, depending on the activity -- what he calls the "duality of states." Migdal, Strong Societies and Weak States, p.9.

states while environmental regulations are often quite threatening to nonstate organizations, particularly powerful businesses. As a result, state capacity to enforce environmental regulations is frequently low. On the other hand, state resolution to tackle foreign control over natural resources may be strong while resistance from nonstate organizations may be minimal, or in some instances, these organizations may even support the state. Therefore, a state may appear weak when tackling environmental problems yet seem strong when tackling foreign control.

A second useful modification to Migdal's model is to highlight different societal organizations depending on the specific issue, problem, or state policy. This is logical since nonstate organizations can pick areas of resistance while states have diverse, often contradictory goals, and must tackle a plethora of issues and crises. Undeniably, even in the face of strong resistance from organizations in society, state actions have critical consequences, though often these are unintended. This is hardly surprising. Compared to other social organizations states have huge budgets, complex bureaucracies, and powerful coercive tools. Yet societal organizations, while having far fewer financial and human resources than a state, can concentrate their opposition, or seek alliances, sometimes even dominating sections of the state. For example, for a policy like affirmative action, the business community may be the decisive societal group opposing the state. For timber in Southeast Asia, patron-client networks are the most important obstacle to state initiatives and the major

alternative set of 'rules of the game' for management and allocation. Other organizations -- like tribes (Penan in Sarawak) and insurgency movements (communists in the Philippines) -- contribute to resistance but have minor consequences compared to patron-client ties. For this reason, when examining state initiatives to manage timber in Southeast Asia, it is most efficient to concentrate on patron-client networks since they are the central societal force undermining state control.⁵⁷

A state confronting and penetrated by ubiquitous patron-client relations can be seen as one kind of weak state -- what some authors have labelled a clientelist state.⁵⁸ In clientelist states, goals and priorities are modified by particularistic, rent-seeking behaviour of patrons and clients as they interact with the state. For resource management, Southeast Asian states can be

⁵⁷Many political analysts of Southeast Asia emphasize the critical impact of extensive patron-client relations. For example, see David Wurfel, Filipino Politics: Development and Decay (Quezon City: Ateneo de Manila University Press, [also published by Cornell University Press], 1988); Crouch, "Patrimonialism and Military Rule in Indonesia," pp.571-87; Scott, "Patron-Client Politics," pp.91-113; Riggs, Thailand; and Gale, Politics and Public Enterprise in Malaysia. As Gale notes, "the Southeast Asian region provides many examples of regimes in which weak political institutions exist together with pervasive patrimonial or patron-client structures. Thailand, Indonesia, and the Philippines are perhaps the best examples." Gale, Politics and Public Enterprise in Malaysia, p.11. Sabah and Sarawak can be added to this list of best examples.

⁵⁸For example, see John Duncan Powell, "Peasant Society and Clientelist Politics," American Political Science Review 64 (June 1970), pp.411-26. Some authors have also called this a clientele system.

broadly conceived as clientelist states.⁵⁹ The following section looks briefly at policy implementation in the South. Then, by borrowing and extrapolating Migdal's key concepts, I build on patron-client analysis to develop a model of natural resource management in clientelist states.

CLIENTELIST STATES AND POLICY

When discussing state control over resource policies, it is important to distinguish clearly between policy formation and policy implementation. In terms of policy development a state may dominate -- that is, there is little or minimal societal input. Yet this same state may be 'weak' in the sense of facing formidable obstacles to implementing state rules. For example, the Indonesian state dominates policy formation but in some cases has great difficulty enforcing policy regulations and maintaining societal compliance.⁶⁰ The sharp contrast between state power to develop

⁵⁹Since state capacity and the impact of patron-client networks changes across different policies, for this work the term 'clientelist state' only refers to the management of natural resources. For other policies, clientelist forces may be less significant in shaping state capacity.

⁶⁰Since the New Order was established by General Suharto in the mid-1960s, the state has become increasingly centralized and now dominates policy *formation*. For this reason, most academic studies portray the Indonesian state as dominating society. For a summary, see MacIntyre, Business and Politics, pp.6-21. Specific examples include Benedict Anderson, "Old State, New Society: Indonesia's New Order in Comparative Historical Perspective," Journal of Asian Studies 42, no. 3 (May 1983), pp.477-496; Donald Emmerson, "Understanding the New Order: Bureaucratic Pluralism in Indonesia," Asian Survey 23 (November 1983), pp.1220-1241; the bureaucratic-authoritarian model by King, "Indonesia's New Order," pp.104-117; and Karl Jackson, "Bureaucratic Polity: A Theoretical Framework for the Analysis of Power and Communications in Indonesia," in Karl

policies and the power to enforce policies has contributed to sharp differences between scholars who see Southern states as irrevocably weak and those who see these states as strong.⁶¹ It is also important to distinguish between the content and effects of policies. Many comparative studies of Southern policies make direct links between policy substance and the mismanagement of natural resources. These studies show that many Southern policies have serious technical flaws that contribute to environmental degradation. They also demonstrate that the ability of the bureaucracy to develop policies is weakened by organizational difficulties and elite attitudes.⁶² But even though the content of resource policies is undeniably important, a more *immediate* factor

Jackson and Lucien Pye, eds., Political Power and Communications in Indonesia (Berkeley: University of California Press, 1978). This conventional view has been challenged somewhat by MacIntyre's 1990 study which shows that, since the mid-1980s, business has gained limited input into developing legislation, regulations, and specific policy measures. He does not, however, look closely at enforcement. As we will see in the next chapter, state domination of the process of forming resource policy does not translate into effective implementation.

⁶¹Theoretical models that concentrate on the process of policy development and decision making -- such as corporatism or bureaucratic authoritarianism -- tend to portray a strong state. For overviews, see Douglas A. Chalmers, "Corporatism and Comparative Politics," in Wiarda, ed., New Directions, pp.59-81; and John D. Martz, "Bureaucratic-Authoritarianism, Transitions to Democracy, and the Political-Culture Dimension," in Wiarda, ed., New Directions, pp.199-220. In my view, these studies overestimate the ability of Southern states to control the distribution and management of natural resources.

⁶²For a discussion of how comparative politics theories could strengthen comparative studies of environmental policy making, see Sheldon Kamieniecki and Eliz Sanasarian, "Conducting Comparative Research on Environmental Policy," Natural Resources Journal 30 (Spring 1990), pp.321-339.

driving mismanagement is often the willingness and ability of the state to implement policies.

Northern states also have poor records for environmental protection and resource management, partially due to corporate lobbying and partially to the tendency for bureaucracies to be dominated by economic interests. Yet, unlike in the South, in most cases, key battles to improve resource management occur *within* the state -- battles over legislation, interpretation of policy, and budget allocations. While Northern policies are certainly watered down during implementation, societal compliance to state regulations is much higher than in the South. For this reason, it is logical to dissect, analyze, and debate the nuances of Northern policies. But to do the same for Southern policies may simply divert attention from the more immediate problem: enforcement and compliance. This *does not* mean that resource management will be better in the North than in the South. But the core of the problem is likely to be different: in the North, policies dominated by economic concerns with weak environmental regulations; in the South, policies that are widely ignored.

In the next section, I sketch a model to explain why clientelist states of Southeast Asia are generally unable to enforce natural resource management rules. There are three interrelated reasons: the structure and norms of society support institutionalized 'corruption'; in order to survive, state leaders -- facing a web of patron-client relations -- sacrifice state capacity to enforce resource regulations; and finally, with minimal

supervision, many middle and lower-level bureaucrats become involved in patron-client exchange, ignoring state rules in order to make money, advance their careers, or create small patron-client units.

PATRON-CLIENT RELATIONS AND SYSTEMIC 'CORRUPTION'

Like the patron-client model, Migdal provides a nuanced understanding of corruption. He points to societal structure and state reactions as keys to understanding flagrant violations of state laws. He argues that "much of what is commonly called corruption is...behaviour according to dissenting rules, established by organizations other than the state."⁶³ Furthermore, "nepotism, cronyism, corruption, and arrogance" of state leaders is partially a response to surviving in a setting of fragmented social control. Seen in this light, "corruption and arrogance are mere symptoms of a complex relationship between state leaders and local strongmen."⁶⁴ In societies dominated by clientelism, patron-client ties permeate the state and nonstate organizations. Although modern patron-client relations differ from older forms in terms of stability and the nature of exchange, they are nevertheless a legitimate, accepted, even expected, part of the political process. While allegations of corruption, and pejorative labels such as 'crony' are part of formal debate and are used to justify

⁶³Migdal, "A Model of State-Society Relations," pp.54-55. Also see Migdal, Strong Societies and Weak States, p.31.

⁶⁴Migdal, Strong Societies and Weak States, both quotes, p.138.

investigations, these prevalent practices flow from societal structures and alternative rules of the game. They cannot be dismissed as simple 'corruption.' Focusing on specific cases of 'corruption' highlights a symptom rather than the cause of poor implementation. For this reason, campaigns in the Philippines, Malaysia, and Indonesia which have tried to stamp out 'corruption' with token firings, fines and jail sentences have had little impact. Of course, not all state officials in clientelist states are 'corrupt'. Some bureaucrats, military officers, and politicians work diligently to enforce laws, improve regulations, and raise revenue, even without strict supervision.⁶⁵ For management of a resource like timber, however, these officials tend to be either outside patron-client networks or belong to networks based on material incentives other than timber, though in some cases they are simply 'loyal' to the state.

LEADERS AND LOW STATE CAPACITY

In the clientelist states of Southeast Asia, political structures concentrate power among a small elite often motivated by personal gain. Top state leaders, including Presidents, Prime Ministers, and Chief Ministers, are often powerful patrons. But at the same time, leaders must manoeuvre in a societal web of patron-client relations. Confronted by strong resistance from nonstate

⁶⁵According to one critic of the Philippine state, an example is General Orlando Soriano. Marites Danguilan Vitug, The Politics of Logging: Power From the Forest (Manila: Philippine Centre for Investigative Journalism, 1993), pp.108-110.

organizations, and faced with potential threats from institutions within the state (often the military), state leaders, in order to survive, and to maintain societal stability, follow strategies that undermine state capabilities -- what Migdal calls the 'politics of survival'.⁶⁶ To weaken challenges from sections of the state, top leaders remove and shuffle state agency elites. To maintain or increase power, they appoint loyal followers, close friends, and family. As well, to preserve stability, they make nonmerit appointments to coopt powerful patrons, and ethnic, regional, and business leaders outside the state. They also use nonmerit appointments to hinder independent power centres from developing within the state. These coopted elites are often allowed to get rich through 'corruption'. This provides a means of control for state leaders. If these 'corrupt' officials step out of line, they can be charged and legally dismissed or jailed.

These survival strategies by leaders undermine state capacity. Shuffling administrative heads and making nonmerit appointments lower morale and loyalty to the state (as opposed to the leader), and weaken the ability and willingness to oppose local strongmen.⁶⁷ Surviving as leader involves maintaining an intricate balance between "restraining agencies sufficiently so they pose no threat to rulers while allowing sufficient organization so the agencies

⁶⁶A second characteristic of the 'politics of survival' is 'dirty tricks' such as torture or 'illegal' imprisonment. See Migdal, Strong Societies and Weak States, pp.223-226.

⁶⁷Ibid., p.240.

can perform the tasks necessary for state and leader survival."⁶⁸ This is often a difficult balance. As state capacity declines and the state is unable to provide basic services, leaders lose legitimacy. To maintain control, leaders distribute even more patronage. This dynamic -- state leaders using patronage to maintain loyalty and patronage undermining state capacity to keep citizens loyal -- can eventually spiral into a regime dominated by 'politics of plunder,' as in the Philippines under Marcos. While the survival strategies of leaders weaken state agencies at the top, these actions also debilitate state implementation.

PATRON-CLIENT TIES AND STATE IMPLEMENTORS

Effective state implementors -- middle and lower-level bureaucrats responsible for collecting taxes, monitoring projects, and enforcing rules -- are crucial for "determining whose authority and rules will take hold in region after region, the state's or the strongmen's." Migdal hypothesizes that "the politics of survival lessens backing and threats of sanctions from supervisors, thus making the implementor more attentive to possible career costs involving strongmen and peer officials. The result is a further weakening of the state's ability to make the rules governing people's behaviour."⁶⁹ In the weakest states there is almost no control of implementors; they will follow rules vastly different from those outlined in laws and policies. With poor supervision of

⁶⁸Ibid., p.227.

⁶⁹Ibid., p.238, p.241.

middle and lower-level bureaucrats, implementation is largely shaped by bargaining and deals between implementors, other state and party officials, and strongmen outside the state.⁷⁰ In clientelist states, bureaucrats who actually attempt to impose state rules must confront patron-client ties between state officials, local strongmen, and party officials, usually putting their career at great risk. These patron-client ties contribute to severe perversions in the use and distribution of state resources, and to state resources being used in ways that thwart state laws and regulations.⁷¹

As a result of poor supervision, and close ties between state implementors and patron-client networks, patrons sometimes capture segments of clientelist states. These patrons place followers, friends, or family "in critical state posts to ensure allocation of resources according to their own rules, rather than the rules propounded in the official rhetoric, policy statements, and legislation generated in the capital city or those put forth by a strong implementor."⁷² These patron-client ties -- operating in the middle and lower-levels of the military, bureaucracy, police, or courts -- contribute to widespread violations of state laws and regulations. State implementors such as customs officials, enforcement officers, concession monitors, permit issuers, 'look

⁷⁰Migdal calls this the "Triangle of Accommodation." Ibid., p.249.

⁷¹For a more general discussion, see Ibid., p.245, and p.141.

⁷²Ibid., p.256. Of course, for Migdal, all nonstate organizations have the potential to capture a section of the state.

the other way' in exchange for cash, gifts, career maintenance or advancement. Combatting illegal or lucrative timber 'mining' is particularly difficult since timber licences, concessions, and profits have been a key, and in some cases, the main glue for modern patron-client ties in Southeast Asia. Weak enforcement is reinforced by attitudes that place little value on natural resources. As a result, state rhetoric is generally misleading. Bureaucratic policies or official elite claims often oppose groups over-exploiting resources. Yet in reality, some state agencies accommodate, assist, or even strengthen, the practices that destroy natural resources.

CONCLUSION

In sum, I posit a model of a state battling patron-client networks for control over the rules of the game for the management and allocation of natural resources. In the clientelist states of Southeast Asia, state leaders are confronted with pervasive, unstable, informal, material-based patron-client ties throughout society. To survive in this fragmented society, leaders use patronage to construct large patron-client followings and coopt other powerful patrons. These vertical links contribute to stability by extending the influence of state leaders to the outlying areas, and by cutting across classes and ideologies. Paradoxically, while distributing patronage is a legitimate, even expected, part of building and maintaining power in Southeast Asia, it has disastrous consequences for state capacity. Extensive

nonmerit appointments undermine state morale, lower state efficiency, contribute to a cynical view of state laws, and perhaps most importantly, weaken supervision of state implementors. Implementors become integrated into patron-client units, receiving money or career advancements in exchange for ignoring management, tax, or customs regulations. In some cases, societal patrons manage to capture parts of the state, placing family, friends and followers in strategic positions. This contributes to state assets being used in ways inimical to state goals. It also makes it relatively easy for these patrons to skirt, resist, even ignore state policies. As a result, state resource management is dismal. There is little chance of quickly improving resource management in clientelist states. Pervasive patron-client ties throughout society lead state leaders to undermine state capacity and supervision in order to survive and maintain stability. The alliances and agreements made between implementors and regional patrons and politicians then reinforce these patron-client networks. This creates a circle which leaves little hope of breaking the pattern of poor implementation.⁷³

This modified patron-client model of resource management, by paying close attention to the nature of the state, the power of patrons at the state helm, and policy implementation, gains heuristic strength, while maintaining the advantages of focusing on informal-personal exchange relations, traditional concepts of power

⁷³This argument is the same as Migdal, though he is referring generally to social fragmentation rather than to patron-client relations. See Ibid.

and legitimacy, cooperation between vertically-linked individuals at all levels of society, and fluid ad hoc groups. Looking through this lens in subsequent chapters reveals salient features of the timber industry in Indonesia, Borneo Malaysia, and the Philippines including: a distribution of timber profits which mainly benefits the state political and business elite; unsustainable patterns of timber extraction and ineffective forestry management; formal policies and institutions weakened by informal practices and unstable 'rules of the game'; feeble state enforcement of timber regulations; and logging concessions, licences, and profits that link state leaders and implementors to timber-based patron-client networks. Each chapter has the same format. For background, I begin with a sketch of the evolution of patron-client relations. While emphasizing links between patron-client networks and the state, I then examine timber policies, practices, and enforcement of regulations, revealing the key domestic causes of logging mismanagement. This provides a context for a more accurate assessment of the environmental impact of evolving Japanese ODA and loans, corporate investment, technology transfers, and trade on timber management in Southeast Asia.

Chapter Four
JAPAN, PATRON-CLIENT POLITICS,
AND THE MISMANAGEMENT OF INDONESIAN TIMBER

Indonesia contains 10 percent of the world's rain forests, and around half of the remaining tropical forests of Asia. These remarkable forests contain "more species of plants and birds than the entire African continent."¹ The bulk of Indonesia's dipterocarp timber is on the outer islands of Kalimantan, Sumatra, Sulawesi, and Irian Jaya.² This valuable resource is rapidly disappearing. Commercial logging is the most important factor driving deforestation, estimated at about one million hectares per year.³ I argue that patron-client links between top politicians, military officers, bureaucrats and timber operators drive destructive logging and undermine state capacity to manage the forests.⁴ Ties at the pinnacle of the state distort policies and

¹Adam Schwarz, "Banking on Diversity," FEER 28 October 1993, p.58.

²Commercial trees in the Philippines, Sabah, Sarawak and Indonesia are mostly from the family dipterocarpaceae. In Indonesia, the common commercial name for this timber is meranti, and in the Philippines, lauan.

³FAO data (average for 1982-90), in National Science Teachers Association, World Resources 1992-93, p.286. The World Bank recently estimated annual deforestation at 1.1 million hectares. World Bank, Indonesia: Sustainable Development (Washington, 1993), p.7, cited Colin MacAndrews, "Politics of the Environment in Indonesia, Asian Survey 34 (April 1994), p.374.

⁴For a more general analysis of the impact of Indonesian political forces on deforestation, see Peter Dauvergne, "The Politics of Deforestation in Indonesia," Pacific Affairs 66, no. 4 (Winter 1993-94), pp.497-518.

weaken supervision of middle and lower-level state implementors. Many state implementors join or form timber-based patron-client networks, ignoring timber regulations in exchange for money, gifts, or career advancements. In some cases, state bureaus are captured by timber interests; instead of striving to implement state guidelines, these state tentacles work in the interest of timber companies, perverting policies and debilitating state capacity to enforce logging regulations. At present, with timber profits stoking the top, middle, and lower levels of the Indonesian clientelist state, timber companies are able to ignore selective logging rules and reforestation duties, extract enormous amounts of illegal logs, and evade corporate taxes and royalties.

While patron-client ties are a critical force driving mismanagement, Northern shadow ecologies -- especially Japan's -- have accelerated unsustainable logging. With Japanese government support in the 1960s and 1970s, trading companies provided technology and funds for logging operations on Indonesia's outer islands. To supply Japanese plywood plants, these trading companies then imported huge quantities of the best logs. Many of these logs were used to make plywood panels to mould concrete, known in Japan as *kon pane*. Although Indonesian state and business elites made quick money, Japan gained most of the economic benefits. Meanwhile, Indonesia's remote islands absorbed substantial environmental losses. Log prices were far below replacement or sustainable management costs. This is starkly revealed by the common Japanese practice of discarding *kon pane* --

made from Indonesian trees that likely took a century or more to grow -- after being used only one or two times.

In the early 1980s, the Indonesian government, angered by the lack of economic spin-offs, banned log exports and provided incentives to develop plywood processing. This has changed Japan's shadow ecology of timber in several key ways. Investment is now much lower as most trading companies sold their shares or simply withdrew in the late 1970s and early 1980s. There are also fewer technology transfers since much of the equipment and infrastructure for logging is in place. As well, ODA is linked less to commercial logging operations, and now focuses on large-scale timber plantations, processing technology transfers, and to a lesser extent conservation and forest regeneration projects. Yet key characteristics of Japan's shadow ecology -- low consumer prices, wasteful consumption, and import tariffs -- have remained essentially unchanged. Whereas in the 1960s and 1970s Japanese companies purchased huge quantities of cheap logs and turned them into disposable *kon pane*, today, after imposing onerous import duties, Japan consumes large amounts of cheap Indonesian plywood, again mostly as *kon pane*. While *kon pane* are now reused slightly more than in the past, they are still a remarkably wasteful drain on tropical forests. In short, despite a decline in investment and technology transfers, and limited changes to ODA projects, Japan's shadow ecology continues to expedite unsustainable timber management.

This chapter is divided into three parts. First, I outline

traditional Indonesian patron-client relations, explaining how these have evolved in the twentieth century, and now shape the New Order government under President Suharto. Second, I analyze how extensive 'modern' ties between state patrons and business clients distort state timber policies and undercut state enforcement. I examine selective logging rules, the distribution of timber concessions, tax and royalty regulations, reforestation and conservation policies, foreign investment guidelines, and policies to promote plywood and pulp and paper mills. In the final section, I explore the impact of Japan's shadow ecology on timber management over the last three decades. I document changes to ODA projects, corporate investment, technology transfers and wood imports since the early 1980s. I then analyze the environmental and economic impact of Indonesia's log export ban and the subsequent increase in Japanese plywood imports.

TRADITIONAL AND MODERN PATRON-CLIENT RELATIONS IN INDONESIA

Traditional Javanese patron-client relations are dyadic, vertical, personal, unequal, and reciprocal.⁵ Patrons tend to inherit clients rather than building these ties based on personal achievements. These ties involve more than simply "exchanging rewards for services" and do not "involve calculation of immediate

⁵Even though most of Indonesia's commercial timber is on the outer islands, since the Javanese dominate state positions, I focus on Javanese patron-client relations. Due to lack of space and resources, I am forced to assume that patron-client ties are also a key feature of other ethnic groups in Indonesia.

personal interests by the follower."⁶ Patrons are "expected to serve as provider, protector, educator, and source of values...In turn, the follower is expected to reciprocate by volunteering his labour, his vote, and in some cases even his life although these obligations are seldom explicit either when incurred or called due."⁷ Clients feel a strong sense of loyalty that transcends monetary debts and specific requests, and that can be passed down through generations. Patrons also feel a strong moral obligation to protect and support their clients. Finally, there is an "aura of absolutism" surrounding a traditional patron which contributes to reflexive obedience,⁸ making these relations fairly predictable and stable.

Traditional patron-client ties still exist in Indonesia, particularly in rural areas. However, colonialism, the gradual dominance of market exchange, the growth of the state and its increasing control over economic development, internal upheavals (such as the fight for independence and the 1965 coup attempt), and migration from rural villages to large cities have shattered many traditional ties. In most instances, these have reconfigured to form 'modern' patron-client links. Although both traditional and

⁶Karl D. Jackson, "Urbanization and the Rise of Patron-Client Relations: The Changing Quality of Interpersonal Communications in the Neighbourhoods of Bandung and the Villages of West Java," in Jackson, and Pye, eds., Political Power and Communications, p.346.

⁷Karl D. Jackson, "The Political Implications of Structure and Culture in Indonesia," in Jackson and Pye, eds., Political Power and Communications, p.34.

⁸Jackson, "Urbanization," p.349.

modern patron-client relations are known as *bapak-anak buah* (literally, father-children), there are important distinctions. Karl Jackson documents the difference in patron-client ties between villagers, urbanites born in a village, and urbanites born in a city. He shows that as people migrate from villages, traditional patron-client relations dissolve. After relocating, new relations develop as people struggle to improve their living standard. These modern ties are rooted in traditional relations but are "more limited, instrumental, opportunistic, specialized, achievement-based, and focused on the recent present rather than the distant past."⁹

Compared to traditional relations, modern ties tend to have weaker feelings of loyalty and obligation, although there is still a "debt of moral obligation," or *hutang budi*, "extending beyond the purely monetary aspect of the debt." In modern relations, however, "the lengths to which the individual will go to pay back *hutang budi* are much more limited." For modern links, a patron's power is closely related to "his own resources, official position, or his hold over specialized knowledge," while "noble birth" or "good family," though still useful, are less important.¹⁰ As well, modern patron-client ties are far more likely to revolve around material exchanges. Clients tend to calculate the costs and

⁹Ibid., p.344. My terminology differs slightly from Jackson. He calls 'traditional patron-client relations,' 'traditional authority relations,' and 'modern patron-client relations,' either 'patronage' or simply 'patron-client relations.' Our meanings, however, are essentially identical.

¹⁰Ibid., p.349, and p.350.

benefits of their participation. If better opportunities arise a client may well abandon their patron and join another patronage network. In some cases, clients attach themselves to more than one patron, making it easier to change allegiances as political tides shift. Patrons are also more willing to dispose of individual clients, particularly if the behaviour of a client is undermining the power or prestige of the leader or the group as a whole. For this reason, modern ties last for shorter periods than traditional ties, and are unlikely to transfer across generations. Unlike in traditional villages, shifting patron-client networks create an uncertain and unpredictable atmosphere. Patrons can never be assured of a loyal following and clients can never be confident of their patron's protection. This uncertainty is aggravated by the unwieldy size of many modern patron-client networks, by networks that extend beyond organizational or geographic boundaries, and by people who migrated to cities as adults and are not well integrated into patron-client units.¹¹

Despite these contrasts, modern and traditional patron-client relations have important similarities. In both, links are vertical and asymmetrical. A patron fuses together a heterogeneous group of individuals with complementary abilities, with divergent ideological beliefs, and with different ethnic and social backgrounds. As Jackson notes, a "truly powerful patron is one who has the capacity to concentrate within his circle clients of

¹¹Jackson, "Urbanization," *passim*, although see in particular, p.390.

varying intellectual, social, official, and financial resources, thus making this person the vital connecting link in the exchange pattern animating the circle."¹² A patron is clearly more powerful than any individual client, though successful patrons must conscientiously maintain their client base. Modern patron-client ties also remain essentially personal, informal, and noncontractual. Patrons supply clients with licences, jobs, and political protection, or allow clients to ignore laws and regulations, in exchange for immediate or future gifts, money, loyalty, or support. Modern patrons are also expected to perform some traditional duties, including advice "on ideological, personal, religious, and mystical matters."¹³

PATRON-CLIENT TIES AND THE INDONESIAN STATE

The use of public office to reward clients has strong cultural and historical roots in Indonesia. State patronage was pervasive in the precolonial and colonial era.¹⁴ After independence from the Dutch, patronage expanded with the growth of the state -- especially under Sukarno's Guided Democracy (1958-65). As

¹²Jackson, "Bureaucratic Polity," p.3.

¹³Ibid., p.14. For further details on traditional and modern patron-client relations in Indonesia, see Karl D. Jackson, Traditional Authority, Islam, and Rebellion: A Study of Indonesian Political Behaviour (Berkeley: University of California Press, 1980), especially Chapter 8.

¹⁴I assume that the values and customs of precolonial Indonesia have important implications for current practices. For a supporting view, see Harry J. Benda, "Democracy in Indonesia," in Anderson and Audrey, eds., Interpreting Indonesian Politics, pp.13-21.

G. McGuire and B. Hering note, "all ruling groups in Indonesia's history" have dispensed patronage. "Indeed the ability to do so is considered an example of one's status and personal skill."¹⁵ Traditional village values and roles in Java, where leaders function as community patrons, have had important implications for the behaviour of state administrators. It has meant that "for the villager who rises to the level of district or subdistrict officer today, traditionally accepted behaviour and values suddenly become legally corrupt behaviour and values."¹⁶ As a result, the legal definition and cultural understanding of 'corruption' differ.¹⁷

Of course, not all political action and inaction in Indonesia can be explained by the impact of patron-client relations. Religion can be an important factor. While 90 percent of the population is officially Muslim, the deep cleavage between orthodox (*santri*) and syncretistic (*abangan*) Muslims can have explosive implications. There are also sharp differences within the orthodox Muslim community. The ethnic and regional composition of Indonesia

¹⁵G. McGuire and B. Hering, "The Indonesian Army: Harbingers of Progress or Reactionary Predators?" in Christine Doran, ed., Indonesian Politics: A Reader (North Queensland: James Cook University, 1987), p.211.

¹⁶Theodore M. Smith, "Corruption, Tradition, and Change," Indonesia, no. 11 (April, 1971), pp.25-26.

¹⁷This helps explain why anti-corruption campaigns generally fail. Of course, as one would expect in any diverse society, some Indonesians -- especially university students -- are quite critical of rampant legal violations.

is another significant factor that shapes political interaction.¹⁸ In a population of around 180 million, there are more than 300 different ethnic groups and 250 languages spread across a plethora of islands. Sixty percent of the population lives on Java, which represents only 7 percent of the land. Yet the Javanese dominate top political, military, and bureaucratic positions,¹⁹ while Indonesian-Chinese, who comprise only 5 percent of the population, control much of the business world.²⁰ Certain cultural norms also shape political decisions. A respect for age and seniority, an emphasis on deference and self-control, and a desire for consensual decision making contribute to policies that reflect elite preferences. Elite attitudes also have important ramifications. Western-educated bureaucrats often have a decisive impact on the content of current policies, and are instrumental in developing the Five Year Plans (*Repelita*). These technocrats tend to support rapid economic growth at all costs. As a result, policies like conservation, reforestation and environmental management are low

¹⁸For a discussion of the impact of cultural cleavages on Indonesian politics, see Donald K. Emmerson, Indonesia's Elite: Political Culture and Cultural Politics (Ithaca: Cornell University Press, 1976).

¹⁹For example, around 75 percent of key positions in the military are held by Javanese. Leo Suryadinata, Military Ascendancy And Political Culture: A Study of Indonesia's Golkar (Ohio: Ohio University Center for International Studies, 1989), p.1.

²⁰A 1989 survey showed that 163 of the top 200 Indonesian firms are controlled by ethnic Chinese. MacIntyre, Business and Politics, p.263, footnote 19.

priorities.²¹

Despite the obvious relevance of religion, ethnicity, language, regional diversity, culture, and attitudes for understanding Indonesian politics, focusing on patron-client relations reveals key features of the current Indonesian state. Patron-client relations permeate and tie together the political executive, the legislature, the military, the bureaucracy, the courts, and the business community. At the apex of politics, the battle for power is largely between "circles of high-ranking bureaucrats and military officers...held together by an elaborate system of personal ties and mutual obligations." To some extent these 'circles' are reinforced by family connections, friendships, ethnic backgrounds, religious views, and ideological positions. But the crucial glue is "patron-client bonds."²²

The New Order -- established after Sukarno was ousted from power in the mid-1960s -- is dominated by President Suharto (a former General), underpinned by the army, and steered by the bureaucracy.²³ The New Order government -- which arose partially as a reaction to the turmoil of the 1950s and 1960s -- has emphasized stability and national integration. President Suharto has gradually consolidated and centralized control, by eliminating

²¹For more detail on the impact of attitudes on forestry management, see Dauvergne, "The Politics of Deforestation in Indonesia," pp.506-507.

²²Jackson, "Bureaucratic Polity," p.14.

²³For a general overview of the New Order, see Michael R.J. Vatikiotis, Indonesian Politics Under Suharto (London: Routledge, 1993).

Communist party members, eradicating troublesome factions in the military, purging and streamlining the bureaucracy, placing strict controls on political parties, and sponsoring corporatist structures to organize social and economic groups. Suharto's control is reinforced by his authority to appoint cabinet members and regional governors, to proclaim laws, and to control the armed services. The People's Consultative Assembly (MPR) -- which under the 1945 Constitution is the highest authority and elects the President and Vice-President -- and the legislative House of Representatives (DPR) provide some legitimacy but no substantive checks on executive and bureaucratic decisions.²⁴ The ruling Golkar party -- under the firm grip of Suharto and the military -- controls the national and regional assemblies.²⁵ The two main opposition political parties -- the Partai Persatuan Pembangunan and the Partai Demokrasi Indonesia -- do not pose a serious challenge. The power of regional governments is limited by lack of revenues and close supervision from Jakarta.²⁶ In the early 1980s,

²⁴See David McKendrick, "Indonesia in 1991, Growth, Privilege and Rules," Asian Survey 32, no. 2 (February 1992), p.108. According to MacIntyre, DPR committees have some influence. MacIntyre, Business and Politics, pp.31-35. There are some signs that the DPR is becoming more important. See John McBeth, "Loyal House: But Parliament is becoming more animated," FEER, 8 September 1994, pp.32-34.

²⁵For a study of Golkar, see D. Reeve, Golkar of Indonesia: an Alternative to the Party System (Singapore: Oxford University Press, 1985).

²⁶Army personnel have not been placed at the village level. But these officials sometimes receive military training, and their loyalty is monitored. Donald Emmerson, "The Bureaucracy in Political Context: Weakness in Strength," in Pye and Jackson, eds., Political Power, pp.103-104.

many provinces received up to 90 percent of their revenue from central grants. Interest groups, the media, students, NGOs, and the general public also have little input or influence on policy formulation.²⁷ With firm control, in 1993, Suharto was easily elected for a sixth five-year presidential term.²⁸

Despite Suharto's undeniable power, Indonesia is not a one-man state. Suharto needs the support of influential military generals and top bureaucrats. As Dwight King notes, "most observers would agree that Suharto's leadership style has been deliberate, predictable and, above all, consultative. Key policy decisions seem far more the product of a military-technocrat oligarchy than the discretion of a military dictator."²⁹ Although coercion has been indisputably important, Suharto has maintained loyalty in part through judicious distribution of patronage. He has built a powerful group of followers, including key political, military, business, bureaucratic, and regional leaders. This patron-client network is the nucleus of power and the bastion for elite stability.

Suharto's family is at the centre of this network. His relatives -- first his wife and half-brothers and now his six

²⁷Measures have been taken to control the political influence of these groups. University student organizations were banned in the late 1970s. The 1985 Law on Social Organizations (Ormas) severely restricts the activities of NGOs. The media is regularly censored and many newspapers and magazines have been closed for being too critical of the government.

²⁸For details, see Henny Sender, "New Boys' Challenge," FEER, 1 April 1993, pp.72-75.

²⁹King, "Indonesia's New Order," p.108.

children and their affiliated companies -- have received key government licences, monopolistic contracts, and crucial access to the corridors of power, enabling them to build substantial fortunes.³⁰ Even state bank loans are often underpinned by personal connections, not by collateral or persuasive investment proposals.³¹ Although President Suharto avoids any direct role in business, according to one foreign businessman: "You cannot get involved in an important deal any more if you don't bring in at least one of the children."³² An academic claims: "At least 80 percent of major government projects go in some form to the President's children or friends."³³ Suharto has also used patronage to placate and integrate potential rivals. As Harold Crouch notes, after gaining control in the mid-1960s, "Suharto rewarded his key supporters handsomely; but he was careful not to antagonize unnecessarily those who had lost in the inter-group struggles: many losers were also compensated with appointments and opportunities."³⁴ As well, he has allowed key military and bureaucratic leaders to establish their own clientele, and has

³⁰See "In Suharto's shadow," Economist, 9 May 1992, pp.33-34; and Adam Schwarz, "All is relative," FEER, 30 April 1992, pp.54-58.

³¹Interview, Environmental consultant, Bogor Indonesia, 24 February 1994.

³²Adam Schwarz, "All is relative," FEER, 30 April 1992, p.54.

³³Steven Erlanger, "For Suharto, His Heirs are Key to Life After '93," The New York Times International, 11 November 1990, p.Y11.

³⁴Crouch, "Patrimonialism," p.578. Also see Herbert Feith, "Political Control, Class Formation and Legitimacy in Suharto's Indonesia," in Doran, ed., Indonesian Politics, pp.221-234.

permitted pervasive patron-client exchange at the middle and lower levels of the state. By partially redistributing the benefits of rapid economic development and oil exports, these extensive patron-client networks have enhanced stability, created a powerful group with a vested interest in the status quo, and bolstered Suharto's legitimacy.³⁵

To some extent, the legitimacy of Indonesian state leaders is not connected to obeying laws and procedures but to using their position to reward followers. As Jackson points out, "social injustice and corruption are felt only if a patron fails to redistribute his bounty among his clients or if the patron in adapting to market pressures abandons [his] diffuse responsibilities."³⁶ For this reason, Suharto's overt use of political power to enhance the fortunes of his clients, family and friends has strengthened his grip rather than undermined his

³⁵Rapid economic growth and oil exports have been vital for the stability of the New Order. Crouch argues that with "huge sums available for patronage distribution, the regime was in a position to reward its supporters royally; at the same time it could make dissidence very costly for its critics." Harold Crouch, The Army and Politics in Indonesia, revised edition (Ithaca: Cornell University Press, 1988), p.355. Writing in the early 1970s, W.F. Wertheim argued that under Suharto, patron-client relations were eroding, especially at the lower levels of society. He predicted that insurgency and revolution similar to China's would occur unless the government implemented radical land reform. In my view, part of the reason for his inaccurate forecast is that patron-client links which cut across and weaken class ties have not diminished but have flourished. For a discussion of Wertheim's work, see Feith, "Political Control," pp.229-231.

³⁶Jackson, "The Political Implications," p.36.

legitimacy.³⁷ This helps explain why Suharto is "undefensive about his position and the activities of his children" and why he "will easily move from a conversation about macroeconomic policy to one about a contract or a regulation affecting" one of his followers.³⁸ This also helps explain why Suharto has not become directly involved in business operations and has avoided lavish displays of personal wealth. As was evident with Sukarno, this kind of behaviour is seen as irresponsible and 'corrupt' and contributes to a loss of legitimacy in the eyes of the ruling elite.

CHINESE BUSINESS CLIENTS

Links between powerful state patrons (mainly Javanese) and Indonesian-Chinese business clients (*cukongs*) are a dominant feature of the New Order.³⁹ Compared to ties between Javanese, these connections are less likely to have strong bonds of loyalty and honour and more likely to be held together by mutual need and a mutual desire to make money. Political and military patrons supply credit, contracts, licences, access, and protection while

³⁷Privately, some officials do criticize the extensive business links to Suharto's children. Donald K. Emmerson, "Indonesia in 1990: A Foreshadow Play," Asian Survey 31 (February 1991), p.185. As well, orthodox Muslims have been critical of his close ties to Chinese corporations.

³⁸Steven Erlanger, "For Suharto, His Heirs are Key to Life After '93," The New York Times International, 11 November 1990, p.Y11.

³⁹Richard Robison, "Toward A Class Analysis of the Indonesian Military Bureaucratic State," Indonesia, no. 25 (April 1978), pp.17-39. For even greater detail, see Richard Robison, Indonesia: The Rise of Capital (Australia: Allen and Unwin Pty Ltd., 1986).

Chinese clients provide vital expertise and capital to operate a business.⁴⁰ Chinese clients also provide crucial access to markets and funds through Chinese contacts in Singapore and Hong Kong. Even though both sides clearly benefit, this relationship is not equal. Indonesian-Chinese are in a subordinate position and are vulnerable to political shifts and societal backlash. As Ernst Utrecht explains, "the *cukong* is a so-called 'back-door broker, because often strong anti-Chinese sentiments within society have prevented even Jakarta generals receiving Chinese business associates through the front-door of office or home."⁴¹ Although most Indonesian-Chinese have been in Indonesia for generations, speak Indonesian, and even have Indonesian sounding names, there is strong prejudice against this group. Despite the stability of the New Order, there are clear signs of hostility and racism, especially against the increasingly visible and prosperous Chinese middle-class.⁴² Due to pervasive racism, according to Go Gien Tjwan, "today's Indonesian society is not attractive enough for many *Peranakan* Chinese [people of Chinese ancestry born in

⁴⁰As attitudes change, and business is no longer perceived as a lower class activity, "a number of fairly large *pribumi* [indigenous or non-Chinese] Indonesian businesses have developed, particularly those with connections to the presidential family." MacAndrews, "Politics," p.372.

⁴¹Ernst Utrecht, "Indonesia's Foreign Private Corporate System, Past and Present," in Doran, ed., Indonesian Politics, p.184.

⁴²Two examples are: the anti-Chinese focus of the 1974 riots following Japanese Prime Minister Tanaka's visit to Jakarta; and the Chinese pogroms in Central Java in 1980. Over the past six years, the Islamic revivalist movement has rekindled anti-Chinese feelings. John McBeth, "Challenges of Progress," FEER, 28 April 1994, p.46.

Indonesia] to wholeheartedly become a participant in it."⁴³ The subordinate status and vulnerability of Indonesian-Chinese business leaders is manifested in most wealthy Chinese channelling profits outside the country, not only to avoid royalties and taxes, but also for personal security.

Since Suharto consolidated and centralized control, patron-client networks at the top of the state have been fairly stable. But there is still a sense of uncertainty. Chinese business clients are wary of sudden racial backlashes. The fall of Sukarno and the purge of many of his followers is also an important reminder of the tenuous nature of these ties. After Suharto steps down or dies in office, patron-client networks connected to his reign may well be pushed aside or eliminated. For members of patron-client groups grazing on state coffers, especially Chinese clients, this creates a continual sense of unease despite the stability of the New Order.

MILITARY

The military is the cornerstone of the New Order. The military establishment maintains it should have a central political role, and military officers hold key political, bureaucratic and corporate posts.⁴⁴ Yet the military does not dominate political decisions. Suharto has been careful to appease and coopt powerful

⁴³Go Gien Tjwan, "The Chinese in Indonesia, Past and Present," in Doran, ed., Indonesian Politics, p.93.

⁴⁴See Harold Crouch, "Generals and Business in Indonesia," Pacific Affairs 48, no. 4 (Winter 1975-76), pp.519-540.

military generals. As well, to hinder alternative power centres from coalescing in the military, he has reorganized the armed services, rotated regional commanders, and encouraged early retirements. As Donald Emmerson notes, "the price of outspoken independence, several generals have discovered, is an ambassadorship."⁴⁵ Suharto has also prevented the emergence of powerful military successors. Crouch argues that in the 1980s, "like the traditional Javanese sultans who kept rival groups of courtiers in balance, Suharto made sure that no single group of officers gained a position from which they could challenge his rule and that no single, clear-cut candidate for the succession emerged."⁴⁶ As a result of this prudent management of the military, the New Order government "has become the master rather than the servant of the military establishment."⁴⁷

Military links to local business grew in the early 1950s as civilian cabinets reduced the military budget. According to Ruth McVey, as the army's income fell, "regional commanders began to make deals with local business interests which enabled them to

⁴⁵Emmerson, "The Bureaucracy," p.104.

⁴⁶Crouch, The Army and Politics, p.357.

⁴⁷Jackson, "Bureaucratic Polity," p.13. Also see Ulf Sundhaussen, "The Military: Structure, Procedures, and Effects on Indonesian Society," in Jackson and Pye, eds., Political Power, pp.45-81. In the last three years, the number of cabinet members with military background has declined, and now most of the 27 provincial governors are civilians. One study showed that "from a peak of 25,000 in 1967, officers seconded to *dwi-fungsi* [dual function] positions had dropped to 13,000 in 1986 and to about 9,500 by 1992." John McBeth, "Challenges of Progress," FEER, 28 April 1994, p.46.

support their troops and preserve the loyalties of their subordinates. This gave them a financial base independent of the centre."⁴⁸ Army interference and participation in business continued to increase during the chaotic years of Guided Democracy. By the time Suharto and the army secured power in the mid-1960s, the weak economy and fragmented administration convinced the new government that "it had little prospect of raising adequate funds for the armed forces through taxation."⁴⁹ To maintain a stable and loyal military, and to compensate for budget and personnel cutbacks, the New Order government has allowed, even encouraged, the old practices of military officers raising revenue through business connections and patron-client exchange.⁵⁰ Patron-client relations within the military also have important consequences. The army hierarchy is split between managers who occupy key administrative posts or operate trading companies and field officers who are responsible for security. These managers often supply money to field officers for protection, contributing to a need for managers to become involved in 'illegal' activities.⁵¹

⁴⁸Ruth McVey, "The Post-Revolutionary Transformation of the Indonesian Army Part I, Indonesia 11-12 (1971), pp.152-153, quoted in McGuire and Hering, "The Indonesian Army," p.209.

⁴⁹Crouch, "Generals and Business in Indonesia," p.523.

⁵⁰Ibid., pp.523-524. As a result of this strategy, officers have prospered in the New Order far more than the lower ranks. Ernst Utrecht, The Indonesian Army (Townsville, 1980), pp.100-101. For details on the military's involvement in business, see Robison, Indonesia: The Rise of Capital, chapter 8.

⁵¹Utrecht, The Indonesian Army, p.103.

BUREAUCRACY

Suharto has purged and pared down the bureaucracy, increased salaries, and made administrators more active. To increase loyalty and control, he has placed military officers in strategic positions.⁵² By the mid-1980s, about sixty percent of senior bureaucrats in Jakarta had military backgrounds.⁵³ To undermine competing political allegiances, Suharto used to require bureaucrats to join Golkar. Despite Suharto's moves to 'backbone' the bureaucracy with loyal military officers and curtail political activities, civilian bureaucrats have still had significant influence. Jackson claims that "the ideas of the civilian technocrats have probably had more impact on policy in Indonesia than in almost any other country in the Third World."⁵⁴

At all levels, the bureaucracy is perforated by patron-client ties.⁵⁵ At the top, informal networks connect senior bureaucrats to powerful military officers, prominent politicians, and wealthy business leaders. At the middle and lower levels, patron-client networks also operate within departments, between different departments, and between departmental officials and powerful political, military, and business leaders. As a result, a

⁵²Emmerson, "The Bureaucracy," pp.82-83, pp.90-91, p.100.

⁵³Colin MacAndrews, "The Structure of Government in Indonesia," in Colin MacAndrews, ed., Central Government and Local Development in Indonesia (Oxford: Oxford University Press, 1986), p.33.

⁵⁴Jackson, "Bureaucratic Polity," p.13.

⁵⁵See Loekman Soetrismo, "Patron-client relationships," Review Indonesia, no. 98, 26 February 1994, p.18.

bureaucrat's power and status are often not related to his or her position, but to connections. According to McVey, "a powerful patron will have clients in several ministries or armed units; his true strength as an official will depend on his personal connections and the access his position provides to wealth." For this reason, successful officials use "the economic possibilities of [their] position to the full."⁵⁶

While the principal goal of intrabureaucratic patron-client clusters and networks is to preserve or enhance power and wealth, these groups also have organizational and policy aims. Prevalent patron-client ties do not always prevent organizational effectiveness. However, particularly when resources are scarce, personal interests tend to override organizational objectives -- the financial collapse of the national oil company Pertamina and the failure of the agency for rice stabilization (BULOG) are two well known cases from the 1970s. In both instances, "the directors of the agencies and the long chains of clients extending downward from the directors' closest confidants...prospered while the organizational objectives...faltered."⁵⁷ The dominance of particularistic, rent-seeking aims of patron-client groups over organizational objectives also contributed to the fall of Sukarno.

⁵⁶Ruth T. McVey, "The Beamtenstaat in Indonesia," in Anderson and Kahin, eds., Interpreting Indonesian Politics, p.88.

⁵⁷Jackson, "Bureaucratic Polity," p.15. For details on Pertamina, see Sundhaussen, "The Military," pp.53-54; and Emmerson, "The Bureaucracy in Political Context," pp.112-116. For details on BULOG (Logistics Board), see Bruce Glassburner, "Indonesia's New Economic Policy and Its Sociopolitical Implications," in Jackson and Pye, eds., Political Power, pp.147-149.

According to Jackson, "in almost all organizations at the close of Guided Democracy there were no slack resources whatever, and the satisfaction of personal or group objectives precluded the accomplishment of almost all organizational ends."⁵⁸ While Pertamina and the rice agency are exceptions, since the late 1960s, foreign investment and loans, massive exports of raw materials (especially oil), and manageable rates of inflation have provided the "slack that has allowed less than optimally efficient organizations to perform effectively."⁵⁹ Yet the New Order bureaucracy is clearly more effective in some areas than in others. As we will see later, in the case of timber management, close ties between patron-client networks and timber licences, concessions, and profits has debilitated the state's ability to monitor and enforce management regulations.

JAPAN AND PATRON-CLIENT RELATIONS

While Japanese corporate executives sometimes bribe state officials, this is not in the context of long-term patron-client exchange relations.⁶⁰ According to Utrecht, Japanese investors prefer to use Chinese brokers in Hong Kong and Singapore to avoid

⁵⁸Jackson, "Bureaucratic Polity, p.15.

⁵⁹Ibid., p.16. Crouch argues that foreign aid and investment and rising oil prices have provided critical funding for massive state patronage and regime stability. Crouch, "Patrimonialism," pp.178-179.

⁶⁰For a discussion of Japanese corruption in Indonesia, see Yoko Kitazawa, "Japan-Indonesia Corruption," AMPO 8, no. 1 (1976), part I and part II.

incredibly 'corrupt' Indonesian (especially non-Chinese) businessmen.⁶¹ Nevertheless, Japanese money has had a significant impact on patron-client ties. Since the late 1960s, aid, investment, and resource purchases have supplied key funds to fuel ubiquitous patron-client exchanges. According to a 1980 AMPO study, "Japanese capital promotes bribery and corruption in Indonesia and encourages the formation of a comprador bourgeoisie that is in collusion with high government officials, the military and overseas Chinese."⁶²

SOCIETAL STRUCTURE AND POLICY IMPLEMENTATION

Modern and traditional patron-client ties in Indonesia disperse power; society is not a pyramid where all power flows to a peak. Instead of a single pyramid, there are separate hierarchies in regions, provinces, and villages. Even at the 'bottom' there are "complex pecking orders" and "a little power goes a long way."⁶³ Society can be conceived in Migdal's terms as a web of patron-client links or in Jackson's terms as "an extremely complex molecule in which the different atoms have their separate nuclei and their circling electrons, but the bonds between the atoms can often be very weak and, indeed, many atoms have no bonds

⁶¹Utrecht, "Indonesia's Foreign," p.184.

⁶²AMPO: Japan Asia Quarterly Review 12, Special Issue on "Japanese Transnational Enterprises in Indonesia," no. 4, (1980), p.49.

⁶³Rush, The Last Tree, p.35.

between them at all."⁶⁴ This societal structure has important implications for policy implementation. While policy development is dominated by a small elite, subsequent rules must be filtered through multiple layers of patron-client clusters and networks. As policies are implemented, and work their way from the insulated departments in Jakarta to the remote outer islands, state patrons make particularistic concessions to their clients. If these modifications were isolated, they would have little overall impact. But taken as a whole they debilitate state capacity, and the actual effect of policies often bears little resemblance to the original content outlined in Jakarta.⁶⁵

In sum, decisions and policies in the New Order are dominated by the state -- in particular, President Suharto, the military, and the bureaucracy. Parliament, political parties, interest groups, the media, students, and academics are peripheral. Business has more influence, though this is constrained by pervasive anti-

⁶⁴Jackson, "The Political Implications," p.35.

⁶⁵Poor policy implementation is reinforced by a cultural suspicion of action. Jackson argues that "as designing plans is relatively passive while implementation requires action, attention and high status go with the former rather than the latter. Progress in bureaucracies is often impressive until the moment when implementation is required." Ibid., p.39. An example is the 1982 Environmental Management Act which contains an impressive set of principles. There are, however, still no implementing regulations. According to MacAndrews, "Without these regulations, cases taken to court under this Act have often been dismissed for lack of an adequate legal basis." MacAndrews, "Politics of the Environment," p.379, footnote 16.

Chinese sentiments.⁶⁶ Yet, even though the state excludes societal input into policy formulation, extensive patron-client ties among the political elite, in the military, in the bureaucracy, and between members of these institutions and business, regional, and community leaders have a profound impact on the implementation of policies. For the management of timber, these ties drive destructive practices and undermine state capacity to implement policies.

PATRON-CLIENT POLITICS AND TIMBER MANAGEMENT IN INDONESIA

Background

Under the 1945 Constitution, all primary forests in Indonesia are owned by the state. The 1967 Basic Forestry Law is the foundation for forestry regulations. The total land area of Indonesia is about 190 million hectares. Officially, Indonesia has 143 million hectares of forests, mainly on the outer islands.⁶⁷ Conservation areas, such as National Parks and Wildlife Reserves, cover 19 million hectares. Another 30 million hectares are set aside as Protection Forest, mostly for soil and water conservation.

⁶⁶See MacIntyre, Business and Politics, p.3. He argues that business leaders have had greater leverage over policy formulation since the mid-1980s, partially due to more *pribumi* Indonesian businesses. MacIntyre focuses on legislation -- on the content of policy. He examines how business groups have fought to overturn regulations (e.g., spinning industry), have resisted the introduction of specific measures (e.g., pharmaceutical industry), and have attempted to convince the state to introduce legislation (e.g., insurance industry). He does not, however, look closely at problems with enforcement, where businesses simply ignore or skirt regulations and laws.

⁶⁷Around 82 million hectares are rain forests.

A further 30 million hectares are Conversion Forest, areas designated for conversion to agriculture, settlements, and plantations, often after logging. The remaining 64 million hectares are Production Forest, accounting for about 60 percent of legal commercial timber in Southeast Asia. Production areas are supposed to be managed sustainably, mostly by selective cutting in primary and secondary forests.⁶⁸ Numerous observers claim official forestry statistics are inaccurate. A 1990 fine-resolution mapping project estimated total forest cover at 108 million hectares. A 1990 World Bank study estimated total forest area at 100 million hectares.⁶⁹ The radical Indonesian NGO group SKEPHI (Network for Tropical Forest Conservation) is even more pessimistic, claiming

⁶⁸This data was supplied by a Professor at Bogor Agricultural University, Faculty of Forestry, Bogor Indonesia, 25 February 1994. These figures are essentially the same as those used by the Ministry of Forestry. For government forestry data, see Indonesian Ministry of Forestry, Indonesia and the Management of its Forests (Jakarta: Republic of Indonesia, 1992); Indonesian Ministry of Forestry, The Timber Industry in Indonesia (Jakarta: Republic of Indonesia, 1992); Indonesian Ministry of Forestry, The Indonesian Tropical Rain Forest Conservation Areas (Jakarta: Republic of Indonesia, 1990).

⁶⁹Both these estimates are cited in WALHI (Indonesian Forum for the Environment) and YLBHI (Indonesian Legal Aid Foundation), Mistaking Plantations For The Indonesia's Tropical Forest, (Jakarta: Wahana Lingkungan Hidup Indonesia [WALHI], 1992), p.11. Also see Sandra Moniaga, "Status of Forest Resources in Indonesia, in JANNI, Reshaping "Development": Indonesia-Japan Relation from Grassroots' Perspective, Proceedings of the INGI Kanagawa Symposium (Tokyo: Japan NGO Network on Indonesia [JANNI], 1993), pp.39-42. For a range of estimates, see Jill M. Blockhus, Mark R. Dillenbeck, Jeffrey A. Sayer and Per Wegge, eds., "Conserving Biological Diversity in Managed Tropical Forests," Proceedings of a Workshop held at the IUCN General Assembly Perth, Australia, 1990. (Gland: IUCN/ITTO, 1992), pp.45-46.

only 90 million hectares of forest remain.⁷⁰ Even a government economist at the National Planning Agency estimated Indonesia's actual production forest area is only 32 million hectares, half the official figure.⁷¹

Numerous bureaucratic departments shape the environmental management of timber concessions. The Ministry of Forestry -- with a staff of 50,000 -- is responsible for collecting taxes and royalties, setting annual allowable harvests, enforcing cutting and silvicultural guidelines, and monitoring timber regulations.⁷² The Ministry of Industry promotes the economic development of forest resources. This ministry has been a key force behind the development of wood processing. In 1978, the government formed the State Ministry for Development Supervision and Environment, later renamed the State Ministry for Population and the Environment, and now called the State Ministry for the Environment. This Ministry coordinates environmental management across departments, advises departments on environmental issues, evaluates the environmental impact of logging proposals, and monitors reforestation sites. Other departments and ministries also influence forest management, including Finance, Trade, Agriculture, Transmigration, Public

⁷⁰SKEPHI, Forest Management Is Inefficient, Position Paper For Austria Parliament (Jakarta, SKEPHI, 1993), p.2.

⁷¹Summarized in Rush, The Last Tree, p.36.

⁷²In 1983, the Directorate-General of Forestry of the Ministry of Agriculture became a ministry and was named the Ministry of Forestry.

Works, and Energy and Mines.⁷³

POLITICIANS, PATRONAGE, AND CHINESE TIMBER CLIENTS

Approximately 500 concessionaires, under the control of about 50 conglomerates, have licences to log more than 60 million hectares of Production Forests. Between 1989 and 1994, average annual legal timber production was over 30 million cubic metres. Concession holders log around 800,000 hectares a year, more than the rest of Southeast Asia combined.⁷⁴ Already by mid-1990, 25 million hectares had been logged.⁷⁵ About two-thirds of logging conglomerates are controlled by Chinese-Indonesians. Non-Chinese timber businesses are limited mainly to local companies. Chinese companies, however, must rely on politicians for concessions and licences, on military officers for protection, and on bureaucrats for 'flexible' interpretation of management rules. Among Indonesian-Chinese timber leaders, Bob Hasan is the most powerful figure.⁷⁶ He is the head of four trade associations, including

⁷³See Malcolm Gillis, "Indonesia: public policies, resource management, and the tropical forest," in Malcolm Gillis and Robert Repetto, eds., Public Policies and the Misuse of Forest Resources (Cambridge: Cambridge University Press, 1988), pp.50-51; and Malcolm Gillis, "Multinational Enterprises and Environmental and Resource Management Issues in the Indonesian Tropical Forest Sector," in Charles S. Pearson, ed., Multinational Corporations, Environment, and the Third World (Durham: Duke University Press, 1987), pp.76-78.

⁷⁴Raphael Pura, "Rapid Loss of Forest Worries Indonesia," The Asian Wall Street Journal (hereafter AWSJ), 3 February 1990, p.10.

⁷⁵WALHI and YLBHI, Mistaking, p.12.

⁷⁶For an interview with Hasan, see John Vidal, "High stakes in the rainforest," The Guardian, 19 October 1990.

Apkindo, the Wood Panel Association that controls the plywood industry. One forestry official aptly declared: "The forestry department cooperates with Apkindo, but Apkindo really makes policy."⁷⁷ Hasan's power stems from his direct link to Suharto.⁷⁸ Hasan -- who has the rights to log 2 million hectares -- and President Suharto have had close ties since the late 1950s. According to one insider, Hasan is the de facto Minister of Forestry -- the formal Minister of Forestry or the State Minister of the Environment can only challenge him to a limited degree.⁷⁹

Asia's largest timber operator is Prajogo Pangestu, a second generation Indonesian-Chinese from Kalimantan. His main company is P.T. Barito Pacific Timber.⁸⁰ Like Hasan, Prajogo has close, personal ties to Suharto.⁸¹ Prajogo's timber concessions cover 5.5 million hectares -- the size of Switzerland -- and he employs more

⁷⁷Adam Schwarz, "Timber troubles," FEER, 6 April 1989, p.86.

⁷⁸Interview, Senior official, Bappenas, Ministry of Planning, 4 March 1994.

⁷⁹This official claimed that Hasan is primarily motivated by a desire to build his 'empire', and although he sometimes sounds 'green', he has little concern for environmental issues. Confidential Interview, Senior Indonesian official, Jakarta, 3 March 1994.

⁸⁰For a critical account of Barito Pacific Timber, see SKEPHI, Setiakawan, no. 10, January-June, 1993, pp.53-55.

⁸¹A leaked 1991 memo from Prajogo to Suharto illustrates their close relationship. In this memo, Prajogo asked Suharto to encourage the Forestry Minister, Hasjruil Harahap, to "facilitate the paperwork and financing for an industrial-tree plantation in South Sumatra." According to FEER, Suharto responded by jotting a note to Harahap on the memo that "he should fulfil all of Prajogo's requests." Jonathan Friedland and Adam Schwarz, "Risks on Paper," FEER, 12 March 1992, p.44.

than 50,000 people. Prajogo is the world's largest exporter of tropical plywood, with annual sales around US\$600 million. The total value of Prajogo's forest land, logging infrastructure and plywood mills is US\$5-6 billion. His Barito Pacific Group of companies is also the largest borrower of state funds, with more than US\$1 billion in loans. In 1992, he received "an unusually attractive...debt rescheduling that stretched repayment periods on about US\$460 million in timber industry borrowings into the next century."⁸² He has recently established huge state-subsidized softwood plantations to supply a US\$1 billion pulp and paper mill. His partner is Siti Hardijanti Rukmana, Suharto's eldest child. Not surprisingly, Prajogo has made substantial 'donations' to charities and social programs connected to Suharto's family. Prajogo has also reportedly helped rescue poor investments linked to Suharto and the military.⁸³ Prajogo and his wife also conscientiously "nurture the relationship [with Suharto] with small gestures, such as gifts of home-cooked treats from Mrs. Prajogo's home province of North Sulawesi."⁸⁴

⁸²Raphael Pura, "Timber Tycoon Confronts His Critics," AWSJ, 27 August 1993, p.8.

⁸³Prajogo's timber holdings are discussed by Raphael Pura, "Timber Tycoon Confronts His Critics," AWSJ, 27 August 1993, p.1 and p.8; Raphael Pura, Stephen Duthi and Richard Borsuk, "Plywood Tycoon May Purchase Malaysian Firm," AWSJ, 3 February 1994, p.1 and p.4; and Adam Schwarz, "Forest Framework," FEER, 12 March 1992, p.44.

⁸⁴Raphael Pura, "Timber Tycoon Confronts His Critics," AWSJ, 27 August 1993, p.8.

MILITARY LEADERS AND TIMBER

In 1967, Suharto distributed timber concessions to reward loyal generals, appease potential military dissidents, and supplement the military budget. In 1978, the Department of Defense (Hankam) business group P.T. Tri Usaha Bhakti, along with regional military commands, controlled at least fourteen timber companies.⁸⁵ Today the military is still heavily involved in logging. For example, in East Kalimantan, the International Timber Corporation of Indonesia (ITCI), operates a 600,000 hectare concession, the largest in Indonesia. As well, by the year 2000, ITCI plans to develop 140,000 hectares of timber plantations. Fifty-one percent of this company is controlled by the armed forces.⁸⁶ Of the remaining shares, P.T. Bimantara Citra -- a conglomerate chaired by Suharto's second son, Bambang Trihatmodjo -- holds 34 percent while Hasan owns 15 percent. According to Hasan, the military uses its profits to augment its official budget and build houses for soldiers.⁸⁷ P.T. Yamaker -- which logs concessions in East

⁸⁵Robison, "Toward A Class Analysis," p.28. These companies were backed by Chinese and foreign funds.

⁸⁶In the early 1970s, ITCI's major shareholders included the most powerful generals of the New Order. According to Hurst, ITCI's concession was in effect a "pay-off from Suharto for the loyalty of Indonesia's military elite." Philip Hurst, Rainforest Politics: Ecological Destruction in South-East Asia (London: Zed Books, 1990), p.34.

⁸⁷Based on ITCI (International Timber Corporation Indonesia), PT. International Timber Corporation Indonesia (Jakarta: ITCI, 1992); Rush, The Last Tree, pp.36-37; Raphael Pura, "Rapid Loss of Forest Worries Indonesia," AWSJ, 3 February 1990, p.10; and Steven Erlanger, "For Suharto, His Heirs are Key to Life After '93," The New York Times International, 11 November 1990, p.Y11.

Kalimantan near the border with Borneo Malaysia -- is another timber company linked to the army. This is deemed necessary for security. Not surprisingly, with strong military protection, there is little bureaucratic supervision of logging in these remote areas. According to one insider, convoys of trucks smuggle illegal logs to Sabah.⁸⁸

Patron-client ties between state leaders and timber operators weaken state supervision of bureaucratic implementors and distort state management policies. In the last few years, state leaders have declared a crackdown on illegal loggers and tax evaders. Despite the rhetoric, however, the state has had minimal impact on corporate practices. Instead, top state patrons and powerful business clients continue to reap huge profits while middle-level state implementors continue to ignore state rules in exchange for bribes, gifts, and career stability. As we will see in the next section, the result is rampant illegal logging, timber smuggling, tax and royalty evasion, flagrant violations of logging rules, and avoidance of reforestation duties. As well, these patron-client ties have contributed to inappropriate and ineffective policies for plywood processing, foreign investment, conservation, and pulp and paper plantations.

⁸⁸Confidential Interview, Senior Indonesian official, Jakarta, 3 March 1994.

FORESTRY POLICIES AND PATRON-CLIENT POLITICS

A. Logging Rules and Concession Distribution

Until the late 1980s, Indonesian logging was regulated by the Selective Cutting System (TPI). This system divided concessions into 35 areas which were then logged annually on a 35 year cycle. Loggers were only allowed to cut trees with a diameter of 50 centimetres or more at breast height. As well, if less than 25 trees with a diameter between 25-49 centimetres remained in a logged hectare, companies had to do enrichment planting.⁸⁹ In 1989, the government established a new cutting policy -- called the Indonesian Selective Cutting and Replanting System (TPTI). Logging guidelines are essentially the same, although now loggers are required to replant commercial species. This current policy has made little difference. According to the NGO WALHI (Forum For the Environment) and the Indonesian Legal Aid Foundation, "it wasn't application of a faulty management system, but rather the failure to apply any management system which resulted in so much degradation. Although improving management policies is useful, in reality the key to better forest management is better implementation and tighter enforcement."⁹⁰ There are certainly problems with timber management rules. For example, while companies are allowed to log areas on a 35 five year cycle, licences are only granted for 20 years, with no guarantee of

⁸⁹For details on TPI, see Hurst, Rainforest, pp.16-17. For a critique of Indonesian selective logging rules, see Gillis, "Indonesia: public policies," pp.63-65.

⁹⁰WALHI and YLBHI, Mistaking, pp.59-60.

renewal. This obviously makes little sense.⁹¹ But in the context of Indonesian politics this discrepancy is not critical. Even if concession licences were granted for 100 years, it would make little difference since it is clear to loggers -- especially ethnic Chinese -- that a shift in political or military power could change the rules overnight.

Historical allocation of timber concessions contributes to current management problems. Starting in the mid-1960s, Suharto awarded concessions to numerous loyal military and political clients. In 1970, to quash provincial claims to timber areas Suharto had awarded as 'presents', the authority to distribute concessions was centralized under the Directorate-General of Forestry. As a result, small-scale loggers without Jakartan ties lost their concessions; many resorted to illegal logging. Jakarta-based concessionaires often had little forestry knowledge or capital, and turned to MNCs and Indonesian-Chinese companies to handle logging operations.⁹² This split between control of concessions and management of timber operations continues today, reducing accountability and transparency. According to Mariko Urano, "the increase in these absentee concessionaires has

⁹¹Barbier, Burgess, and Markandya, "The Economics of Tropical Deforestation," p.57.

⁹²Despite needing sub-contractors, concessions were still excellent 'presents' since profits were huge and fast. Interview, Bogor Agricultural University, Faculty of Forestry, Bogor Indonesia, 28 February 1994.

accelerated the rate of forest degradation."⁹³

In July 1994, Forestry Minister Jamaluddin Surjokusumo announced that annual timber harvests would be reduced to 22.5 million cubic metres by the year 1999.⁹⁴ But the state is unlikely to reach this target as informal connections between state implementors and corporate elite debilitate state enforcement and supervision of logging rules. As one observer notes, "in Indonesia, forestry law and management has been predicated on the efficacy of a strong State. The Indonesian government, however, has not been able to police its vast forest estate nor has it been capable of adequately enforcing its decrees."⁹⁵ Many forestry officers are reported to ignore logging violations in exchange for material rewards.⁹⁶ There are strong monetary incentives for enforcement staff to ignore logging violations. Forestry guards are paid between US\$15 to US\$20 per month to monitor an average

⁹³Mariko Urano, "Commercial Exploitation of Indonesian Tropical Forests by Japan," in JANNI, Reshaping "Development", p.50.

⁹⁴"Indonesia to reduce tree cutting to help preserve rainforests," The Japan Times, 27 July 1994, p.18.

⁹⁵Charles Zerner, Legal Options For The Indonesian Forestry Sector, (Jakarta: Ministry of Forestry, Government of Indonesia, and FAO, Indonesia UTF/INS/065/INS, Forestry Field Studies Field Document, No.VI-4, 1990), p.10.

⁹⁶Adam Schwarz, "Emerald Forest," FEER, 7 February 1991, p.51; and Interview, Senior Indonesian official, Jakarta, 3 March 1994. There is also a shortage of staff. An International Institute for Environment and Development (IIED) evaluation of the Forestry Ministry claimed that 10 times more field staff would be necessary to monitor logging concessions adequately. Summarized Mark Poffenberger, "Facilitating Change in Forest Bureaucracies," in Poffenberger, Mark, ed. Keepers of the Forest: Land Management Alternatives in Southeast Asia (Hartford: Kumarian Press, 1990), p.101.

area of 20,000 hectares; it is easy for timber operators to supplement their wages.⁹⁷ Poor state enforcement is further hampered by technocratic attitudes that undervalue the forests, lack of equipment, and poor training. Vast concessions -- an average one is around 100,000 hectares, though some are as large as 600,000 hectares -- in isolated regions with poor roads further impede monitors. As a result, there is little supervision of the few forestry officials in these areas; selective logging guidelines are flagrantly violated and operations are incredibly destructive.⁹⁸ Even the Ministry of Forestry estimates that in the 1970s and 1980s only 3.8 percent of loggers followed selective cutting guidelines.⁹⁹ A representative at SKEPHI is even more critical: "None of Indonesia's logging companies obey the rules."¹⁰⁰ A Western forestry advisor vividly describes timber management techniques in East Kalimantan: "I've seen people using

⁹⁷Edith Terry, "Indonesia's disappearing jungle," The Globe and Mail, 14 October 1989, p.A2.

⁹⁸According to James Rush, "timber harvesting goes on largely unchecked by either self-imposed conservation measures or by state vigilance." Rush, The Last Tree, p.36.

⁹⁹Summarized in WALHI and YLBHI, Mistaking, p.59.

¹⁰⁰Adam Schwarz, "Forest Framework," FEER, 12 March 1992, p.45. SKEPHI is strongly critical of forestry management in Indonesia. See SKEPHI, Selling Our Common Heritage: Commercialization of Indonesian Forest (Jakarta: SKEPHI, 1990); SKEPHI, Forest Problem In Indonesia Issues & Solution (Jakarta: SKEPHI, 1989). SKEPHI also publishes a journal which focuses on Indonesian forestry mismanagement. For example, SKEPHI, Setiakawan: A Call for International Solidarity on Indonesian Tropical Forest Issues, no. 4-5, January-June, 1990 provides a detailed account of the impact of development in Irian Jaya.

a bulldozer to get a pack of cigarettes."¹⁰¹

As a result of these brazen violations of management rules, studies of East Kalimantan show that as many as half of the remaining trees in logged areas are destroyed.¹⁰² One report estimates that around 23 million hectares of Indonesia's forests have been severely degraded by loggers.¹⁰³ A 1991 World Bank study estimated that poor logging practices destroy 200,000 hectares of productive forest every year in Indonesia. Other experts claim logging eliminates 300,000 hectares of primary forests a year.¹⁰⁴ Besides direct links to forest degradation, loggers also contribute indirectly to deforestation. Logging roads and poor protection of concession areas after harvesting allow slash-and-burn farmers easy access. As well, heavily logged areas are susceptible to devastating forest fires. In 1983, around 3 million hectares of

¹⁰¹Raphael Pura, "Rapid Loss of Forest Worries Indonesia," AWSJ, 3 February 1990, p.10

¹⁰²For a list of these studies, see Lesley Potter, "Environmental and Social Aspects of Timber Exploitation in Kalimantan, 1967-1989," in Hardjono, Joan, ed., Indonesia, Resources, Ecology, and Environment (Singapore: Oxford University Press, 1991), pp.182-183. For general background on deforestation and timber extraction on the island of Borneo, see Harold Brookfield, and Yvonne Byron, "Deforestation and Timber Extraction in Borneo & Malay Peninsula," Global Environmental Change 1, no. 1 (December 1990), pp.42-56.

¹⁰³Cited in Hurst, Rainforest, p.17.

¹⁰⁴Summarized in Adam Schwarz, "Emerald Forest," FEER, 7 February 1991, p.51; and Adam Schwarz, "Forest Framework," FEER, 12 March 1992, p.44.

tropical forest burned in Kalimantan, an area as large as Holland.¹⁰⁵ In late 1994, raging fires in Sumatra and Borneo disrupted airline flights, and polluted the air for thousands of square kilometres.¹⁰⁶

With almost no state control over timber operators, illegal logging is rampant. Illegal logging is connected to high-ranking political and military leaders, police, regional administrators, customs agents, and forestry staff.¹⁰⁷ In 1993, total timber production was around 35 million cubic metres. Yet illegal logging may be equivalent to legal logging, putting total log production at about 70 million cubic metres,¹⁰⁸ far above FAO's conservative estimate of sustainable production at 25 million cubic metres per year.¹⁰⁹ Logging companies use various techniques to evade timber

¹⁰⁵Peyton Johnson, "Fire in the Mother Lung," CERES FAO 24, no.3, (May-June, 1992), p.34; SKEPHI, Forest Fire Profile in Indonesia (Jakarta: SKEPHI, 1992). SKEPHI is critical of the lack of Northern assistance in combatting these fires. SKEPHI, Setiakawan, no. 7, January-June, 1992, pp.44-46.

¹⁰⁶As of mid-October, around 500,000 hectares had burned and the fires were still out of control. "Burning rainforest spreads pall over Southeast Asia," The Vancouver Sun, 18 October 1994, p.A17; and S. Jayasankaran and John McBeth, "Hazy Days," FEER, 20 October 1994, pp.66-67.

¹⁰⁷Many senior Indonesian forestry academics are funded by timber money and therefore are unwilling to document extensive illegal logging. Interview, WALHI, Jakarta, 3 March 1994.

¹⁰⁸Interview, Bogor Agricultural University, Faculty of Forestry, Bogor Indonesia, 28 February 1994; and Interview, Centre For International Forestry Research (CIFOR), Bogor Indonesia, 2 March 1994.

¹⁰⁹Summarized in Adam Schwarz, "Timber is the test," FEER, 23 July 1992, p.36. A World Bank study estimated that Indonesia's annual sustainable yield is only 22 million cubic metres. Summarized in Gareth Porter, "The Environmental Hazards of Asia

quotas. Loggers over-harvest their concessions and cut trees in National Parks and conservation areas.

Smuggling rings involving top military, political and business leaders, as well as local forestry officials, security officers and foreign business executives (particularly Malaysians) transport many of these logs outside the country.¹¹⁰ There are strong signs that Japanese companies are purchasing illegal logs from Kalimantan, and moving them through Borneo Malaysia.¹¹¹ In 1992, timber smuggling reportedly cost the state 135 billion rupiah.¹¹² Domestic processors -- who face a chronic shortage of supply -- are also deeply involved in illegal logging.¹¹³ This is hardly surprising since annual capacity of plywood plants and sawmills is 60 million cubic metres, about twice as high as the Forestry Department's estimate of sustainable production.¹¹⁴ As a result,

Pacific Development: The Southeast Asian Rainforests," Current History (December 1994), p.431.

¹¹⁰According to local Forestry service data, loggers smuggle between 50,000 to 100,000 cubic metres of illegal timber every year from West Kalimantan to Borneo Malaysia. SKEPHI, Setiakawan, no. 11, July-September 1993, pp.31-33.

¹¹¹Interview, Environmental consultant, Bogor Indonesia, 24 February 1994; and Nectoux and Kuroda, Timber, p.73.

¹¹²Asian Timber, January 1993, p.9.

¹¹³Debra J. Callister, Illegal Tropical Timber Trade: Asia Pacific (Cambridge, United Kingdom: Traffic International, 1992), p.30.

¹¹⁴This incongruity is partially a result of poor coordination between the Ministry of Forestry and the Ministry of Industry. The Ministry of Industry set the capacity of plywood mills, stressing intense production to maintain rapid economic growth. Interview, Bogor Agricultural University, Faculty of Forestry, Bogor Indonesia, 28 February 1994.

processors are constantly scrambling for more logs. According to a concession director, one way concessionaires increase supply is by hiring local people to cut logs illegally. These logs are reported 'stolen' and then bought back to feed the company's processing mill.¹¹⁵

B. Licence Fees, Royalty Policies, and Timber Taxes

Concession holders must pay uniform *ad valorem* royalties on the volume of logs extracted. This aggravates logging mismanagement since loggers face few penalties for damaging timber stocks and have no incentives to cut defective or low grade timber. Instead, loggers concentrate on removing the largest and most valuable species, often creating irreparable ecological harm.¹¹⁶

Poorly designed and insufficient licence fees, royalties and export taxes have contributed to Indonesia capturing a low percentage of timber rents. According to Repetto, from 1979 to 1982, "only \$1.6 billion of a potential aggregate rent of \$4.4 billion" was collected by the government -- the remainder became private profit.¹¹⁷ In 1992, the World Bank estimated that the

¹¹⁵Interview, Indonesian concessionaire, Jakarta, 3 March 1994.

¹¹⁶Gillis, "Indonesia: public policies," pp.59-60; and Barbier, et., al., "The Economics," pp.56-57.

¹¹⁷Robert Repetto, The Forest For The Trees? Government Policies and the Misuse of Forest Resources (Washington: World Resources Institute, 1988), p.43. For more details, see Gillis, "Indonesia: public policies," pp.85-98. "Rent, by definition, is a value in excess of the total costs of bringing trees to market as logs or wood products, including the cost of attracting necessary investment. That cost may include a risk premium that reflects uncertainties about future market and political conditions, so

Indonesian government collected only 30 percent of the economic rent from logging, compared with 85 percent for petroleum.¹¹⁸ Even more alarming, a study by WALHI found that the government captured a mere 8 percent of timber rents in 1989. In 1990, after an increase in reforestation fees and timber taxes, WALHI calculated that the government still captured only 17 percent of timber rents. According to a WALHI representative little has changed since then; the government now captures around 15 percent of timber rents.¹¹⁹

Low government rent collection has important implications. Loggers -- to maximize profits before rules suddenly change -- quickly and recklessly extract logs while ignoring silvicultural treatments, reforestation and sustainable management. According to one study, "when rent capture is low, it allows windfall profits to the concessionaires and/or their logging contractors. Inevitably, windfalls are perceived as short-term gains, and the beneficiaries

there are inevitably doubts about the exact magnitude of available rents." Robert Repetto, "Overview," in Gillis and Repetto, eds., Public Policies, p.18.

¹¹⁸Summarized in Adam Schwarz, "Timber is the test," FEER, 23 July 1992, p.36.

¹¹⁹WALHI and YLBHI, Mistaking, pp.20-21; and Interview, WALHI, Jakarta, 3 March 1994. There is a wide range of estimates of timber rent captured by the government, from a low of 8-15 percent by WALHI to a high of 83 percent by a government consultant. Most studies fall in a range between 20 to 30 percent. For a list of studies, see Dudung Darusman, "The Economic Rent of Tropical Forest Utilization in Indonesia," A Paper Presented at the National Seminar on the Economic Aspect of the Forestry Business in Indonesia, the Association of Forest Concessioners and the Ministry of Forestry, Jakarta, October 6-7, 1992, p.17.

will maximize them, as long as they last."¹²⁰ Low rent capture also creates a de facto subsidy that supports inefficient wood processing. As well, it allows exporters to sell high-grade timber at exceptionally low prices. The state needs to collect economic rents since private companies cannot be relied on to plough profits back into forest regeneration. Since reforestation and sustainable management involve long-term returns and high financial risks, and require political stability, corporations have a strong inclination to invest timber profits into other ventures, especially real estate which does not involve production, reinvestment, government licences, or concessions.¹²¹

Even though low Indonesian forest charges allow companies to make substantial legal profits, loggers routinely forge export documents, falsify harvest yields, illegally log inside and outside concessions, and ignore reforestation fees. According to one corporation, 19 out of 21 timber companies in South Sumatra manipulate their export documents to evade taxes.¹²² Companies also elude royalties and distort figures on volume extracted by reusing timber transportation documents, sometimes as many as 5 times.¹²³

¹²⁰Indonesian Ministry of Forestry and FAO, Indonesian Tropical Forestry Action Programme: Executive Summary (Jakarta, Government of Indonesia and the United Nations, 1991), p.44.

¹²¹Robison, "Toward A Class Analysis," p.33.

¹²²Summarized in SKEPHI, Setiakawan, no. 11 (July-September 1993), p.31.

¹²³SKEPHI, Setiakawan, no. 8 (July-September 1992), p.3.

C. Foreign Investment Policies

Prior to the mid-1960s, logging on the outer islands was limited. After 1967, government incentives under the new Foreign Capital Investment Law opened a door to large Northern and smaller Southern MNCs, triggering a logging boom in the primary forests.¹²⁴ From 1968 to 1980, the volume of logs extracted increased on average 22.5 percent every year. By 1979, 89 percent of production forest was divided into concessions.¹²⁵ During the late 1960s and early 1970s, foreign timber technology and management advice accelerated the rate of extraction.¹²⁶ MNCs made enormous profits by paying little for timber rights, 'mining' concessions of the most valuable trees, ignoring reforestation, refusing to invest profits in processing or rehabilitation, and avoiding taxes and

¹²⁴In the 1970s, major foreign investors in the Indonesian timber sector were from the Philippines, Hong Kong, Malaysia, the United States, South Korea, and Japan. Before 1980, Southern firms accounted for two-thirds of foreign investment in the Indonesian timber sector. From 1978 to 1981 Japanese investment expanded. But even in 1981 Southern firms still comprised over half of foreign timber investment. Gillis, "Multinational Enterprises," p.73. The significant impact of Southern investment -- and increasingly trade -- on Indonesian timber management suggests an important area for future research: contrasting the impact of Southern and Northern MNCs on resource management. For a preliminary comparison of the environmental impact of Northern and Southern MNCs on Indonesian timber management, see Ibid., pp.84-86.

¹²⁵Gillis, "Multinational Enterprises," p.70.

¹²⁶See Economic and Social Commission For Asia and the Pacific, Transnational Corporations and the Tropical Hardwood Industry of Indonesia, United Nations, Joint CTC/ESCAP Unit on Transnational Corporations, Working Paper no. 16, Bangkok, 1981, pp.1-2. While Southern investors accounted for over half of Indonesian timber investment, many of these companies used equipment and techniques absorbed from earlier contact with Northern companies.

royalties through transfer pricing.¹²⁷ Many of these giant logging operations were in Kalimantan. By 1971, 65 percent of timber produced came from Kalimantan; 75 percent was exported. By 1974, around 11 million hectares of Kalimantan had been carved into timber concessions.¹²⁸

During the 1960s and 1970s, multinational timber profits and log exports were lightly taxed. From 1967 until major tax reforms in 1983, foreign timber investors received four to six year income tax holidays -- which in practice sometimes exempted firms from paying any income tax.¹²⁹ As well, until 1978 log export taxes were only 10 percent of export value, compared to around 20 percent in Sabah.¹³⁰ As a result, companies made huge profits, nearly doubling after-tax investment returns. Despite increases in foreign exchange earnings from timber, in the early 1970s, the Indonesian government began to restrict foreign investment. The government was angry over low rates of reforestation, 'unfair' and uncooperative foreign firms, evasion of timber taxes, and, most importantly, the reluctance of MNCs to invest in processing. In 1975, the government forbid further foreign ownership or joint ventures in logging, and only allowed equity shares in timber

¹²⁷A.J. Leslie, "The government-TNC relationship in tropical timber concession contracts" (Unpublished paper, 1980), summarized in Ibid., p.5.

¹²⁸Hurst, Rainforest, p.2, and p.10.

¹²⁹This greatly reduced Indonesian state timber revenues. Gillis, "Indonesia: public policies," pp.67-69.

¹³⁰Gillis, "Multinational Enterprises," p.68.

processing.¹³¹

D. Processing Policies

The first Five Year Plan, Repelita I (1969/70-1973/4), emphasized log exports and increasing foreign exchange earnings. During Repelita II (1974/5-1978/9), the central government pushed concessionaires to build processing plants. Beginning in 1977, the government collected a mandatory deposit on log exports to finance construction of processing plants. To encourage more processing, the Indonesian government doubled log export taxes in 1978.¹³² Foreign firms that refused to participate in processing had the size of their concessions reduced. At the end of the 1970s, MNCs began to withdraw in anticipation of even greater government regulations and restrictions. Before leaving, however, many timber companies mined their concessions. Partially as a result, in 1979 Indonesia accounted for 41 percent of the world market in tropical logs.¹³³

From 1980 to 1985, the government implemented a ban on log exports.¹³⁴ The World Bank and all major industrialized countries

¹³¹Ibid., pp.74-76.

¹³²Gillis, "Indonesia: public policies," p.69. To evade export and income taxes both national and foreign firms were involved in undervaluing timber exports, including those to Japan. Gillis, "Multinational Enterprises," p.68.

¹³³Potter, "Environmental and Social Aspects," p.186.

¹³⁴In 1992, the 'ban' on log exports was lifted and replaced by astronomical taxes on log exports. This in effect maintains the ban.

-- including Japan, the U.S., and Canada -- opposed this decision, based primarily on free-market arguments. Indonesia ignored this pressure, concluding it was essential to control the market and develop a timber processing industry. There were three key reasons for this decision. One, to add value and diversify the economy away from a heavy emphasis on oil exports. Indonesian planners believed this would not occur in a free market. Two, to create jobs. Three, to provide incentives for long-term forestry investments.¹³⁵ While the government had 'rational' reasons for imposing a ban, state capacity to implement this policy was greatly increased by close cooperation and support from powerful domestic business leaders who wanted to concentrate and consolidate control. Hasan has played a crucial role in forming the state-business alliance that has strictly imposed this ban.¹³⁶

With government support, Indonesia's plywood industry grew quickly -- from 29 plywood mills in 1980 to 111 mills in 1988, with

¹³⁵Interview, Senior official, Bappenas, Ministry of Planning, Jakarta, 4 March 1994. According to this government spokesman, more companies now replant to ensure future supplies for their mills.

¹³⁶Part of the reason the government has been able to enforce a ban on log exports is that it has increased, rather than undermined, financial opportunities for the most powerful timber companies. On the other hand, the Indonesian state has not been able to control over-exploitation and environmental mismanagement. Environmental concerns, as a low profile, low priority issue aligned against strong patron-client networks and business interests do not create the internal support necessary to generate strong state action.

a tenfold rise in production.¹³⁷ Now there are over 130 plywood mills. In 1991 Indonesia controlled 85 percent of world trade in tropical plywood.¹³⁸ In 1992, Indonesia exported 9.2 million cubic metres of plywood. By 1993, forest exports earned US\$4.5 billion; plywood accounted for nearly 75 percent of these exports.¹³⁹ Plywood manufacturing also generates significant employment and foreign exchange.¹⁴⁰ Indonesia's plywood export strategy has been simple: flood the market with cheap plywood and destroy competitors; once this is accomplished, gradually raise prices and government taxes. In some ways, this strategy has been successful. While the ban led to a temporary loss in foreign exchange earnings, by 1988 -- using equipment supplied by Taiwan, South Korea, and Japan -- Indonesia had regained its foreign exchange earnings. With control over the world market in tropical plywood, Indonesia can

¹³⁷William B Wood, "Tropical Deforestation: Balancing Regional development demands and global environmental concerns," Global Environmental Change 1, no. 1 (December 1990), p.34.

¹³⁸M. Bob Hasan, Keynote Address, "Prospects for Plywood into the 21st Century," Proceedings of the World Conference on Tropical Plywood (Jakarta, ITTO, December 1991), p.21.

¹³⁹"Indonesia to reduce tree cutting to help preserve rainforests," The Japan Times, 27 July 1994, p.18.

¹⁴⁰Around 2.5 million people work directly in the timber industry and 1.2 million work in related industries such as glue manufacturing. In 1990, plywood exports accounted for 14 percent of total foreign exchange earnings. Hasan, "Prospects for Plywood," p.24. It is, however, important to note that government and corporate statistics exaggerate the economic benefits of timber processing since "primary forest assets are established without cost. Harvesting depreciates what is a valuable stock but the economic accounting of timber operations does not include this depreciation as a cost." Zerner, Legal Options, p.5.

potentially be a 'price leader.'¹⁴¹ But despite these apparent achievements, there have been major economic and environmental drawbacks of building a processing industry.

Dated technology, protective state policies and the log export ban have contributed to large numbers of inefficient processing mills.¹⁴² Even though many operate far below capacity -- some as low as 30 percent -- these mills waste valuable wood, putting even more pressure on forest resources.¹⁴³ Besides fostering inefficiency and over-capacity, the ban on log exports and state subsidies for processing -- including labour, electricity, and log costs -- have contributed to enormous state revenue losses. One study calculated that as a result of the phased log export ban, between 1981 and 1986 the government lost US\$1.9 to US\$3.1 billion

¹⁴¹Interview, Senior official, Bappenas, Ministry of Planning, Jakarta, 4 March 1994.

¹⁴²In Japan, processing efficiency is between 55 to 70 percent; in Indonesia it is between 40 to 50 percent. In fairness to Indonesian processors, while this discrepancy is partly a result of better Japanese technology, expertise, and policies, it is also partly due to differences in the quality of logs. Japanese processors import high quality logs while local Indonesian mills often use logs from the surrounding area, naturally decreasing efficiency. Interview, Japan Plywood Inspection Corporation, Tokyo, 8 April 1994.

¹⁴³Carlos Alberto Primo Braga, "Tropical Forests and Trade Policy: The Cases of Indonesia and Brazil," in Low ed., International Trade and the Environment, p.190. While I have no substantive evidence, a government spokesman claims that many processing mills have become more efficient since the mid-1980s. Interview, Senior Official, Bappenas, Ministry of Planning, 4 March 1994.

in export revenues.¹⁴⁴ By eliminating export restrictions, and improving rent collection, the World Bank estimates that the Indonesian government could collect another US\$2 billion in forestry fees every year. According to this report, the export ban has depressed Indonesian log prices to around half the world level. This has contributed to "over-cutting and over-investment in processing capacity."¹⁴⁵

Besides financial losses, the log export ban has added to environmental problems. In 1960, log production was only 1.4 million cubic metres. Pushed by foreign investment and technology, this climbed dramatically in the late 1960s and 1970s, reaching 24.6 million cubic metres in 1978. Between 1981 and 1985 as the log export ban was gradually imposed, log production dropped by 35 percent.¹⁴⁶ Indonesian government and business leaders sometimes point to this decrease in logging rates as proof of the environmental benefits of the ban. But this was a temporary respite. By 1988 log production was even higher, estimated at 32 million cubic metres.¹⁴⁷ Today, driven by strong demand from domestic processors, there is even more pressure on the forests

¹⁴⁴Holly Lindsay, "The Indonesian Export Ban: An Estimation of Foregone Export Earnings," Bulletin of Indonesian Economic Studies 25, no. 2, (August 1989), pp.111-123.

¹⁴⁵Quoted in Adam Schwarz, "Timber is the test," FEER, 23 July 1992, p.36.

¹⁴⁶WALHI and YLBHI, Mistaking, p.17.

¹⁴⁷This data on log production is from Indonesian Ministry of Forestry and FAO, Indonesian Tropical, p.4.

than at the height of log exports in the 1970s.¹⁴⁸

Many wood processors operate logging concessions. This is supposed to provide strong incentives for sustainable management since processors need steady future supplies. According to Hasan, "when you log, you don't care if there are any trees left at the end. But if you invested in a factory, then you must be sure of a supply of raw material."¹⁴⁹ In theory, Hasan may be right. But in practice, processors -- to maximize immediate profits -- mine their concessions and use illegal logs to feed their mills. Furthermore, allowing processors to own concessions distorts free market signals which would raise the price of logs as plywood prices increase. Partially as a result, log prices are far too low to support sustainable management.¹⁵⁰ To compensate for low log prices, Indonesia has considered forming a timber cartel to raise plywood prices. So far there has been little progress. The major tropical timber producers -- in particular Malaysia, Brazil, Nigeria, and the Ivory Coast -- have diverse interests and different markets: Brazil to the U.S.; Africa to Europe; and Malaysia and Indonesia to Asia. Countries like Malaysia are also

¹⁴⁸Potter, "Environmental and Social Aspects," p.180. Also see Braga, "Tropical Forests and Trade Policy," p.190.

¹⁴⁹Quoted in "Shades of green," Economist, 18 April 1992, p.38.

¹⁵⁰Interview, Bogor Agricultural University, Faculty of Forestry, Bogor Indonesia, 28 February 1994. Also see WALHI and YLBHI, Mistaking, pp.18-19.

nervous that Apkindo and Hasan would dominate a plywood cartel.¹⁵¹ In addition, unlike oil, a tropical plywood cartel would still face competition from substitute products, such as temperate plywood, plastics, and metals. For these reasons, an alliance to drive up plywood prices is unlikely.

E. Conservation, Reforestation, and Timber Plantations

There is an important distinction -- often blurred by government policies and statistics -- between reforestation that regenerates natural rain forests or replants vital watersheds, and reforestation that builds huge, fast-growing, single-species timber plantations. Most reforestation in Indonesia -- and throughout Southeast Asia -- focuses on single-species plantations. While these plantations can create employment, squeeze profits from degraded land, provide valuable timber stocks for pulp and paper producers, and perhaps even alleviate pressure to extract logs from natural forests, these cannot replace primary dipterocarp forests. Plantations cannot restore the bio-diversity, environmental benefits, or economic rewards of primary forests. Most plantation logs are also not an adequate substitute to make plywood.

Reforestation -- especially to protect watersheds and revive natural forests -- has a poor record in Indonesia. Even according to official figures, Indonesia only replanted 1.35 million hectares

¹⁵¹Interview, Senior Official, Bappenas, Ministry of Planning, 4 March 1994; and Interview, Foreign News Correspondent, Kuala Lumpur, 9 March 1994.

between 1969 and 1989.¹⁵² To ensure that companies replant, the government collects a non-refundable fee of US\$10 per cubic metre of logs extracted.¹⁵³ This is placed in a Reforestation Fund. Companies, however, frequently ignore these fees. WALHI and the Legal Aid Foundation estimate that the government only collected 30 percent of reforestation fees in the 1980s.¹⁵⁴ Equally perturbing, the small amount the government did collect was often squandered. In 1989, then Forestry Minister Hasjruul Harahap admitted that out of 600 billion rupiah collected, a mere 15 million rupiah had actually gone to reforestation.¹⁵⁵ Today, with higher reforestation fees, the Fund is larger -- but it is mostly being used to build timber plantations, not to regenerate logged areas.

There are now 1.8 million hectares of plantations, mostly teak estates on Java. By the year 2000, the government plans to establish a total of 6.2 million hectares of timber estates.¹⁵⁶ This target may well be exceeded. By 1991, the government had already accepted applications for 12.5 million hectares of

¹⁵²Indonesian Department of Information, Indonesia 1990: An Official Handbook (Jakarta: Department of Information, Republic of Indonesia, 1990), p.229. WALHI and YLBHI estimate that by 1990, 1.2 million hectares -- or 4 percent of logged areas -- had been replanted. WALHI and YLBHI, Mistaking, p.13.

¹⁵³In the 1980s, this was US\$4 and later US\$7 per cubic metre of timber extracted, refundable after reforestation.

¹⁵⁴WALHI and YLBHI, Mistaking, p.30.

¹⁵⁵Summarized in Rush, The Last Tree, p.38.

¹⁵⁶See Indonesian Ministry of Forestry, Directorate General of Reforestation and Land Rehabilitation, The Development of Industrial Forest Plantation (HTI) (Jakarta: Republic of Indonesia, 1993), p.4.

plantations.¹⁵⁷ Many environmentalists argue that these timber plantations are contributing to, rather than alleviating, forestry mismanagement. There are certainly serious problems. For example, the government only allows clear-cutting for plantations in non-productive areas. But according to one report, "companies are not interested in barren land, when they can maximise profits by logging natural forests and then replant them with timber estates."¹⁵⁸ A concession holder claims that logging companies routinely evade the rules for establishing plantations by encouraging locals to degrade productive forest areas. These companies then claim that locals are destroying the forest and it is necessary to develop a plantation to protect the area and make it productive.¹⁵⁹

F. Plantations and the Pulp and Paper Industry

Like the previous Minister of Forestry, the new minister is committed to developing huge plantations for pulp and paper. The government promotes pulp and paper plantations as an environmental and economic solution to depleting timber reserves. In 1991, Indonesia produced 1.1 million tons of pulp and 1.7 million tons of paper. Compared to other producers, Indonesia's output is still

¹⁵⁷WALHI and YLBHI, Mistaking, p.23.

¹⁵⁸Pulping The Rainforest: The Rise of Indonesia's paper and pulp industry, Down To Earth, The International Campaign for Ecological Justice in Indonesia, Special Report No. 1, July 1991, p.6.

¹⁵⁹Interview, Indonesian concessionaire, Jakarta, 3 March 1994.

low. But with government support, Indonesia plans to be one of the world's top ten pulp and paper producers by the year 2000.¹⁶⁰ There are also plans to build or expand more than 50 pulp and paper mills by 2010. These mills will be supplied by plantations that will cover 10 percent of total land area.¹⁶¹ The government is hoping foreign investment and aid will support these huge plantations.¹⁶² Since private companies are wary of the risks, the expense, and the long-term commitment, the government -- using the Reforestation Fund -- generally takes 49 percent equity and provides soft loans.¹⁶³

Many of the new pulp and paper mills are connected to military and political elite, particularly Suharto's patron-client network. Five of Indonesia's largest conglomerates -- Sinar Mas, Raja Garuda Mas, Astra, Barito Pacific, and the Kalimanis Group -- are already involved in pulp and paper operations.¹⁶⁴ The Sinar Mas Group, with annual revenues of US\$1.2 to US\$1.3 billion, has close links

¹⁶⁰Jonathan Friedland, "Aiming for a market," FEER, 18 April 1991, p.50.

¹⁶¹Pulping the Rainforest, p.2; and WALHI and YLBHI, Mistaking, p.3, p.24.

¹⁶²In 1990, former Forestry Minister announced: "We're opening our country. If you want to invest in these man-made forests, you are welcome." Quoted in Raphael Pura, "Indonesia Sees Tree Estates as a Cure-All," AWSJ, 6 February 1990, p.8.

¹⁶³Interview, Bogor Agricultural University, Faculty of Forestry, Bogor Indonesia, 25 February 1994; and Pulping the Rainforest, p.9. The low rate of private investment in plantations is aggravated by a legitimate fear that a sudden political change could nullify state licences.

¹⁶⁴Jonathan Friedland, "Aiming for a market," FEER, 18 April 1991, p.50.

to the children and followers of Suharto. This conglomerate, under the control of the Chinese-Indonesian Eka Tjipta Widjaja, is the largest producer of pulp and paper, and a key force pushing further development. Prajogo's Barito Group is also deeply involved in pulp and paper operations. Prajogo, Suharto's daughter, Rukmana, and the state forestry company P.T. Inhutani II are now developing a new pulp and paper mill in South Sumatra, called P.T. Tanjung Enim Pulp & Kertas. The Reforestation Fund is providing generous subsidies. Eventually, around US\$2.66 billion will be invested in this project. This mill is expected to produce one million tons of pulp and 500,000 tons of paper. To maintain log supplies, between 300,000 to 500,000 hectares have been set aside for timber plantations. Another key force driving pulp and paper development is Hasan and his Kalimanis Group. Along with Suharto's son, Sigit Harjojudanto, Hasan is a major shareholder in Kertas Kraft Aceh, which operates a pulp and paper plant in Sumatra. As well, he controls P.T. Aspex Paper, a joint venture with a South Korean company. Even more important than these current operations, Hasan has ambitious plans to expand his control over the pulp and paper industry.¹⁶⁵

¹⁶⁵See Pulping The Rainforest, pp.22-25, pp.29-32.

STATE ATTEMPTS TO IMPROVE TIMBER MANAGEMENT

Since Jamaluddin was appointed Minister of Forestry, the enforcement of logging guidelines has improved marginally.¹⁶⁶ As of December 1993, the government had rescinded 60 timber licences. Many concession holders have reacted by simply abandoning their site. Instead of fining or forcing these companies to replant, the government appointed the state forestry companies -- P.T. Inhutani I, P.T. Inhutani III, and P.T. Inhutani V -- to rehabilitate these degraded areas.¹⁶⁷ In some cases, the government has taken over shares of timber companies with poor management records and then appointed a state official to the board of directors. By early 1994, the state had assumed control of 20 percent of the shares of 12 concession holders and 100 percent of the shares of another dozen.¹⁶⁸ As well, the Forestry Ministry has announced an "intelligence operation" to catch illegal loggers "in the act."¹⁶⁹

¹⁶⁶Based on numerous interviews: Environmental Research Centre, Bogor Agricultural University, Bogor Indonesia, 25 February 1994; Environmental consultant, Bogor Indonesia, 24 February 1994; Sumitomo Forestry Co., Ltd., Tokyo, 20 April 1994. According to one optimistic source, he is open-minded, clean, powerful, an effective manager, and knowledgeable about forestry issues. Interview, Bogor Agricultural University, Faculty of Forestry, Bogor Indonesia, 28 February 1994. Another source claimed that he is honest and independent, and unlike almost everyone else, he has not been 'bought' by Hasan. Interview, Senior Official, Bappenas, Ministry of Planning, 4 March 1994. He also appears more willing to work with NGOs. Interview, WALHI, Jakarta, 3 March 1994.

¹⁶⁷Her Suharyanto, "HPH [Concession] Holders Take Money and Run," Indonesian Business Weekly 1, no. 51, 3 December 1993, p.16.

¹⁶⁸"The price of non-Compliance," Review Indonesia: Economic and Business, no. 98, 26 February 1994, p.8.

¹⁶⁹"Indonesia will send spies to hunt down illegal loggers," Japan Times, 18 November 1992, p.21.

As a result, the government fined several major companies for breaching logging rules. However, while these efforts are laudable, this campaign has done little to slow the rate of destructive extraction. So far the state 'crackdown' has produced stern rhetoric but few concrete moves against major timber operators. This is hardly surprising. With powerful political and military ties, and with cooperation from key forestry officials, these companies are largely immune to pressure from the Forestry Department. For example, in 1991 Barito Pacific Timber was fined 11.1 billion rupiah (US\$5.4 million) for cutting nearly 100,000 cubic metres of logs outside their concession. The company, however, refused to comply and it appears the fine will never be paid.¹⁷⁰

Besides these attempts to improve enforcement and compliance, the government is also developing a timber certification program to boost state control of the timber industry. Indonesia's timber certification program will create an environmental label for timber from sustainable sources. The labelling criteria are still being hammered out. Apparently, the labelling process will work on a cradle-to-grave principle, accounting for all stages of production, including cutting techniques, concession management, and processing. Ideally, at each stage there will be guarantees that the product is produced in a sustainable way.¹⁷¹ The program will

¹⁷⁰Adam Schwarz, "Forest Framework," FEER, 12 March 1992, p.45.

¹⁷¹Interview, Environmental consultant, Bogor, Indonesia, 24 February 1994.

create local criteria for sustainable management -- a practical check-list for loggers, processors, and government managers. Eco-labels for wood products will start from the year 2000,¹⁷² then hopefully spread to all products. According to an NGO representative, developing an eco-labelling program has provided a window of opportunity to discuss with the Ministry of Forestry and concessionaires the criteria for sustainable forestry management. This program also intrigues concession holders and Apkindo who see eco-labelling as a possible marketing tool.¹⁷³ There has been little foreign pressure for eco-labelling. Proponents of eco-labelling are aware that Indonesia's major wood markets -- Japan, Taiwan, South Korea, and China -- are indifferent to eco-labels. Advocates hope, however, that countries like Japan can be pressured or embarrassed into only importing wood with eco-labels.¹⁷⁴

The main force behind eco-labelling is the former State Minister of the Environment, Emil Salim. He has a direct connection to the President, and is quite influential, although Hasan, who has a strained relationship with Salim, is more powerful. Fortunately for the program, Salim has a close relationship with the new Minister of Forestry, and has a

¹⁷²This promise was made by Forestry Minister Jamaluddin. "Indonesia to reduce tree cutting to help preserve rainforests," The Japan Times, 27 July 1994, p.18.

¹⁷³Interview, WALHI, Jakarta, 3 March 1994. For a critique of eco-labelling, see SKEPHI, Setiakawan, no. 11, July-September, 1993, pp.44-46.

¹⁷⁴Interview, WALHI, Jakarta, 3 March 1994; and Interview, Eco-Labelling Program, Jakarta, 4 March 1994.

'gentleman's agreement' with the President to establish the program.¹⁷⁵ However, despite Salim's influence and the optimism of the NGOs involved, it is unlikely this program will succeed in the context of extensive military and political ties to timber operations. Furthermore, there is no reason to believe state implementation of certification guidelines will suddenly be better than the supervision and enforcement of current logging rules. Instead, it is more likely this program will be captured by business interests and used to expand markets and divert attention from unsustainable management. Hasan is already rumoured to be excited by the potential benefits of timber certification, and he is eager to start stamping plywood with an attractive logo that declares, 'from a sustainable source.'

Keeping in mind the importance of patron-client relations, distorted management policies, low state capacity, and efforts to tackle omnipresent problems, I now turn to assess the impact of Japan's shadow ecology on timber management. I argue that in the late 1960s and 1970s, Japanese investment, technology, and trade, often supported by ODA, accelerated unsustainable timber management. Despite important changes to Japan's shadow ecology since the mid-1980s -- including a decrease in investment and technology transfers, an end to log purchases, a rise in plywood imports, and marginal improvements to ODA -- three key elements continue to drive destructive logging in Indonesia: low consumer and export prices for tropical wood, wasteful consumption, and high

¹⁷⁵Ibid.

import tariffs.

JAPANESE INVESTMENT AND TECHNOLOGY TRANSFERS

The first Japanese link to large-scale commercial logging on Indonesia's outer islands was the Kalimantan Forest Development Corporation. Japanese trading and wood-based industries established this company in 1963 to supply the Indonesian state timber company Perhutani with equipment and technical support on credit. In exchange, Perhutani agreed to export at least 70 percent of its production to Japan. The Japanese government cooperated closely with the Forest Development Corporation. The President of the company was the former head of the Japanese Forestry Agency while the OECF provided 80 percent of all credit.¹⁷⁶

The 1967 Indonesian Foreign Capital Investment Law triggered a wave of Japanese investment. In 1968, only 9 Japanese companies had invested in Indonesia; by the late 1970s, there were over 200 companies.¹⁷⁷ From 1967 to 1989, Japan accounted for 24 percent of total investment in Indonesia. The second largest investor, Hong

¹⁷⁶Urano, "Commercial Exploitation," pp.67-69.

¹⁷⁷For general background on Japanese economic links with Indonesia in the 1970s, see Yoshi Tsurumi, "Japanese Investments in Indonesia: Ownership, Technology Transfer, and Political Conflict," in Gustav F. Papanek, The Indonesian Economy (New York: Praeger Publishers, 1980), pp.295-323; and J. Panglaykim, Indonesia's Economic and Business Relations with ASEAN and Japan (Jakarta: Centre For Strategic and International Studies, 1977). For a study of Japanese MNCs in Indonesia during this period, see AMPO: Japan Asia Quarterly Review, Special Issue on "Japanese Transnational," pp.3-54.

Kong, was far behind at almost 9 percent of the total.¹⁷⁸ Although to a lesser extent than in other sectors, almost all major Japanese trading companies -- including Mitsubishi, Marubeni, Itochu, Nissho-Iwai, Mitsui, and Sumitomo -- invested in timber ventures in Indonesia.¹⁷⁹ For joint timber ventures, the majority of Japanese corporations chose Indonesian partners based on their political, military, or bureaucratic connections, not their expertise or financial resources. For this reason, the Japanese company often supplied the equity of local partners.¹⁸⁰ As well, Japanese ventures tended to be smaller than American and British logging

¹⁷⁸Hirooyoshi Kano, "The Structure of Japan-Indonesia Relations and the Relations of NGOs of Both Countries," in Reshaping "Development", p.13.

¹⁷⁹At the end of 1978, total Japanese investment in the Indonesian timber sector was US\$46.2 million, compared to US\$48.7 million from the United States, US\$49.1 million from Malaysia, US\$53.0 million from Hong Kong, and US\$72.6 million from the Philippines. Direktorat Jenderal Kehutanan, Kehutanan Indonesia 1978 (Bogor: October 1979), cited in Gillis, "Multinational Enterprises," p.73. Some of the Philippine companies were apparently backed by Japanese interests. Interview, Senior Professor, University of the Philippines at Los Banos, 1 February 1994.

¹⁸⁰Yoshi Tsurumi, A Report Submitted to the Harvard Advisory Group (Jakarta: Bappenas, October 1973), pp.13-14, in Robison, "Toward A Class Analysis," p.29. For a list of Japanese investments prior to the log export ban, see Urano, "Commercial Exploitation," see Table 5, pp.72-73. The following are a few examples of Japanese timber investments: until 1986, Mitsubishi controlled 80 percent of P.T. Balikpapan Forest Industries Ltd; until 1978, Tomen owned 49 percent of P.T. East Kalimantan Timber Industries; until their licence was cancelled in 1978, Mitsui held 45.5 percent of P.T. Kalimantan Forest and controlled P.T. Palembang Timber Development Co. Ltd. until 1985.

operations.¹⁸¹

Along with other MNCs, Japanese corporations provided technology that expedited rapid and destructive extraction of huge quantities of dipterocarp logs. For example, in East Kalimantan during the 1960s, many companies had limited equipment and tracts were often logged by hand. This frustrated Japanese buyers who wanted faster, more efficient extraction. To increase supply in East Kalimantan, Japanese buyers provided "credit for mechanization" and "by 1971 refused to accept hand-logged timber."¹⁸² During this period, it was also common for Japanese trading companies to provide equipment in exchange for dipterocarp logs.¹⁸³ In addition, in the 1970s Japanese companies supported large-scale logging of fragile mangrove forests in Kalimantan and Sumatra. By the mid-1980s, around 4 percent of mangrove trees had been converted to wood chips, shipped mostly to Japan and Taiwan and manufactured into high-quality paper.¹⁸⁴ Today, Indonesia's mangrove forests are facing extinction.¹⁸⁵

¹⁸¹Malcolm Gillis, "The Logging Industry In Tropical Asia," in Julie Sloan Denslow and Christine Padoch, eds., People of the Tropical Rain Forest (Berkeley: University of California Press, 1988), p.179.

¹⁸²Potter, "Environmental and Social Aspects," p.182.

¹⁸³Urano, "Commercial Exploitation," see Table 5, pp.72-73.

¹⁸⁴M.D. Fortes, "Mangroves and Seagrass Beds in East Asia: Habitats Under Stress," Ambio 17, no.3 (1988), pp.207-213, summarized in Nectoux and Kuroda, Timber, p.81.

¹⁸⁵In 1990, then Forestry Minister Harahap announced that, without strong conservation measures, of the remaining 4.3 million hectares of Indonesian mangrove forests, 1 million hectares would soon disappear. "One million ha of RI's mangrove forests

The Japanese government encouraged and supported corporate timber ventures in Indonesia. Both ODA and other official flows financed preliminary logging surveys and risky timber investments.¹⁸⁶ According to Nectoux and Kuroda, in the case of Kalimantan, the logging boom, "which appeared to be...provoked by market conditions, was in fact carefully engineered from Japan by public and private interests. The feasibility study and much of the necessary survey work were undertaken by...JICA's predecessor."¹⁸⁷ The OECF also supported commercial logging in Indonesia. Although since 1975 the OECF has mainly provided intergovernmental loans, initially it granted loans to Japanese firms involved in development projects in the South. From 1963 to 1981, more than 70 percent of OECF general forestry project loans went to Indonesia (41 of 55 projects), most at the height of the logging boom, 1969 to 1974. While loan information is confidential, most trading companies likely received OECF loans during this period, including Mitsui, Sumitomo Forestry and Nissho

threatened with extinction," Jakarta Post, 8 October 1990. As with all Forestry Department statistics, environmentalists consider the estimate of 4.3 million hectares of mangrove forests highly exaggerated. Hurst claims that only 1 million hectares of mangrove forests remain. Hurst, Rainforest, p.3.

¹⁸⁶Urano, "Commercial Exploitation," footnote 30, p.74.

¹⁸⁷Nectoux and Kuroda, Timber, p.79. Of course, other MNCs also accelerated logging in East Kalimantan. For a general discussion of the role of multinational corporations in East Kalimantan's timber industry, see William B. Wood, "Two Boom Cities In The Resource Frontier: An Indonesian Case Study," Asian Geographer 5, no. 1 (1986), pp.25-41.

Iwai.¹⁸⁸

Besides loans to Japanese trading companies, OECF loans to the Indonesian government also expedited the timber boom. According to Urano, "although these were mainly loans to develop infrastructure such as electric power plants or transport facilities, there is little doubt that much of it was granted to promote the timber trade."¹⁸⁹ Since the content of and rationale for OECF loans are confidential, it is difficult to document links between general loans and timber extraction. A few leaks have occurred. A 1970 OECF report on loans for the construction of the Balikpapan-Samarinda road declares: "This area is famous for growing tropical lauau timber exported to Japan, and there is no doubt that [this project] will directly and indirectly promote the timber industry and prove immensely profitable to Japan through Japanese firms that operate locally."¹⁹⁰

MITI also provided money to encourage Japanese corporations to invest in timber operations and import logs.¹⁹¹ Meanwhile, JICA's predecessor "conducted feasibility studies for infrastructure development (i.e., harbours, roads, and bridges) that were deemed

¹⁸⁸Mitsui received loans of 193 million yen for forestry development in Central Kalimantan and 510 million yen for forestry development in South Kalimantan. Sumitomo received 1.3 billion yen for forestry development in East Kalimantan in a series of loans from 1970 to 1974. Urano, "Commercial Exploitation," pp.82-83.

¹⁸⁹Ibid., p.83.

¹⁹⁰OECF, "Report of the Indonesian Project Mission of 1970," quoted in Ibid., p.83.

¹⁹¹For a list of MITI projects, see Ibid., Table 6, pp.76.

important to Japan's timber trade and surveys to gather information necessary for timber operations (i.e. aerial photographs, topographical maps, and forest stock estimates)."¹⁹² Of course, not all of these projects were designed solely to support timber extraction. But for many this was a key concern. In the case of the 1975 Banjarmasin Harbour Project, JICA's objective was "to improve harbour facilities in order to develop an area rich in timber resources into a production and distribution site mainly for the timber industry."¹⁹³ Besides surveys, JICA's Development Cooperation Fund, established in 1974, provided technical assistance and low interest loans to Japanese timber firms involved in experimental forestry projects and facility upgrades. Although JICA does not disclose loan information, according to Urano, Mitsubishi, Mitsui, and Sumitomo Forestry have all received loans for timber operations in Indonesia.¹⁹⁴ Finally, the EXIM Bank has granted loans to Japanese logging enterprises in Indonesia. Although most of this information is also restricted, between 1974 and 1980 the Bank loaned almost ¥7 billion for timber related projects in Indonesia, Malaysia, and Papua New Guinea.¹⁹⁵

¹⁹²Ibid., p.75.

¹⁹³JICA, JICA Annual Report, 1976, quoted in Ibid., p.75.

¹⁹⁴Ibid., pp.75-78.

¹⁹⁵Yoichi Kuroda, "Commercial Exploitation of Indonesian Tropical Forests by Japan," in JANNI, Reshaping "Development", p.44; and Urano, "Commercial Exploitation," p.85. According to an EXIM Bank spokesman, the Bank is not funding any current logging project in the Philippines, Malaysia, or Indonesia, although the Bank is prepared to make loans in this area. Interview, Senior official, EXIM Bank of Japan, Environment Section, 11 April 1994.

Like other MNCs, Japanese trading companies largely pulled out of Indonesia after the log export ban.¹⁹⁶ According to the Japan-Indonesian Entrepreneurs' Association, in 1988 only 9 timber and woodworking joint ventures remained.¹⁹⁷ Prajogo, Indonesia's largest timber operator, assumed control of several Japanese concessions, including ones held by Marubeni and Mitsubishi. Even though these companies no longer participate directly in operations, close ties have remained. As Raphael Pura notes, "the Japanese, in effect, left the job of operating their remote concessions to Mr. Prajogo, while continuing to market his timber and help finance expansions."¹⁹⁸

In 1989, Indonesia removed many restrictions on foreign investment.¹⁹⁹ This has led to increases in overall investment, but only a small amount has gone to timber enterprises. Today, there is little foreign investment in Indonesia's plywood mills -- only five are joint ventures and all are controlled by Indonesians. Of these five, two are Japanese -- one in East Java, and one in

¹⁹⁶Sumitomo was one of the few Japanese trading companies to remain in Indonesia after the log export ban, although on a much smaller scale than in the 1970s when it controlled over 20 firms connected to the timber industry. Nectoux and Kuroda, Timber, p.79. For a list of remaining Japanese timber investments, see Ibid., Appendix C, pp.120-121.

¹⁹⁷Summarized in SKEPHI, Setiakawan, A Special Edition on Japan's Role in the Timber Industry, no. 3, November-December 1989, p.18.

¹⁹⁸Raphael Pura, "Timber Tycoon Confronts His Critics," AWSJ, 27 August 1993, p.8.

¹⁹⁹"Suharto and the reins of power," The Economist, 17 November 1990, p.38. In June 1994, the government lifted even more restrictions.

Southern Sulawesi -- and three are Korean.²⁰⁰ There is more foreign participation in the pulp and paper industry. In 1990, foreign investment in pulp and paper was US\$730 million out of a total of US\$8.75 billion. In 1991, there were five major pulp and paper joint ventures, accounting for 24 percent of production (42 percent of pulp and 17 percent of paper).²⁰¹

While Japanese companies have only invested limited amounts in pulp and paper operations, these have been linked to environmental problems. For example, Marubeni invested US\$3 million in a mangrove chipping mill in Irian Jaya operated by P.T. Bintuni Utama Murni. In return, Marubeni has a ten year contract to buy 300,000 tons of wood chips annually. Environmentalists have strongly attacked this project, situated in an area that was once a National Park. Even the Indonesian government has criticized P.T. Bintuni for poor management. In 1990, the government fined P.T. Bintuni US\$590,000 and temporarily suspended their licence for illegal logging. Apparently, however, this fine has not yet been paid.²⁰²

In recent years, Japanese corporations have made minor contributions to conservation projects in Indonesia. For example, the Keidanren Nature Conservation Fund provided ¥10 million to the

²⁰⁰Interview, Asosiasi, Panel Kayu Indonesia, Apkindo, Jakarta, 1 March 1994.

²⁰¹WALHI and YLBHI, Mistaking, p.27, and p.6.

²⁰²Pulping The Rainforest, p.35. Five Japanese companies have also invested in Chipdeco, a mangrove chipping plant in East Kalimantan.

Sulawesi Nature Conservation project.²⁰³ In 1991, Sumitomo, along with RETROF, the University of Tokyo, and the Indonesian Ministry of Forestry, established an experimental reforestation program in East Kalimantan. In the first five years, Sumitomo will spend about ¥50 million. The 100 hectare site is developing new techniques for planting indigenous dipterocarp in open spaces. While this decreases survival rates, trees grow much faster, reaching cutting maturity in perhaps as little as 30 years. In the first year, the survival rate was only 30 percent, partly because of light rainfall. In the second year, with improved weather conditions, and better planting techniques, the survival rate rose to 70-80 percent. This project is also trying to include local people, create employment and reduce shifting cultivation.²⁰⁴ While commendable, compared to the lingering impact of past practices, and the current rates of destructive logging, these efforts are inconsequential.²⁰⁵

²⁰³Keidanren, "Keidanren Nature Conservation Fund."

²⁰⁴Interviews, Senior officials, Sumitomo Forestry Co., Ltd., Tokyo, 20 April 1994; Sumitomo Forestry, Ministry of Forestry (Republic of Indonesia), PT. Kutai Timber Indonesia, and the University of Tokyo, Research Report on the Sebulu Experimental Forest: 1992, July 1993; and Sumitomo Forestry, "Tropical Rain Forest Regeneration Project Gets Under Way in Indonesia," Greengraph: Sumitomo Forestry Newsletter 1 (March 1992), pp.1-2.

²⁰⁵Japanese corporations have provided no assistance for large-scale Ministry of Environment programs. Interview, State Ministry of Environment, Jakarta, 3 March 1994.

JAPANESE ODA AND TIMBER MANAGEMENT

Japan is the largest bilateral ODA donor to Indonesia, accounting for over 60 percent of aid received in 1991. In 1992, Indonesia received nearly 16 percent of Japanese bilateral ODA, the biggest share of any country.²⁰⁶ Almost 38 percent of Indonesia's foreign loans are owed to Japan, compared to nearly 32 percent to multilateral institutions and a little more than 6 percent to the United States.²⁰⁷ Unlike in the 1960s and 1970s, today there is little evidence Japanese ODA is tied to commercial logging operations or securing timber supplies. Japanese aid now primarily supports commercial timber plantations and transferring processing technology and expertise. Though limited, JICA has also provided technical and financial support for natural forest regeneration, harvesting of less utilized species, and prevention of forest fires. As of early 1994, there are nine on-going Japanese ODA projects in Indonesia -- most are linked to plantations.²⁰⁸

²⁰⁶Japanese Ministry of Foreign Affairs, Japan's ODA 1993, pp.45-46. For a study of Japanese ODA in Indonesia, see Hadi Soesastro, Japan's ODA and Indonesia: Resource Security Aid? (Jakarta: Centre for Strategic and International Studies, 1991).

²⁰⁷Arief Budiman, "Human Rights, Foreign Aid and People to People Cooperation," in JANNI, Reshaping Development, p.28.

²⁰⁸Seven are grants for a total of approximately US\$15 million. Two are loans for a total of about US\$22 million. For a list, see Indonesian Ministry of Forestry, "Daftar Proyek Bantuan Luar Negeri (On-going Projects), Departemen Kehutanan (Tahun Anggaran 1993/1994), and the Evaluation of CGIF Questionnaire Proyek of On-Going Forestry Foreign Cooperation Project as of October 1993," supplied by an official at the Indonesian Ministry of Forestry, Jakarta, 1 March 1994. For more details on JICA forestry projects in Indonesia, see JICA, Environment (Jakarta: Indonesia Office, 1993), pp.12-19.

Compared to the severe problems facing Indonesia's timber industry, Japanese aid has had little impact on environmental protection or improving forestry management.²⁰⁹ Even though Japan is the largest contributor to Indonesian forestry ODA, accounting for around 35-40 percent of technical assistance, the total is still quite small. If timber prices incorporated environmental costs, it would far surpass the financial contribution of ODA.²¹⁰

Besides inadequate forestry aid, general Japanese loan and technical cooperation projects in Indonesia do not adequately incorporate environmental objectives. Japanese aid still supports high-tech equipment purchases, with little regard for environmental implications and with little institutional support. As well, Japanese aid officials in Indonesia have little environmental expertise or ground-level knowledge and are reluctant to work with foreign environmental consultants.²¹¹ Aid staff also apparently hesitate to work far away from amenities, and avoid places like Irian Jaya.²¹² Many of these aid officials insulate themselves,

²⁰⁹Of course, there have been some positive contributions -- for example, a 1991 OECF loan to upgrade 18 environmental research facilities. The money was used to improve facilities, buy books and equipment, and educate staff. Interview, Environmental Research Centre, Bogor Agricultural University, Bogor Indonesia, 25 February 1994.

²¹⁰Interview, Centre For International Forestry Research (CIFOR), Bogor Indonesia, 2 March 1994.

²¹¹Interviews, Environmental consultants, Bogor Indonesia, 24 February 1994.

²¹²Interview, Indonesian Ministry of Forestry, Bureau of International Cooperation and Investment, Jakarta, March 1, 1994. In contrast, a Japanese official claimed that JICA has difficulty convincing senior Indonesians to study in the field. Interview,

stay a short time, and learn little about Indonesia. R. Forrest notes that even though "Japan is the leading provider of ODA to Indonesia, providing 12 times as much aid as the US, Japan has only 20 field staff there, less than one-fifth the total USAID staff; in-country Japanese staff are responsible for 70 times as much aid money per person as USAID staff."²¹³ These problems are compounded by senior Tokyo administrators who dictate key decisions with minimal understanding of Indonesia's diverse cultures and ecosystems.²¹⁴ One NGO activist claims that JICA -- in terms of environmental awareness -- is one of the worst aid agencies in Indonesia.²¹⁵

TRADE: APKINDO, NIPPINDO, AND THE BATTLE FOR JAPAN'S PLYWOOD MARKET

Japan and Indonesia have extensive trade links. Throughout the 1970s and 1980s, between 40 to 50 percent of Indonesian exports went to Japan while generally 20 to 30 percent of Indonesia's imports came from Japan. Indonesia primarily imports manufactured

Coordinator of JICA Indonesia, Jakarta, 1 March 1994.

²¹³Forrest, "Japanese Aid," p.29.

²¹⁴Interviews, Environmental consultants, Bogor Indonesia, 24 February 1994.

²¹⁵Interview, Asian Wetlands Bureau, Bogor, Indonesia, 2 March 1994. A Indonesian Ministry of Environment official is less harsh, claiming some improvements have been made to JICA projects in recent years. Interview, State Ministry of Environment, Jakarta, 3 March 1994.

products from Japan and exports natural resources to Japan.²¹⁶ In the 1960s and 1970s, Indonesia was a crucial source of logs for Japanese plywood processors. In 1971, Indonesia replaced the Philippines as the main source of Japanese log imports. In 1974, Indonesian log exports to Japan peaked at almost 11.5 million cubic metres, accounting for 47 percent of total Japanese imports. In the early 1980s, as the Indonesian government implemented the log export ban, Japanese log imports from Indonesia fell sharply until ending in 1986.²¹⁷ Since then Indonesian plywood exports to Japan have steadily increased. In 1993, Indonesia exported 9.6 million cubic metres of plywood -- 3.7 million cubic metres went to Japan, by far Indonesia's largest market.²¹⁸

Apkindo has flooded the Japanese market with cheap plywood. To expand market shares, Indonesian processors produce plywood from high quality logs. A Japanese trading company official claims that "[for plywood] Indonesia is stripping vast amounts of logs [of such high quality] that we in Japan can only dream of laying our hands on nowadays."²¹⁹ According to a representative from the Japan

²¹⁶Kano, "The Structure of Japan-Indonesia Relations," see Table 2 and Table 4, pp.6-8 (This data is from various issues of the Statistical Yearbook of Indonesia).

²¹⁷Nectoux and Kuroda, Timber, p.36. For data on the quantity of Indonesian logs imported by specific Japanese companies, see Urano, "Commercial Exploitation," Table 4, p.71.

²¹⁸In 1989, Indonesia exported about 3.2 million cubic metres of plywood to Japan. From 1990 to 1992 this dropped to just below 3 million cubic metres before surging in 1993. This data was supplied by an official at Apkindo, Jakarta, 1 March 1994.

²¹⁹Quoted in Urano, "Commercial Exploitation," p.92.

Plywood Manufacturers' Association, Apkindo is a monopolistic, undemocratic organization ruled by Hasan, which has a clear strategy to destroy Japan's plywood industry.²²⁰ Apkindo has unwritten rules to force private companies to sell below international market prices. This is possible since Indonesian labour and log costs are much lower than for international competitors.²²¹ Under Apkindo, Indonesian plywood processors must export 40 percent of their total plywood production to Japan, 20 percent of which must be as *kon pane*. This is sold at extremely low prices to undercut Japanese processors.²²² Obviously, in the immediate term, it would be more profitable for individual firms to export to markets other than Japan. Yet there is little choice. If the quota to Japan is ignored, Apkindo can decimate a company by refusing to allow future exports.²²³

Besides quotas to keep prices low and quality high, Apkindo established Nippindo to market Indonesian plywood in Japan. By using Indonesian ships, and in conjunction with strict quotas and controls by Apkindo, Nippindo sells high-quality plywood at very

²²⁰Interview, Senior official, Japan Plywood Manufacturers' Association, 8 April 1994.

²²¹Interview, Bogor Agricultural University, Faculty of Forestry, Bogor Indonesia, 28 February 1994.

²²²Numerous knowledgeable sources in and outside Indonesia confirmed that Apkindo is suppressing prices to bankrupt Japanese plywood competitors and capture this lucrative market.

²²³Interview, Senior official, Bappenas, Ministry of Planning, Jakarta, 4 March 1994. In response to a question on how he maintains discipline, Hasan remarked: "I sign the approval for revoking a company's export licence." "Shades of green," Economist, 18 April 1992, p.34, and p.38.

low prices. So far, Nippindo has been remarkably successful. In 1993, total Japanese plywood consumption was 9.2 million cubic metres -- 4 million from imports, and the remainder from domestic production.²²⁴ Indonesian plywood accounts for over 40 percent of total Japanese consumption, and around 70 percent of *kon pane*.²²⁵ Part of the reason for Nippindo's remarkable success is the general Japanese perception that Indonesia is not an economic threat (unlike the U.S.) and the tendency of the Japanese government to stress protecting high-tech industries.²²⁶

Apkindo's and Nippindo's tactics demonstrate the vulnerability of Japanese processors who rely on overseas logs. As Apkindo undercuts plywood prices, as log prices rise, and as supplies fluctuate, many Japanese plywood processors have been driven out of business. Between 1987 and 1992, domestic plywood production dropped 20 percent.²²⁷ On average 5 plywood factories have been closing every year in Japan. As of April 1994, there were only 100 members of the Japan Plywood Manufacturers' Association (JPMA). By

²²⁴Interview, Senior official, Japan Lumber Importer's Association, Tokyo, 4 April 1994.

²²⁵Interview, Asosiasi, Panel Kayu Indonesia, Apkindo, Jakarta, 1 March 1994; and Interview, Senior official, Japan Plywood Manufacturers' Association, 8 April 1994. In 1993, even though Indonesian plywood exports to Japan increased, as a percentage of total plywood imports, Indonesia's portion declined as more softwood plywood was imported. See the Japan Plywood Manufacturers' Association, Plywood Industry in Japan (Tokyo: Japan Plywood Manufacturers' Association, April 1994), p.6, Table 7.

²²⁶Interview, Senior official at Bappenas, Ministry of Planning, Jakarta, 4 March 1994.

²²⁷Japanese Lumber Journal, 31 December 1993, p.4.

the year 2000, the JPMA predicts that only 60 factories will remain.²²⁸ Spurred by the success of Apkindo and Nippindo, there are signs Indonesia will use similar tactics to dominate the world pulp and paper industry. For now, pulp and paper projects are expanding quickly with few controls. However, once economic momentum develops, there are plans to establish an over-arching organization to control and guide the industry (perhaps modelled after Apkindo, perhaps even headed by Hasan).²²⁹

Japanese officials argue that Apkindo practices unfair trade. In the late 1980s, the JPMA persuaded the Japanese government to hold a bilateral conference to discuss Apkindo's export strategy. This conference produced no results. The JPMA has also appealed to the Fair Trade Commission of GATT but Apkindo is technically a non-governmental organization and GATT has no jurisdiction.²³⁰ Despite the growing power of Apkindo and Nippindo, the financial crisis of many Japanese processors, and the inability of the processing industry to push back the assault, Japanese plywood officials remain optimistic. According to several spokesmen, Apkindo's strategy of flooding Japan with cheap imports cannot continue, especially if Indonesia keeps the recent promise by Forestry Minister Jamaluddin to slash annual timber production from over 30

²²⁸Senior Executive, Japan Plywood Manufacturers' Association, Tokyo, 8 April 1994.

²²⁹Interview, Senior official, Bappenas, Ministry of Planning, 4 March 1994.

²³⁰Interview, Senior official, Japan Plywood Manufacturers' Association, 8 April 1994.

million cubic metres to 22 million cubic metres.²³¹ Despite the rapid loss of valuable commercial timber, Apkindo remains equally optimistic. According to a spokesman, high labour and tropical log costs and the inability of temperate plywood to satisfy consumers will eventually lead to the collapse of Japan's plywood industry. Apkindo can then increase profit margins in Japan, which are now fairly low, especially for *kon pane*.²³² While it is uncertain who will be victorious in this plywood war, it seems clear that Indonesia's forest will sustain heavy casualties.

In the late 1970s, Taiwan and Korea, realising that plywood processing was a sunset industry, dismantled plywood mills, and exported used equipment to Indonesia.²³³ But Japanese processors have stubbornly persevered. To protect and prolong the industry, the Japanese government and the private sector have tried to thwart Indonesia's plywood industry. For example, after the log export ban was announced, the Japanese Ambassador, Japanese companies, JICA, and the OECF all lobbied to lift the ban. While these tactics failed, the Japanese government has also maintained stiff tariff and non-tariff barriers to block plywood imports.

²³¹Interviews, Japan Lumber Importer's Association, Tokyo, 4 April 1994; Japan Plywood Manufacturers' Association, Tokyo, 8 April 1994; Japan Plywood Inspection Corporation, Tokyo, 8 April 1994.

²³²Interview, Asosiasi, Panel Kayu Indonesia, Apkindo, Jakarta, 1 March 1994.

²³³Interview, Centre For International Forestry Research (CIFOR), Bogor Indonesia, 2 March 1994.

JAPANESE TARIFF BARRIERS

Japan imposes a 15 percent tariff on plywood imports.²³⁴ The Japanese government calculates the tariff based on a price that includes shipping and insurance costs. This makes Japan's import tariff higher than the more usual calculation based on a FOB (free on board) price (such as in the U.S. which has an 8 percent FOB tariff on plywood imports). Northern tariffs on plywood reduce the profits of Indonesian exporters and the revenues of the Indonesian government. An official at the Indonesian Ministry of Planning claims that Apkindo exports high-quality plywood to Japan at prices 5 to 10 percent lower than to other countries to overcome tariff and non-tariff barriers.²³⁵ According to Hasan, "in many cases, the consuming country's tax revenue on a sheet of plywood is greater than the total growth of value in producing countries."²³⁶ In 1991, Indonesia paid Japan US\$125 million in import duties on processed timber. These import charges deplete Indonesian revenue essential for sustainable management. In theory, as former Forestry Minister Harahap argued, "if the import duties are lowered, the deductions from paying import duties can be allocated

²³⁴Logs are not charged any import duties. Adam Schwarz, "Trade for trees," FEER, 4 June 1992, p.60. The 15 percent tariff is for plywood that is less than 6 millimetres thick. If the thickness is more than 6 millimetres then the import duty is 10 percent. Asian Timber, October 1994, p.9.

²³⁵Interview, Senior official, Bappenas, Ministry of Planning, Jakarta, 4 March 1994.

²³⁶Hasan, "Prospects for Plywood," p.16.

for the conservation of our tropical forests."²³⁷ Besides the 15 percent tariff, Japan also has non-tariff import barriers. The most important is the regulation that government projects must use Japanese Agricultural Standard (JAS) certified timber. The Japan Plywood Inspectors Corporation issues these certificates based on quality. Indonesia has largely managed to overcome this non-tariff barrier: 50 plywood mills now qualify for JAS certificates.²³⁸

CONCLUSION

Modern patron-client relations are a dominant feature of the New Order Government. Like traditional ties, these are vertical, asymmetrical, reciprocal, personal, instrumental, and non-contractual; but modern links tend to be more opportunistic, fluid, and materialistic, and have weaker feelings of loyalty. These patron-client ties bind together powerful political, military, bureaucratic, and corporate elites. Links between *pribumi* (indigenous or non-Chinese) state patrons and ethnic Chinese business clients are particularly important. Societal prejudice and regular backlashes against Chinese businesses create even weaker feelings of loyalty between ethnic Chinese and state elite than among *pribumi* Indonesians. While these ties have been quite stable during the New Order, there is a sense of apprehension and

²³⁷Quoted in "Jakarta receives US\$1.9 b in new loans from Japan for development," Star, 15 September 1992, p.16.

²³⁸Interview, Asosiasi, Panel Kayu Indonesia, Apkindo, Jakarta, 1 March 1994; and Interview, Senior official, Japan Plywood Inspection Corporation, Tokyo, 8 April 1994.

uncertainty which encourages ethnic Chinese business leaders to channel profits overseas.

President Suharto leads the largest and most powerful patron-client network with his family, friends, and key followers at the core. He provides protection, state funds, licences, concessions, and access to the corridors of power in exchange for political loyalty, financial support, legitimacy, and stability. He has been especially careful to coopt or appease influential military generals, appointing officers to key state positions, awarding lucrative concessions and licences, and supporting the business interests of military patron-client networks. Many of Suharto's clients also function as political, military, or bureaucratic patrons, building a base of power using their state position, wealth, and connections to Suharto. This process of clients acting as patrons contributes to patron-client ties pervading all levels of the state and society. This does not, however, translate into power flowing upward to a single summit; power is more diffuse, resting in pockets of patron-client clusters, pyramids, and networks -- creating what Migdal calls a weblike society. For this reason, while Suharto is clearly the most powerful state patron, he must judiciously cultivate and maintain support from key military, political, and bureaucratic leaders.

While all political interaction cannot be explained by patron-client relations, these ties at the state helm impair state policies and dilute control of state implementors. With little supervision, many state implementors are absorbed by patron-client

clusters, ignoring state rules in exchange for material or professional support. For logging, distorted state forestry policies and the inability of the state to monitor and enforce timber regulations drive destructive extraction and unsustainable management.

At least two conditions are essential for sustainable logging: the price must be high, reflecting the long-term costs of regeneration and management; and log extraction must be kept at a sustainable level. Indonesia has met neither condition. In the 1960s and 1970s, concessions were granted as gifts to appease or reward political and military elites -- with little capital or knowledge, ethnic Chinese and multinational companies were hired to log these concessions. With almost no state supervision, these areas were mined and logs were exported in huge quantities, especially to Japan. While the Indonesian state received a small portion of timber revenues, MNCs and Indonesian military, political, and bureaucratic elite made quick, easy money. At the same time, almost no effort was made to log areas on a sustainable basis or to regenerate devastated areas.

The ban on log exports and the push to process plywood in the 1980s, and the moves to develop pulp and paper plantations in the 1990s, have done little to improve timber management. Today, there is tremendous pressure on the commercial forests. There are few signs of improvement despite a more assertive Minister of Forestry, and government moves to improve logging management, establish an eco-label for sustainable timber, increase collection of timber

taxes and royalties, and crack down on illegal logging and smuggling. The government is also providing subsidies and pressuring companies to replant; not to regenerate commercial dipterocarp stands, but to build huge timber plantations to supply an expanding pulp and paper industry. Instead of 'reforestation,' this policy contributes to 'deforestation' as areas are cleared to establish plantations.

Concession operators -- especially ethnic Chinese -- wary of a sudden political upheaval and new leaders revoking concession rights, have few incentives for long-term management; instead, timber operators invest in real estate and stash money overseas. In addition, there is little state control over timber operations. As a result, legal concessions are badly managed, enrichment planting is limited, and illegal logging is rampant. Illegal logging is likely equivalent to legal logging, placing annual log production at around 70 million cubic metres, well above even the most optimistic estimates of sustainable production. Along with smuggling and schemes to evade timber taxes and royalties, illegal logging syphons state timber revenues. Forest charges are also remarkably low and the state is now estimated to capture only 15 to 30 percent of timber rents. As long as powerful state patrons like Suharto protect timber clients like Hasan (APKINDO and the Kalimanis Group) and Prajogo (Barito Pacific Timber), and as long as state implementors follow the rules of patron-client networks, the state will be too weak to improve logging management, regardless of the content of actual policies or the rhetoric of

state leaders.

While domestic political forces distort policies, undermine state revenue and drive unsustainable extraction, the North, especially Japan, has bolstered and accelerated this process. In the 1960s and 1970s, Japanese ODA, technology, investment and log purchases had a catalytic impact on unsustainable logging. ODA funds supported commercial timber surveys, feasibility studies, logging infrastructure projects, and corporate timber investments. Although Japan was not the largest investor in the Indonesian timber sector in the 1970s, Japanese corporate credit, joint ventures, logging equipment and technical advice were key forces that drove reckless logging. Huge amounts of logs were then shipped to Japan to feed domestic plywood processors, often leaving behind widespread damage. As well as expediting destructive logging, Japanese money -- which deluged Indonesia after the 1967 Foreign Capital Investment Law -- also provided critical financial slack to allow extensive patronage.

After log exports were banned in the mid-1980s, the key features of Japan's shadow ecology changed. Most Japanese trading companies withdrew or sold their shares in joint timber ventures. Today, there are few investments in Indonesian plywood or pulp and paper operations. Logging equipment is no longer shipped in substantial amounts, although there has been some technological support for processing. ODA has also changed. Since the early 1980s, few JICA forestry projects or OECF loans have been connected to corporate logging ventures. Instead, ODA tends to emphasize

commercial timber plantations. While these are positive trends, Japanese ODA projects in Indonesia still have serious environmental problems. There are few environmental experts, staff members have little field experience, and funds often support inappropriate technology purchases. These problems are aggravated by decisions made in Tokyo with little understanding of Indonesia's delicate outer island eco-systems. In fairness, there is limited Japanese government and corporate support for forestry conservation and regeneration, but not nearly enough to dent deforestation rates.

Finally, since 1985, Japanese log imports have ceased while plywood imports have soared. For both logs and plywood, prices have been far below the cost of sustainable management, feeding voracious Japanese consumption habits. During the era of log exports, Japanese trading companies played a pivotal role in depressing prices and promoting rapid, destructive logging. Today, these companies have been usurped by Apkindo. Under Hasan, and with Suharto's support, Apkindo has flooded the Japanese market with cheap, high-quality plywood. This strategy -- designed to destroy Japanese competitors -- has been successful in bankrupting many Japanese processors. But it has also lowered prices, encouraged wasteful consumption, and fostered unsustainable timber management. At the same time, Japanese plywood tariffs have undercut Indonesian state and corporate revenue, further reducing potential funds for forestry management and regeneration. In short, while some aspects of Japan's shadow ecology have changed over the last 30 years, three critical components -- low prices,

wasteful consumption, and import tariffs on processed wood -- have remained constant. As a result, Japan's shadow ecology continues to provoke and support unsustainable timber extraction. This in turn fuels pervasive patron-client relations.

Chapter Five

JAPAN, CLIENTELISM AND DEFORESTATION IN BORNEO MALAYSIA

Over the last three decades -- as in Indonesia -- unsustainable logging has been a key cause of deforestation in Borneo Malaysia. Wide areas are degraded and commercial timber stocks are now perilously low. The environmental group Sahabat Alam Malaysia maintains that: "Nowhere in the world are the forests being chopped with such ferocity and speed as in Sarawak."¹ Sabah has extracted timber with equal intensity. A 1990 ITTO report on Sarawak's timber industry claimed that if the "frenetic pace of logging continues at [the rate] of recent years, all primary forests will have been harvested in 11 years."² Even more dire predictions have been made for Sabah.

Links between top state patrons and timber operators in Borneo Malaysia -- similar to those in Indonesia -- distort state policies, weaken state enforcement, and drive unsustainable logging. Top political patrons, to maintain loyalty and support in fragmented societies, grant timber concessions to key political and business clients. Many concession holders then hire contractors to manage logging operations; contractors often use subcontractors to

¹Quoted in Hurst, Rainforest, p.102. Parts of this chapter are from Dauvergne, "Patron-client Politics," unpublished, 1992.

²Summarized by Anthony Rowley, "Logged Out," FEER, 13 December 1990, p.72. For the ITTO report, see ITTO, "The Promotion of Sustainable Forest Management: A Case Study in Sarawak, Malaysia," Report Submitted to the International Tropical Timber Council, ITTC (VIII)/7 7 May 1990.

extract or process the timber. These multiple layers of responsibility reduce accountability and transparency, increasing the difficulty of enforcement and effective management. Timber profits fuel powerful patron-client networks. These networks are highly unstable, rupturing as political parties vie for power in Borneo Malaysia's ethnically diverse landscape. As a result, concessions are frequently annulled as competing patron-client networks rise and fall. In this setting, there are no incentives for long-term management or conservation. Instead, concessionaires and timber companies race to extract as much timber as possible before tenuous political alliances and patron-client networks crumble. Timber mismanagement is further aggravated by poor supervision of middle and lower level state implementors. Enforcement officers -- in exchange for money, gifts, and career opportunities -- disregard concession rules, forge customs declarations, and ignore illegal logging and smuggling.

Unlike in Indonesia, Japanese aid and investment have not had a major impact on timber management in Borneo Malaysia. Japanese ODA has been limited to a few infrastructure projects and minor technical assistance projects to support plantations (Sabah) and processing (Sarawak). There have been few major investments in logging or timber processing. Yet despite limited investment and aid, Japan's shadow ecology has accelerated logging rates and bolstered unsustainable timber management. Japanese trading companies have purchased huge quantities of logs, shipped them to Japan, and as in Indonesia, manufactured plywood, especially *kon*

pane. Purchase and consumer prices have been far below replacement or sustainable management costs. So far, unlike in Indonesia, Japanese tariffs on processed wood imports have not significantly reduced state revenues necessary for effective timber management -- although, as Sabah and Sarawak reduce log exports and increase processed wood exports, import barriers have become relatively more important.

The first section of this chapter sketches the evolution from traditional to 'modern' patron-client relations in Borneo Malaysia. The second section documents the extensive ties between political patrons and timber clients in Sabah and Sarawak. The third part analyzes how pervasive patron-client ties thwart logging rules; foster illegal cutting, smuggling, and corporate tax and royalty evasion; and distort the allocation of concessions, policies to encourage processing, and efforts to promote reforestation, conservation and sustainable timber management. The final part assesses the impact of Japan's shadow ecology on timber management in Borneo Malaysia.

PATRON-CLIENT RELATIONS IN BORNEO MALAYSIA

It is quite difficult to ascertain the nature of patron-client relations in Sarawak and Sabah before 1963, when the two states joined Malaya, forming Malaysia. R. S. Milne claims that "Native chiefs and headmen, who existed in Sarawak and Sabah before the British came and who were institutionalized by them, sometimes functioned as patrons." In addition, he reasons that "where

communications were good and the population was relatively dense and well-organized (as among the coastal Malays in Sarawak), or where the degree of hierarchy was great, as among the 'aristocratic' Sarawak Kenyahs, patronage was probably fairly common."³ Patron-client relationships also existed among the Chinese with wealthy businessmen in the role of patrons. The Ibans of Sarawak probably had less pervasive patron-client links since their society was relatively egalitarian.⁴

Near the end of North Borneo Company rule in Sabah and Brooke rule in Sarawak, and throughout direct British colonial rule from 1946-1963, the populations of both states were "relatively unmobilized, the functions of government quite limited, and administrators in the field efficient and helpful, if paternalistic, within the restricted scope of operations." Milne notes further that "life was not particularly unpredictable nor personal security particularly tenuous."⁵ Patron-client relations developed and flourished due more to a desire to obtain opportunities and benefits than a need for protection. The British, in the latter part of their colonial rule, reshaped patron-client relations by appointing indigenous people to administrative positions, thus encouraging new patron-client links to form on a state rather than local scale. At the same time, indigenous people increasingly entered business, especially the

³Milne, "Patrons, Clients and Ethnicity," p.898.

⁴Ibid., pp.898-899.

⁵Ibid., p.896.

timber industry, later becoming prominent state politicians.⁶

When Sabah and Sarawak joined Malaya in 1963, patterns of patron-client links were again altered as British colonial administrators were replaced by state and federal officials. New patron-client clusters and networks formed around state leaders while many old clientelist ties reshaped or dissolved. Patron-client networks also expanded as government institutions provided the resources to sustain large groups without deep loyalties or strong friendships.⁷ Patron-client relations underwent further changes with the start of directly elected state legislatures in 1967 in Sabah and 1969-1970 in Sarawak. Patron-client networks became even larger, vertically linking urban areas to more remote rural areas. Milne claims that "dyadic patron-client relations now extended, in chain fashion, right to the top of state politics."⁸ Large 'peripheral' client followings became important during elections. Paying headmen to influence the voting of their clientele, buying votes, and swaying the allegiance of politicians with instrumental rewards were all evident by the 1967 election in Sabah and the 1969-1970 election in Sarawak.⁹

Ethnicity (often distinguished by religion) and patron-

⁶These included Fuad Stephens and Tun Mustapha Harun in Sabah and Datuk Amar James Wong Kim Min in Sarawak. R.S. Milne and K.J. Ratnam, Malaysia - New States in a New Nation (London: Frank Cass, 1974), pp.316-318.

⁷Means, Malaysian Politics, pp.298-299.

⁸Milne, "Patrons, Clients and Ethnicity," p.899.

⁹See Milne and Ratnam, Malaysia - New States in a New Nation, for a discussion of these practices.

client relations are closely linked in Sabah and Sarawak. Ethnic groups are generally divided into three categories: indigenous Muslims, indigenous non-Muslims, and non-indigenous. In Sarawak, indigenous Muslims (Malays and Melanaus) constitute 26 percent of the population; about 44 percent are indigenous non-Muslims (including Iban, Bidayuh, Orang Ulu, Kenyahs, and Kayans);¹⁰ and 30 percent are non-indigenous (mostly Chinese).¹¹ Around 49 percent of Sabah's population are indigenous Muslims (Bajaus, Malays, and immigrants), 34 percent are indigenous non-Muslims (Kadazans and Muruts), and 16 percent are non-indigenous (primarily Chinese). The Kadazans are the largest ethnic group in Sabah, comprising 30 percent of the population. In total, just over half of the people in Sabah and a little more than a quarter in Sarawak are Muslims. Although some ethnic Chinese have converted to Islam in Sabah, most Chinese in Borneo Malaysia follow a mixture of Confucianism, Christianity, and Buddhism. Indigenous non-Muslims are generally Christians or animists.¹²

Today, Sarawak and Sabah are ruled by multi-ethnic coalitions with some ethnically mixed political parties. In Sarawak, Malay

¹⁰The Bidayuh and Orang Ulu are sometimes grouped with the Iban and called Dayaks.

¹¹The role of Sarawak's ethnic groups in politics is discussed in Jayum A. Jawan, The Ethnic Factor in Modern Politics: The Case of Sarawak, East Malaysia, Occasional Paper, no. 20 (University of Hull: Centre For South-East Asian Studies, 1991). For a specific discussion of the Sarawak Chinese, see John M. Chin, The Sarawak Chinese (Oxford: Oxford University Press, 1981).

¹²Diane K. Mauzy and R.S. Milne, Malaysia: Tradition, Modernity and Islam (Boulder: Westview Press, 1986), p.68.

and Melanau Muslims are the most powerful political and bureaucratic force. In Sabah, Christian Kadazans dominated from 1985 until early 1994. In the new coalition government, Malays and Muslims are pivotal forces. Since no single ethnic or religious group can dominate politics in Borneo Malaysia, patron-client networks that integrate elites from different ethnic groups and different religious backgrounds, and which often cross-cut official party lines, are crucial for maintaining power. This is particularly relevant in Sarawak since many of the ethnic groups have regional divisions. Michael Leigh notes that the "peculiar ethnic complex, with three major groups, not one of which approaches a majority of the population, has facilitated accommodation in Sarawak." Political divisions within ethnic groups have encouraged compromise, "forcing the factions to seek allies outside their group in the quest for political power."¹³ The situation in Sabah is quite similar. Bruce Gale argues that "questions of race, religion and class, relevant to the study of West Malaysian politics, are less important in Sabah than the existence of strong clientelist networks."¹⁴

Some of the most important patron-client links are between powerful indigenous politicians and Chinese business leaders. After Sarawak and Sabah joined Malaya, the general mainland pattern

¹³Michael B. Leigh, The Rising Moon: Political Change in Sarawak (Sydney: Sydney University Press, 1974), p.162, p.161.

¹⁴Bruce Gale, "Politics at the Periphery: A Study of the 1981 and 1982 Election Campaigns in Sabah," in Bruce Gale, ed., Readings in Malaysian Politics (Selangor Malaysia: Pelanduk Publications, 1986), p.25.

of Malay political power and Chinese economic influence was encouraged in the two new states. In most instances, indigenous political leaders assumed the role of patrons and the Chinese assumed the role of clients. Indigenous political patrons provided political protection and access to resources, licences, or contracts in exchange for financial and electoral support from Chinese clients.

Patron-client ties in Borneo Malaysia have been highly unstable since the first elections. One sign of this instability is frequent crossovers from one political party to another. For example, less than a year after the 1987 state election in Sarawak, six members of the Parti Bangsa Dayak Sarawak (PBDS), which lost the election, were 'bought over' by the ruling Barisan Nasional (BN).¹⁵ Changing alliances and party cross-overs were such a problem in Sabah in the mid-1980s that an 'anti-hop' law was passed which forbid politicians from switching parties without losing their seats.¹⁶ This law was later struck down by a High Court, and shifting party allegiances dominated the 1994 election.¹⁷ The Parti Bersatu Sabah under incumbent Chief Minister Pairin won this election by a slim margin. But defections -- including his brother, Jeffrey Kitingan -- toppled the government. According to

¹⁵Marcus Colchester, Pirates, Squatters and Poachers: The Political Ecology of Dispossession of the Native People of Sarawak (London: Survival International, INSAN, 1989), p.32.

¹⁶Michael Vatikiotis, "Disarray in the ranks," FEER, 10 September 1992, pp.24-26.

¹⁷See "PBS wins by two seats," Borneo Post, 20 February 1994, p.1.

some sources, "many of the defectors"...were..."enticed to change sides with money and promises of position."¹⁸ Chinese business-clients are particularly prone to change alliances. One author noted that the Chinese in Sarawak "go with whoever is the stronger, demanding more timber concessions in return for their support."¹⁹

Relations between the federal and state governments have further contributed to unstable and fluid patron-client clusters in Borneo Malaysia. Francois Loh and Kok Wah write, "it is clear...that whoever wishes to govern in Sarawak must receive the blessings of Kuala Lumpur."²⁰ In both states, federal pressure has contributed to political realignment. One example occurred in 1976 when the federal government engineered the downfall of Tun Mustapha's government in Sabah and helped establish a new multi-ethnic coalition.²¹

In sum, compared to traditional ties, modern patron-client networks in Sabah and Sarawak are more unstable, particularly since the start of competitive elections. With the influx of immigrants, especially into Sabah, unstable 'peripheries' have grown

¹⁸Michael Vatikiotis, "Dominant Front," FEER, 31 March 1994, 18. Also see Michael Vatikiotis, "Settling Scores," FEER, 24 March 1994, p.23.

¹⁹Suhaini Aznam, "Murmurs in the forest," FEER, 27 July 1989, p.30.

²⁰Francis Loh and Kok Wah, "Early Elections In Sarawak?: Understanding Electoral Politics in Sarawak," Aliran 11, no 7 (1990), p.5.

²¹Mauzy and Milne, Malaysia, p.117.

considerably in recent years.²² Political relations with Kuala Lumpur have also contributed to fluid patron-client clusters -- federal pressure can cause clusters to rupture and realign in an attempt to placate or gain support from Kuala Lumpur. Patron-client ties are now based less on loyalty, obligation and honour and more on material benefits. A common feature of elections in Borneo Malaysia is the downward flow of jobs and cash from patrons and the upward flow of votes from clientele. As Michael Vatikiotis notes, "winning votes in Sabah is an expensive exercise; state politics is notoriously unpredictable and plagued by shifting loyalties and an appetite for cash."²³ Finally, a key characteristic of patron-client links in Borneo Malaysia is the exchange of political favours by indigenous elite for financial and electoral support from Chinese business clients.

Political power, patronage and timber are inseparable in Borneo Malaysia. Timber is more important to the economies of Sabah and Sarawak than to Indonesia or the Philippines. For this reason, virtually all political leaders have had extensive ties to timber operators, and profits from illegal and legal logging fund

²²Many of these immigrants, both legal and illegal, manage to get on the electoral rolls, often assisted by political parties trying to expand their support base. From 1986 to 1989, the number of new voters in Sabah increased by more than 25 percent, many of whom appear to be illegal immigrants. Michael Vatikiotis, "Floating Voters," FEER, 18 June 1992, p.30.

²³Michael Vatikiotis, "Disarray in the ranks," FEER, 10 September 1992, p.26. For example, during the Usukan by-election in Sabah on May 11, 1991, all parties reputedly used money to influence voters. Suhaini Aznam, "Double Blow: Sabah party loses by-election and a leader," FEER, 23 May 1991, pp.11-12.

political parties and powerful patron-client networks. The next section provides background on the timber industries of Sabah and Sarawak. I then document links between key political patrons and timber clients, before briefly examining domestic and international opposition to elite control over Borneo Malaysian timber resources.

PATRON-CLIENT POLITICS AND TIMBER IN BORNEO MALAYSIA

Background

From 1919 to 1952, the timber industry in Sabah was monopolized by the British North Borneo Timber Company. During this period, the Company logged limited quantities of high quality hardwoods. In 1952, logging rates increased after three large foreign firms and eight local companies began operations.²⁴ Log extraction accelerated in the 1970s and early 1980s. From 1971 to 1989, Sabah exported on average 11.7 million cubic metres of timber every year.²⁵ In 1973, primary forests covered 55 percent of Sabah; by 1983 this had dropped to 25 percent.²⁶ Large-scale

²⁴Malcolm Gillis, "Malaysia: public policies and tropical forest," in Gillis and Repetto, eds., Public Policies, p.123. For historical background on forestry management in Sabah, see A.J. Fyfe, "Forestry in Sabah," Malayan Forester 27 (1964), pp.82-95. For a description of timber extraction methods in Borneo Malaysia in the first decade after WWII, see G.S. Brown, "Timber Extraction Methods in N. Borneo," The Malayan Forester 18 (July 1955), pp.121-132; and Kadir Mohd. Nastan, "A Note on Logging Methods Used By A Large Timber Company On The East Coast of Sabah," Malayan Forester 29, no. 4 (1966), pp.303-306.

²⁵Michael Vatikiotis, "Malaysia's war," FEER, 4 June 1992, p.65.

²⁶Repetto, The Forest For The Trees?, p.56; and Gillis, "Malaysia: public policies" p.141.

logging began later in Sarawak than in Sabah, although by 1950, logging was an important part of Sarawak's economy.²⁷ As commercial log stocks diminished in Sabah in the early 1980s, log production in Sarawak gained momentum, reaching 24 million cubic metres in the late 1980s. Two key factors have contributed to substantial increases in Borneo Malaysian log extraction. First, Northern technology -- including light and efficient chain saws, powerful tractors and winches, and bulldozers -- has enabled rapid and easy logging, even in the hills.²⁸ Second, massive Japanese corporate log purchases -- as commercial log stocks faded in the Philippines in the 1970s, and after Indonesia banned log exports in the early 1980s -- have provided irresistible opportunities to make fast money. By the late 1980s, Borneo Malaysia supplied approximately 90 percent of Japan's tropical log imports from Southeast Asia.

There are important differences between commercial timber stocks in Sabah and Sarawak. At the end of 1992, Sabah -- with a total land area of 7.37 million hectares -- had 4.41 million hectares of forests, covering almost 60 percent of the land area.²⁹ The state intends to maintain at least 50 percent of land area as

²⁷For historical background on Sarawak's timber industry, see B.E. Smythies, "History of Forestry in Sarawak," Malayan Forester 25-26 (1962-63), pp.232-253. A general discussion of Malaysia's forests is provided by S. Robert Aiken and Colin H. Leigh, Vanishing Rain Forests: The Ecological Transition in Malaysia (Oxford: Clarendon Press, 1992).

²⁸Colchester, Pirates, p.34.

²⁹Rahim Sulaiman, "Forest Plantation in Sabah - Development Issues - " Berita Hutan (September 1993), p.14.

permanent forest cover. Under Sabah's forest policy, 3.35 million hectares of forests -- or 45.4 percent of the land area -- are classified as Forest Reserves and under the control of the Forestry Department. Stateland Forests -- set aside for agricultural conversion or development projects -- cover 1.14 million hectares, and are not controlled by the Forestry Department. Around 30 percent of Sabah's land is cultivated or urbanized.³⁰ The Forest Reserves contain around 850,000 hectares of protection forests, and about 2.5 million hectares of Commercial Forests -- mostly lowland and hill dipterocarp forest set aside for sustainable timber production. Most Commercial Forests have already been logged. By 1993, loggers had harvested over 2 million hectares; only 413,000 hectares of primary forests remained in the Commercial Forests.³¹

The populations of Sarawak and Sabah are almost identical (1.7 million). However, Sarawak is 60 percent larger than Sabah and is nearly as large as Peninsular Malaysia. Sarawak has 8.7 million hectares of forest, covering almost 71 percent of the total land area of 12.3 million hectares. The dominant forest type is mixed dipterocarp hill forest. There are three million hectares of

³⁰Sabah Forestry Department, Forestry in Sabah (Sandakan: Sabah Forestry Department, 1989), p.51, pp.53-54, p.58. This chapter relies mostly on government or corporate data. Unlike in Indonesia and the Philippines, there are few NGOs to provide alternative estimates. As would be expected with government and business statistics, these figures tend to represent the most optimistic scenario.

³¹Sulaiman, "Forest Plantation in Sabah," p.14.

degraded forests.³² Only 600,000 hectares -- or 5 percent of land area -- have been cultivated or urbanized. Six million hectares are designated as Permanent Forest Estate -- set aside for sustainable timber production.³³ Around 1 million hectares are classified as Totally Protected Areas (Wildlife Sanctuaries and National Parks). The rest is State Land Forest, areas which can be logged and then converted to agriculture or development projects.³⁴ Like in Sabah, loggers have extracted much of the valuable timber in Sarawak. From 1962 to 1985, timber companies logged 30 percent of Sarawak's forest area.³⁵ By 1989, only 4 to 5 million hectares of primary forests remained.³⁶

The timber industry has been a crucial source of economic growth in both Sabah and Sarawak. From 1971 to 1976, the total value of timber exports from Sabah tripled and from 1977 to 1982 doubled.³⁷ Based mainly on log exports, Sabah's economy grew at an average rate of 8 percent a year from 1971 to 1983, at one point

³²The government blames slash and burn farmers for this degradation.

³³In 1991, Sarawak increased its Permanent Forest Estate from 4.5 million hectares to 6 million hectares. Noorzita Samad, "European Parliament to review timber ban, New Straits Times, 14 May 1992, p.16.

³⁴Sarawak Forest Department, Forestry in Sarawak, Malaysia (Kuching: Sarawak Forest Department, 1993), p.4, p.10.

³⁵Means, Malaysian Politics, p.196.

³⁶Interviews, WWF Malaysia, Petaling Jaya, 10 March 1994.

³⁷Repetto, The Forest For The Trees?, p.54.

the highest in Southeast Asia.³⁸ Like Sabah, log exports have underpinned Sarawak's economy in the 1980s and early 1990s.³⁹ In 1991 and 1992, total timber production declined somewhat in Sabah, to around 11 million cubic metres. In Sarawak, log production climbed to 24 million cubic metres in the late 1980s and still stood at 18 million cubic metres in 1992. Despite a log export ban in Sabah and greater export restrictions in Sarawak in 1993, Borneo Malaysia continues to harvest huge quantities of tropical logs. In 1993, Sabah set log production at 7.9 million cubic metres; Sarawak established a target of 16.5 million cubic metres (9.5 million cubic metres from the Permanent Forest Estate and the rest from State Land Forest).⁴⁰ In 1993, Sabah's Chief Minister announced that annual log production would be reduced to 6 million cubic metres over the next few years.⁴¹ While the Sabah government considers 6 million cubic metres sustainable, according to the

³⁸James Clad, "Boom and bust leave Sabah's vault empty," FEER, 6 February 1986, p.64. More recently, Sabah's economy has fared poorly. In 1992-93, GDP only grew by 3 percent, compared with a 9 percent national average. Michael Vatikiotis, "Slap On The Wrist," FEER, 27 January 1994, p.14.

³⁹Sarawak's GDP growth slipped from over 8 percent at the start of the 1990s, to 5 percent in 1992, and 3.7 percent in 1993. Doug Tsuruoka, "Awakening Giant," FEER, 21 July 1994, p.68.

⁴⁰For Sabah, see "Sabah slaps immediate ban on log exports," The Straits Times, 30 April 1993, p.23. For Sarawak, see "Loggers turn to copters as prices rise," The Borneo Post, 19 November 1993; Syed Abu Bakar and Pang Hin Yue, "Taib: Pay attention to these areas," New Straits Times, 13 May 1993, p.5; Fadzil Ghazali, "Transparency in forest policy urged," The Borneo Post, 13 May 1993; and "CM: We'll fully practise sustainable devt by 1995," The Borneo Post, 28 January 1993.

⁴¹"Logging in Sabah reduced substantially, Chief Minister," Asian Timber, January 1993, p.4.

Malaysian Primary Industries Minister, Sabah's annual sustainable yield may be as low as 3 million cubic metres.⁴² Until 1995, the Sarawak Forest Department plans to maintain timber production at the 1993 level. From 1995 to 2000, the Department will hold production in the Permanent Forest Estate at about 9.5 million cubic metres and decrease extraction from State Land Forest to between 5 and 6 million cubic metres.⁴³ Sarawak maintains log production is now sustainable, a claim emphatically denied by environmentalists.

While logging is the economic backbone of Sabah, and a key resource in Sarawak, timber profits mainly benefit a small political, bureaucratic, and corporate elite. Only marginal amounts seep to outlying areas, mostly during elections as patron-client networks mobilize peripheral supporters. Cash payments by the state just before elections and straightforward 'vote-buying' redistribute a tiny portion of timber wealth in Sabah. In Sarawak, loggers sometimes put local leaders on a retainer in exchange for support and an informal agreement to suppress complaints about environmental degradation.⁴⁴ Few native people, however, have benefitted from logging. For example, even though much of

⁴²The Minister's figures are based on data from the Sabah Forestry Department and assume production from the Permanent Forest Reserves, Stateland forests, and primary forests. "Figures on logging provided by Sabah Forest Dept: Lim," Borneo Post, 28 February 1993.

⁴³Sarawak Forest Department, Forestry in Sarawak, p.37.

⁴⁴Stan Sesser, "A Reporter At Large: Logging the Rain Forest," The New Yorker, 27 May 1991, p.56.

Sarawak's logging is on traditional Iban land, Ibans have not prospered. According to Malaysian government figures, almost half of Iban households fall below the poverty line.⁴⁵ One reason is that Ibans, who are 95 percent rural, are not well integrated into patron-client clusters or networks, perhaps partially due to their historically egalitarian society. Although an awakening of Dayak (Iban and Bidayuh) consciousness, similar to Kadazan-Dusun in Sabah, may eventually bring the Dayak into the patron-client fold, to date these aspirations have been unsuccessful.⁴⁶

STATE PATRONAGE AND TIMBER IN SABAH

From 1967 to 1974, the United Sabah National Organization (USNO), under the firm grip of Tun Mustapha Harun, dominated Sabah politics. Based mainly on timber, Mustapha built an extensive patron-client network that superseded all others, allowing him to rule in an autocratic way. He controlled the state legislative assembly and the bureaucracy. Mustapha was also head of the Sabah Foundation. Under his leadership, the Foundation -- established in 1966 to support education and social projects -- "was rapidly transformed to become a prime vehicle for administering state

⁴⁵James Clad, "Slow the hill rises," FEER, 30 May 1985, p.36.

⁴⁶Some Ibans do receive a small portion of timber profits. The anthropologist V.H. Sutlive reported that when a timber company logged communal forests, money was paid out to the district leader, the longhouse headman, and the Ibans living in the longhouse. He found that for every 10 dollars, 6 went to the district head, 2 to the longhouse leader and the rest was divided among the longhouse residents. V.H. Sutlive's work is discussed in Peter Searle, Politics in Sarawak 1970-76: The Iban Perspective (Singapore: Oxford University Press, 1983), p.110.

exploitation and development of timber resources, with the benefits being distributed on a patronage basis to political supporters."⁴⁷ To help win the 1974 election, Mustapha used his control over the Foundation's timber profits to award all adult Sabah citizens M\$60. He also used timber profits and concession licences to appease and mute potential adversaries. According to Means, "patronage and the 'irregular' rewards of office were so great that the visible opposition to Mustapha's policies had been reduced to insignificance."⁴⁸ During this period, Mustapha's hold on Sabah was so tight, he was able to spend 9 or 10 months a year abroad, ruling through key clients such as Syed Kechik, Director of the Sabah Foundation. The dominance of Mustapha's patron-client network allowed him to funnel a major portion of timber profits to his own pocket, supporting extravagant personal comforts and opulent homes in Australia and England. State funds also provided a luxurious official residence, a Boeing 707, and two executive jets.⁴⁹

After the 1974 election, Mustapha's control began to erode, in part due to an escalating dispute with the federal government over oil revenues. In 1975, under federal pressure, Mustapha 'retired' and was replaced by his loyal follower, Said Keruak. From behind

⁴⁷Means, Malaysian Politics, p.42. For background on the Sabah Foundation (Yayasan Sabah), see Yayasan Sabah, Yayasan Sabah: 1966-1991 (Kota Kinabalu: Yayasan Sabah, 1992). For more details on Mustapha's early years in power, see Milne and Ratnam, Malaysia - New States in a New Nation.

⁴⁸Means, Malaysian Politics, pp.42.

⁴⁹Ibid.

the scenes, Mustapha maintained power until April 1976, when USNO lost the election to Fuad Stephens' Bersatu Rakyat Jelata Sabah (Berjaya) party. In June, Fuad Stephens' reign ended abruptly when he died in a plane crash. He was replaced by Harris Salleh who ruled a multi-ethnic coalition until 1985. Compared to the Mustapha years, Harris Salleh's government reduced extravagant waste and flagrant displays of personal wealth. Yet, patron-client networks and state patronage were still central features of Harris Salleh's reign. Timber concessions and profits were at the core of many patron-client networks. By the early 1980s, Berjaya "perfected its techniques of retaining power through an emphasis on development projects, which tended to be distributed by political patriarchs and through patronage systems linked to the government." Berjaya easily won the 1981 election, in part "by a judicious distribution of projects and other benefits just prior to the election."⁵⁰ Foreign assistance provided crucial support for this extensive state patronage; by 1985 Sabah's foreign debt was M\$2.7 billion.⁵¹

The Sabah Foundation has dominated Sabah's logging industry. In 1970, the Foundation was granted a hundred year licence to 855,000 hectares of forest, "to be developed on behalf of all citizens of the state." The Foundation gained even more control in the late 1970s when it became "a statutory body of the state

⁵⁰Both quotes are from Ibid., p.154.

⁵¹Ibid., p.155.

government."⁵² In 1984, the Foundation was awarded another large concession and now controls close to 1 million hectares of forest, one seventh of Sabah's land area.⁵³ The Sabah Foundation has had close ties to Japanese trading companies. In 1986, the Foundation extracted 1.2 million cubic metres of logs; 72 percent went to Japan.⁵⁴ Besides the Sabah Foundation, there are also some powerful private timber companies. Aokam Perdana Bhd, under the control of Teh Soon Seng, operates Sabah's largest timber processing plant. Aokam Perdana receives logs at preferential prices from Idris Hydraulic Bhd which controls a 190,000 hectare concession in Sabah. Idris Hydraulic has close connections to the United Malays National Organization.⁵⁵

Not surprisingly, top politicians have maintained tight control of the Sabah Foundation. From 1985 until March 1994, Sabah was ruled by the Parti Bersatu Sabah (PBS), a multi-ethnic party led by Datuk Seri Joseph Pairin Kitingan, and dominated by Catholic Kadazans.⁵⁶ Even though Chief Minister Pairin was chairman of the

⁵²Both quotes are from Gillis, "Malaysia: public policies," p.123.

⁵³Yayasan Sabah, Yayasan Sabah and Innoprise Corporation Sdn Bhd (Kota Kinabalu: Yayasan Sabah, 1993), p.1.

⁵⁴Sabah Forestry Department, Forestry in Sabah, p.85.

⁵⁵Raphael Pura, "Timber Companies Blossom On Malaysian Stock Market," AWSJ, 30 November 1993, p.12.

⁵⁶The new Chief Minister of Sabah is Tan Sri Sakaran Dandai, leader of the Sabah wing of the United Malays National Organization (UMNO), a key party in the Barisan Nasional (BN) coalition which is affiliated with the federal government. For background on the BN coalition and the lead up to the February 1994 election, see "Pairin: I'm not ashamed," Sabah Times, 3 February 1994, p.1; "Why

Foundation, one of his first decisions after gaining power was to appoint his brother, Dr. Jeffrey Kitingan, as director of the Sabah Foundation. In 1988, the PBS government formed Innoprise to handle the commercial affairs of the Sabah Foundation -- including shipping, hotels, tourism, logging, and reforestation.⁵⁷ According to a spokesman, since then the Foundation has concentrated on education and social issues, and stressed 'self-reliance'. While scholarships are still available, the Foundation no longer provides annual cash payments to all citizens over the age of twenty-one.⁵⁸ Berjaya has ardently attacked the creation of Innoprise and the new emphasis on self-reliance. According to Berjaya secretary-general Datuk Haji Mohd Noor Mansoor, "the creation of Innoprise has effectively put a tremendous amount of funds under the control of the PBS leader and his brother for distribution as patronage to selected supporters of the Kitingans."⁵⁹ Berjaya deputy president

we quit the PBS," Sabah Times, 4 February 1994, p.1; Haryati A. Karim, "Tun M snubs Pairin," Sabah Times, 6 February 1994, p.1; "Kadazans splitting PBS," Sabah Times, 6 February 1994, p.1; "Pairin gives up on the Chinese," Sabah Times, 7 February 1994, p.1; "It's BN vs PBS," Sabah Times, 8 February 1994, p.1; "Be bold, Yong tells Chinese," Sabah Times, 9 February 1994, p.1; "BN fulfils pledge," Sabah Times, 13 February 1994, p.1; "Delivered RM\$2 mil for 30 schools," Daily Express, 13 February 1994, p.1; "Tun M: Vote PBS-Plus," Borneo Mail, 14 February 1994, p.1; "Chinese say no to PBS," Sabah Times, 14 February 1994, p.1; and "RM1.3 billion scandal," Sabah Times, 15 February 1994, p.1.

⁵⁷For background on Innoprise, see Innoprise, Innoprise Corporation Sdn Bhd: 1991 (Kota Kinabalu: Innoprise, 1992); and Yayasan Sabah, Yayasan Sabah.

⁵⁸Interview, Senior executive, Yayasan Sabah [Sabah Foundation], Kota Kinabalu, 14 February 1994.

⁵⁹Statement by Datuk Haji Mohd Noor Mansoor, "Yayasan isn't tax exempt, says Matnoor," Sabah Times, 12 July 1990.

Datuk Lim Guan Sing argues that the PBS uses Innoprise and the Sabah Foundation "for political patronage among its supporters."⁶⁰

POLITICAL LEADERS, PATRONAGE, AND TIMBER IN SARAWAK

Since 1966, the state Ministers of Forestry in Sarawak have all been from the Malay-Melanau elite and have been members of the Parti Bumiputra Bersatu (PBB), the most powerful member of the current Barisan Nasional coalition government. Since the state Minister of Forestry has the exclusive power to grant or deny timber concessions, "both between 1970-81 and ever since 1985, the Chief Ministers have jealously kept this portfolio in their own office; for it is a portfolio of extreme power."⁶¹ State leaders have also maintained close links to lucrative log exports. According to Colchester, "all whole logs are exported through the company, Archipelago Shipping, an import-export company part-owned by the state and part-owned by a relative of the Chief Minister [Taib]."⁶²

The most powerful patron in Sarawak is Chief Minister Datuk Tan Sri Abdul Taib Mahmud. The Asian Wall Street Journal describes him as one of Malaysia's most "flamboyant" politicians. He has a

⁶⁰A statement by Lim Guan Sing, "Allegations substantiated," Sabah Times, 11 July 1990, p.2.

⁶¹Colchester, Pirates, p.35. For a summary of Sarawak politics from 1983 to 1987, see Means, Malaysian Politics, pp.165-172. There have been five Forestry Ministers: Hj Abdul Taib Mahmud (1966-67); Datuk Tajang Laing (1967-70); Chief Minister Datuk Abdul Rahman Yaakub (1970-81); Datuk Haji Noor Tahir (1981-85); Chief Minister Datuk Abdul Taib Mahmud (1985-to present).

⁶²Colchester, Pirates, p.36.

penchant for extravagant purchases, and owns a vintage Rolls-Royce, a mansion in Kuching, and the late Liberace's grand piano.⁶³ Timber underpins Taib's personal wealth and political power. The 1987 election in Sarawak provided a rare glimpse into his links to logging. During this campaign, former Chief Minister Tun Abdul Rahman Yakub and his nephew, incumbent Chief Minister Taib, openly accused each other of using timber concessions and money to strengthen their political positions.⁶⁴ Their dispute was largely personal and factional -- Rahman Yakub was angry with Taib for not following his 'advice' even though Rahman Yakub had personally supported Taib's ascent to the Chief Ministership in 1981. Chief Minister Taib, in an attempt to weaken the political position of his increasingly critical uncle, froze 25 timber concessions worth about M\$22.5 billion (US\$9 billion) which were linked to Rahman Yakub's clientele. This sparked a public war to expose each others' links to timber money.⁶⁵ Taib's group provided documents indicating that Rahman Yakub, during his tenure as Chief Minister, had "set up a very complex web using nominees and shell companies to cover up ownership of large tracts of the best timber in

⁶³Raphael Pura and Stephen Duthie, "How Ekran Bhd. Outfoxed Rival For Power Deal," AWSJ, 2 February 1994, p.12.

⁶⁴Chief Minister Taib and the Barisan Nasional coalition government has ruled Sarawak since 1981. For a pro-government account of Taib's reign, see James Ritchie, A Political Saga: Sarawak 1981-1993 (Singapore: Summer Times, 1993).

⁶⁵Zainon Ahmad, "Timber freeze sparks 'war'," New Straits Times, 10 April 1987, in Yu Loon Ching, Sarawak: The Plot That Failed 10 march 87 - 17 april 87 [A collection of newspaper articles] (Singapore: Summer Times, 1987), p.66.

Sarawak."⁶⁶ It was divulged that all eight of Rahman Yakub's daughters, many other family members, friends, associates and his office staff had large timber holdings. Documents were also released that showed Chief Minister Taib had distributed similar amounts of timber concessions to his close family, friends and clients.⁶⁷ In total, it was revealed that Taib and his clients controlled approximately 1.6 million hectares of timber while Rahman Yakub and his clients controlled around 1.25 million hectares, which together comprise over 30 percent of the total forest area of Sarawak.⁶⁸

Chief Minister Taib's repeal of timber concessions held by Rahman Yakub's group was an important reason behind Taib's subsequent landslide election victory. Rahman Yakub's patron-client network lost its main source of patronage and many members defected, especially Chinese ones. Chief Minister Taib reportedly gained the support of many Chinese politicians by offering timber concessions to leaders of the Chinese-based Sarawak United People's Party.⁶⁹

Other influential ministers in Sarawak also have direct links to timber concessions. For example, Datuk Amar James Wong Kim Min,

⁶⁶"More of timber licences 'kept' in Rahman's circle exposed," People's Mirror, 13 April 1987, in Ching, Sarawak, p.69.

⁶⁷For a list of political connections to timber companies, see Logging in Sarawak (Selangor, Malaysia: INSAN, 1989), pp.73-74.

⁶⁸Nick Seaward, "At loggerheads with power," FEER, 2 June 1987, p.32.

⁶⁹See Suhaini Aznam, "Wood for the trees," FEER, 5 December 1991, pp.55-57.

who is President of the Sarawak National Party (SNAP) -- a key member of the Barisan Nasional government -- and Minister of the Environment and Tourism, is head of Limbang Trading. This company controls about 300,000 hectares of timber concessions in Sarawak. As Minister of the Environment, Datuk Wong has a well-known reputation for supporting logging and dismissing environmental degradation. In 1988, he explained that five years after logging primary forests, "all the animals are back...with more fruits and nuts than before...logging is good for the forest."⁷⁰ In the same interview, when the President of Survival International asked if he was concerned with the effect of deforestation on weather patterns, he relied: "We get too much rain in Sarawak; it stops me playing golf."⁷¹ Limbang Trading has reportedly sold timber on the government's protected species list; a list established by the Select Committee on Fauna and Flora, chaired by Datuk Wong.⁷²

In Sarawak, around half a dozen Malaysian-Chinese companies control timber extraction.⁷³ These corporations are linked to top

⁷⁰Quoted in "International experts say Sarawak natives badly affected by logging," Utusan Konsumer, (March 1988), in World Rainforest Movement and Sahabat Alam Malaysia, The Battle For Sarawak's Forests, second edition, (Penang, Malaysia: World Rainforest Movement and Sahabat Alam Malaysia, 1990), p.54.

⁷¹Robin Hanbury-Tenison, [President of Survival International], "No Surrender in Sarawak," New Scientist, 1 December 1990, p.29.

⁷²"International Experts," Utusan Konsumer, in World Rainforest Movement and Sahabat Alam Malaysia, The Battle, p.54.

⁷³Doug Tsuruoka, "Awakening Giant," FEER, 21 July 1994, p.70. According to the Star, 90 percent of Sarawak's timber industry is controlled by Foo Chow Chinese. "The pioneers of timber industry," The Star, 19 September 1991, p.11.

state leaders, supplying financial and electoral support in exchange for concession licences and contracts, political protection and bureaucratic exemptions. Malaysia's largest timber operator is Datuk Tiong Hiew King. He heads the Rimbunan Hijau Group of companies which controls 800,000 hectares of timber concessions and logging contracts in Sarawak. Rimbunan Hijau also operates huge logging ventures in Papua New Guinea, accounting for 60 to 80 percent of timber exports. The 1993 Chinese edition of Forbes magazine estimated his net worth at M\$2 billion.⁷⁴ Datuk Tiong has powerful political ties. He is an appointed federal Senator. He is also a key figure in the Sarawak United People's Party, and a close friend of Sarawak Deputy Chief Minister Wong Soon Kai. He strongly backs Chief Minister Taib and the Barisan Nasional coalition government, and has secure links to local politicians. Taib's sister, Aisah Zainab Mahmud, and the Sarawak government are partners in one of his logging and plywood operations. In another logging venture, Datuk James Wong and Datuk Tiong are partners in a 180,000 hectare site near Limbang.⁷⁵ Datuk Tiong has also worked closely with Japanese companies. Japanese technical advisors have influenced the management of his plywood mills; through a Hong Kong affiliate, two of these advisors are

⁷⁴Summarized in Raphael Pura, "Timber Baron Emerges From the Woods," AWSJ, 15 February 1994, p.1.

⁷⁵Raphael Pura, "Deal Moves Berjaya Into Timber," AWSJ, 7 December 1993, p.1, p.4; Raphael Pura, "In Sarawak, a Clash Over Land and Power," AWSJ, 7 February 1990, p.1; and Raphael Pura, "Timber Baron Emerges From the Woods," AWSJ, 15 February 1994, p.1, p.4.

minority shareholders in Tiong's timber empire. According to one source, Datuk Tiong's companies are "almost Japanese in their operations."⁷⁶

Datuk Ting Pek Khiing is another powerful ethnic Chinese businessman in Sarawak. He is Chairman of the Ekran Company which controls 600,000 hectares of timber concessions in Sarawak. In early 1994, this company was awarded a contract to build the huge Bakun hydroelectric dam. This is the most expensive infrastructure project in Malaysian history. The dam will create a lake about the size of Singapore. Before flooding the area, Ekran will clear 80,000 hectares of forest which should produce three to six million tons of timber. Ekran officials estimate that timber profits from log exports and a planned wood chip plant could exceed M\$2 billion. Moreover, according to Datuk Ting, due to the "pioneer status" of the project, "there will be tax exemptions for quite some time."⁷⁷ Datuk Ting has close ties to Chief Minister Taib and Prime Minister Datuk Seri Mahathir Mohamad. Taib's sons are minority shareholders in Ekran and in Pacific Chemicals Bhd, another Ting company.⁷⁸ These political ties were a critical factor behind the choice of Ekran to build the Bakun Dam. According to the Asian Wall Street Journal, the deal was "negotiated privately in just a few weeks by

⁷⁶Raphael Pura, "Timber Baron Emerges From the Woods," AWSJ, 15 February 1994, p.4.

⁷⁷Quoted in Raphael Pura, "Ekran Is Tapped To Construct Malaysian Dam," AWSJ, 31 January 1994, p.4. Pura provides details on the Bakun Dam, Ibid., p.1, p.4.

⁷⁸Raphael Pura and Stephen Duthie, "How Ekran Bhd. Outfoxed Rival For Power Deal," AWSJ, 2 February 1994, p.12.

Datuk Ting and powerful Sarawak Chief Minister Tan Sri Abdul Taib Mahmud, then approved by Dr. Mahathir and awarded without competitive bidding."⁷⁹ Prime Minister Mahathir confirmed this deal "a day after he attended a wedding dinner for Chairman Ting's son."⁸⁰

PUBLIC OPPOSITION AND PATRON-CLIENT POLITICS IN BORNEO MALAYSIA

The link between politics and timber profits is widely known among the people of Sabah and Sarawak, yet there is little public opposition to political control over this valuable resource.⁸¹ While discussing the allegations and counter-allegations of 'corrupt' timber management during the 1987 election in Sarawak, Marcus Colchester ponders:

For the foreign visitor, the most extraordinary aspect of this affair was that these revelations went undisputed and were accepted by the general public. Neither were

⁷⁹Raphael Pura, "Ekran Is Tapped To Construct Malaysian Dam," AWSJ, 31 January 1994, p.4. Two other major timber operators in Sarawak are Hiew Teck Seng and Wong Tuong Kwang. Wong's son, Wong Kie Yik, is a federal senator. Raphael Pura, "In Sarawak, a Clash Over Land and Power," AWSJ, 7 February 1990, p.1.

⁸⁰S. Jayasankaran, "Onward March," FEER, 24 November 1994, p.140.

⁸¹One notable exception is the Penans of Sarawak who actively oppose logging. But they constitute a small percentage of the population and are divided on the issue since many work for timber companies. I. Rajeswary, "Profits vs. Preservation," in Dwindling Forests: Diminishing Returns (New York: UNDP, 1991), p.17. It is possible that local and tribal people privately dislike state management of timber since 'acquiescence' does not necessarily mean 'acceptance'. See James C. Scott, Weapons of the Weak: Everyday Forms of Peasant Resistance (New Haven: Yale University Press, 1985). To confidently determine whether local and tribal people in Borneo Malaysia 'accept' state management and allocation of timber resources would necessitate direct and extensive field research.

there calls for a public enquiry into the issuing of logging licences, nor attempts to impeach the politicians on charges of corruption.⁸²

Although this lack of open opposition may partially be a result of the difficulty of collective action in multi-ethnic and religious states, and partially due to the political and economic dominance of a small elite, its roots in traditional power relations and patron-client exchange help mute public opposition.

While domestic criticism is muffled, there has been strong international condemnation of 'corrupt' Borneo Malaysian politicians and timber tycoons. For this reason, state leaders -- especially Sarawak's Chief Minister Taib -- are sensitive to any international or domestic probes of Malaysian forestry management. The Sarawak government closely supervises NGOs (including tapping phones), and monitors foreign visitors, especially journalists and researchers. For the last 20 years, Sarawak has blacklisted journalists, academics, and NGO leaders, using the power over immigration to bar unwanted visitors.⁸³ Despite these measures, criticism of Borneo Malaysian forestry management mounted in the late 1980s and early 1990s. In 1992, the federal and state governments launched a campaign to suppress domestic environmental critics -- in particular the Penan of Sarawak -- and flood the world media with positive images of Malaysia environmental

⁸²Colchester, Pirates, p.31. Revealingly, the environmental candidates all lost in the 1987 Sarawak election, even though they had won several seats in the federal election the previous year. Suhaini Aznam, "The Quiet Drums," FEER, 10 October 1991, p.19.

⁸³Interview, Foreign correspondent, Kuala Lumpur, 10 March 1994.

management. When announcing the campaign, the federal Primary Industries Minister declared: "If the reputation of Malaysia is not protected by giving the right information and counter arguing against eco-colonialistic attitude[s], such misinformation will in the end affect the country's economy."⁸⁴

The next section analyzes timber policies in Borneo Malaysia. Pervasive clientelist ties between top state patrons and timber operators weaken supervision of state implementors, distort formal policies, and undermine state capacity to enforce regulations. This does not mean that formal institutions and policies can be ignored. Despite dismal enforcement, public policies have important consequences, often providing incentives to mine the forests.⁸⁵ But they must be seen as existing alongside informal, unstable, instrumental arrangements that drive destructive logging, protect illegal loggers and smugglers, undercut tax and royalty collection, place concessions in the hands of a small, unaccountable elite, and distort policies to encourage processing, reforestation, plantations, and concession management.

⁸⁴Toh Lye Huat, "Plan to counter anti-tropical timber campaign," New Straits Times, 11 March 1992, p.10. This campaign has further clouded the line between propaganda and reality. It has also increased the difficulty of conducting primary research in Malaysia. For further details on the campaign, see "Govt to counter foreign 'green' smear campaigns," The Straits Times, 11 March 1992, p.15; and "Help sought to monitor group," New Straits Times, 11 March 1992, p.10.

⁸⁵For an excellent set of articles on the links between poorly designed public policies and tropical deforestation, see Gillis and Repetto, eds., Public Policies. These findings are summarized in "Conclusions: findings and policy implications," in *Ibid.*, pp.385-410.

ROLE OF FORMAL INSTITUTIONS, REGULATIONS, AND POLICIES

A. Background

Sabah and Sarawak both have exclusive jurisdiction over forestry management. The federal government is restricted to financing research and development, providing technical assistance and training, issuing export licences,⁸⁶ and approving large foreign investments.⁸⁷ As well, under the federal Environment Quality Act, state logging companies are required to conduct environmental impact assessments. State governments are responsible for compliance, however, and so far no logging company has ever bothered to submit a report.⁸⁸

Under the 1957 Land Code and the 1954 Forest Ordinance, all forested areas in Sarawak are owned by the state.⁸⁹ Responsibility for forestry policy and enforcement, and issuing and cancelling timber concessions, rests primarily with the Sarawak Forest Department, while timber tax and royalty policies are formulated by the Chief Minister's Office.⁹⁰ The Sarawak Timber Industry

⁸⁶Rajeswary, "Profits vs. Preservation," p.15.

⁸⁷The federal government also has some indirect influence through its control of areas like the national budget and manpower. Interviews, Universiti Pertanian Malaysia (UPM), Faculty of Forestry, Malaysia, 8 March 1994.

⁸⁸Michael Vatikiotis, "Clearcut Mandate," FEER, 28 October 1993, p.54.

⁸⁹Sarawak Forest Department, Forestry in Sarawak, p.7, p.13.

⁹⁰Gillis, "Malaysia: public policies," pp.149-153. For background on forest legislation and policy in Sarawak, see Malaysian Forester, "Forest Resource Base, Policy and Legislation of Sarawak," The Malaysian Forester 42, no.4 (1979), pp.311-327.

Development Corporation (STIDC) negotiates with foreign investors. Harwood, a subsidiary of STIDC, monitors log export quotas and timber concessions. Since the beginning of 1993, STIDC has taken charge of approving timber export licences from the Ministry of International Trade and Industry.⁹¹

In Sabah, responsibility for timber management is divided between the Sabah Foundation (through Innoprise), the Forestry Department, and the Chief Minister's Office. The exact duties of each institution are unclear, although generally both the Sabah Foundation and the Chief Minister's Office grant and revoke concessions, the Chief Minister's Office determines royalty policy, and the Forestry Department controls and enforces harvest regulations outlined in specific licences, the 1968 Forest Enactment (and 1984 and 1992 Amendments), and the 1969 Forest Rules.⁹² The Forestry Department is only involved in minor reforestation projects, primarily for research.⁹³

⁹¹"Timber exporters must register with STIDC," The Borneo Post, 1 January 1993.

⁹²Gillis, "Malaysia: public policies," pp.127-128.

⁹³Interview, Sabah Forestry Department (Jabatan Perhutanan Sabah), Kota Kinabalu Branch, 16 February 1994. For background on the basic goals and policies of the Sabah Forestry Department, see Sabah Forestry Department, Goals (Sandakan: Sabah State Government, undated); and Malaysian Forester, "The Forest Resource Base, Policy and Legislation of Sabah," The Malaysian Forester 42, no. 4 (1979), pp.286-310.

B. Logging Guidelines in Borneo Malaysia

In Sabah, 2 million hectares have been carved into timber concessions.⁹⁴ There are three main kinds of licences for logging: concessions, special licences and annual licences. The Sabah Foundation grants concessions, usually from 21 to 25 years and between 20,000 and 80,000 hectares. In 1989, there were 11 concession holders. Special licences are for 5 years and can be renewed for another 1 to 5 years. There were 93 special licences in 1989.⁹⁵ Annual licences are renewable 1 year agreements. There were 500 in 1986.⁹⁶ In theory, Sabah timber operators -- including the Sabah Foundation -- use the Malayan Uniform System.⁹⁷ All commercial trees above a 45 centimetre diameter are cut in one logging operation. The stand is then left to regenerate naturally -- usually 60 to 80 years -- before the next harvest. To facilitate natural replacement, climbers and seedlings which

⁹⁴Rush, The Last Tree, p.42.

⁹⁵Domingo N.P. Chai and Yahya Awang, "Current Forest Resource Scenario in Sabah," in Ti Teow Chuan, ed., Opportunities and Incentives for Wood Processing in Sabah. Proceedings of a seminar organised by Timber Association of Sabah held at Kota Kinabalu, 22-23 August, 1989. (Kota Kinabalu: Timber Association of Sabah, 1989), p.25.

⁹⁶Sabah Forestry Department, Forestry in Sabah, pp.63-64.

⁹⁷According to a spokesman, since 1993 Innoprise has improved timber management. While still in the early stages, this involves two key changes: leaving some areas undisturbed and planting more indigenous trees. Japan has shown no interest in supporting these efforts. Interview, Senior manager, Innoprise Corporation, 9 February 1994.

compete with valuable species are often poisoned.⁹⁸ In recent years, Sabah's management problems have been compounded since lowland forests are now largely depleted and loggers have moved to "highland areas where seedlings are less profuse."⁹⁹ In Sarawak, companies use a selective logging system similar to the one in Indonesia but with a shorter cutting cycle of 25 years.¹⁰⁰

While there are certainly problems with formal logging guidelines in both Sabah and Sarawak, in practice timber companies quickly remove the most valuable logs with little regard for official regulations. State supervision and enforcement of logging rules is poor. Many forestry enforcement officers ignore violations in exchange for money or gifts. Problems are aggravated by a lack of staff. For example, in the Keningau region of Sabah, one forestry official is responsible for an average area greater than 10,000 hectares.¹⁰¹ In Sarawak, despite a 200 percent rise in harvesting since 1981, there has been no increase in forestry staff.¹⁰²

⁹⁸For details, see Yaacob, Salahudin, et., al. (Malaysian FSC Consultative Study Working Group), Forest Stewardship Council (FSC) Malaysian Consultative Study (Selangor Malaysia: WWF Malaysia, August 1993), pp.20-21.

⁹⁹Kan Yaw Chong, "Logging and forest conservation," Sabah Times, 22 April 1990.

¹⁰⁰For a description of Sarawak's timber harvesting guidelines, see Sarawak Forest Department, Forestry in Sarawak, pp.18-27.

¹⁰¹"Military to curb illegal logging in Sabah," Borneo Post, 12 February 1993.

¹⁰²Interview, Senior researcher, Forest Department, Kuching, 21 February 1994.

Poorly controlled companies ignore silvicultural treatment and logging rules, reenter concessions too quickly, and do irreparable damage. In Sabah, as much as 75 percent of trees remaining after logging are damaged.¹⁰³ As in Indonesia, logged areas are vulnerable to slash-and-burn farmers and forest fires. In 1983, 20 percent of Sabah's forested land burned -- 85 percent of this area had been logged.¹⁰⁴ Borneo Malaysian companies also illegally extract logs from protected forest areas and State Land forest. In Sabah, the government reported 93 cases of illegal logging, royalty evasions and violations of timber regulations in the first ten months of 1993.¹⁰⁵ The government likely reports or discovers a small fraction of illegal activities. According to a Sabah logger, before the export ban, illegal logs accounted for about 30 percent of total log exports.¹⁰⁶ As well, Borneo Malaysia is a common exit point for illegal Indonesian and Philippine logs. While there is no systematic documentation, there is sporadic evidence that Japanese companies purchase illegal logs. For example, in 1992 the Sabah Forestry Department discovered more than 600 illegal logs in

¹⁰³Kan Yaw Chong, "Logging and forest conservation," Sabah Times, 22 April 1990. Even the Sabah Forestry Department estimated that over 40 percent of a concession was destroyed after logging. Nectoux and Kuroda, Timber, p.20.

¹⁰⁴Mark N, Collin, The Conservation Atlas of Tropical Forests [Asia and the Pacific] (New York: Simon, 1991), p.201; and Sabah Forestry Department, Forestry in Sabah, p.46.

¹⁰⁵"Heavier penalties for forest criminals: Pairin," Borneo Post, 25 October 1993.

¹⁰⁶Cited in "Loggers' Lament," Asiaweek, 28 April 1993, p.50.

Japan.¹⁰⁷

C. Tax and Royalty Policies

Royalty policies in Borneo Malaysia have been more effective than environmental protection policies. State governments keep all timber royalties, export taxes, and licence fees, a sharp contrast to the five percent of oil revenues allotted to Malaysian states. Over the last two decades, timber charges -- especially on log exports -- have generated substantial revenues in Sabah and Sarawak.¹⁰⁸ From 1980 to 1989, the forestry sector accounted for about 60 percent of Sabah's revenue; 95 percent came from royalties and taxes on log exports.¹⁰⁹ In the early 1990s, the forestry sector accounted for more than half of Sabah's revenue and around one-third of Sarawak's.

Sabah -- through aggressive royalties and export taxes -- has

¹⁰⁷Joniston Bangkuai, "Illegal export of timber exposed," New Straits Times, 23 April 1992, p.1. It is difficult to document the path of illegal logs. Small signs do emerge. During one of my interviews in Sabah, a Japanese corporate executive telephoned and inquired into the possibility of a sawmill doing minor alterations to some 'foreign' logs before exporting this timber to Japan. The Sabah official refused to disclose the source of the logs, although they hinted it was Indonesia. Confidential Interview, Kota Kinabalu, February, 1994.

¹⁰⁸In June 1993, royalties on key tree species in Sarawak increased by 50 percent. James Wong, "New rates for timber royalties," The Borneo Post, 8 June 1993.

¹⁰⁹Murtedza Mohamed and Ti Teow Chuan, "Effects of Deforestation: with Special Reference to East Malaysia," Borneo Review 2, no. 2 (December 1991), p.127.

captured a significant portion of timber rents.¹¹⁰ Nevertheless, informal agreements between politicians, bureaucrats, and timber operators have syphoned substantial amounts of potential state revenues. To lower forest charges, logging companies -- often in collusion with customs officials and enforcement officers -- forge species types, under-declare the value and volume of exports, and falsify the degree of processing.¹¹¹ In many cases, timber executives simply report to customs a price or quantity lower than the one agreed on with the importer. In exchange for accepting these forged declarations, customs officials receive 'kickbacks.' Importers -- generally Japanese trading companies -- ignore these irregularities as long as "their supplies reach them at the agreed prices and quantities."¹¹² Besides these 'sophisticated' schemes, companies sometimes dodge customs, and covertly deliver logs to

¹¹⁰See Gillis, "Malaysia: public policies," pp.139-143. While Sabah's timber charges have generated substantial state revenue, *ad valorem* royalties on logs and export taxes on sawn timber have encouraged loggers to mine concessions and disregard damage to residual stands. Ibid., p.130. In Sarawak, timber royalties are volume-based (which are reduced for lower grade species), and export taxes are value-based. While Sarawak has captured remarkably little timber rent, lower forest fees -- especially ones differentiated by species -- have provided fewer incentives to practice high-grade mining. For this reason, loggers apparently damage less residual stocks in Sarawak than in Sabah. Ibid., p.131, pp.149-151.

¹¹¹Sabah timber exporters -- including the Sabah Foundation -- have reportedly under-declared the value of log exports by as much as 40 percent. Openg Onn, "Sabah losing millions in timber scam," New Straits Times, 15 May 1993, p.6; "Putting Sabah's logging back on the track," Borneo Post, 1 February 1993; and "Forestry Dept seizes undervalued sawn timber," Borneo Post, 19 August 1993.

¹¹²Openg Onn, "Sabah losing millions in timber scam," New Straits Times, 15 May 1993, p.6.

offshore ships.¹¹³ As a result of these practices, one Sabah 'insider' claims that "two out of every five ships leaving here have not paid duty."¹¹⁴ According to some sources, 30 to 40 percent of Sabah log exports were improperly documented in the early 1990s, contributing to substantial losses of royalties for the state government. In 1991, one Sabah logging group alone was alleged to be slipping out the equivalent of 10 to 15 vessels a month during busy periods, with an annual market value estimated by the Far Eastern Economic Review at US\$100 million. The same article estimated that in Sarawak these practices may be even more widespread.¹¹⁵

Under Malaysian law, federal timber revenue -- collected by the Inland Revenue Department -- is limited to corporate and personal income tax on timber profits. Borneo Malaysian companies routinely practice transfer pricing to evade these taxes. Ethnic Chinese corporations in both Sarawak and Sabah sell logs to 'home' companies, usually in Hong Kong. These logs are priced at the cost of extraction. As a result, the local company's books show no profits, and the company pays no taxes. The Hong Kong company then sells the logs at market prices, in most cases to a Japanese trading company (the logs generally 'leave' Borneo Malaysia only on paper). Profits appear in the Hong Kong books, where taxes are

¹¹³Doug Tsuruoka, "Cutting down to size," FEER, 4 July 1991, p.45.

¹¹⁴Quoted in Hurst, Rainforest, p.109.

¹¹⁵Doug Tsuruoka, "Cutting down to size," FEER, 4 July 1991, p.46.

low. These profits are placed in a Hong Kong bank; the Borneo Malaysian company then borrows an equivalent amount with interest payments equal to the interest earned in Hong Kong. Since the money 'returns' as a loan, it is tax exempt.¹¹⁶

D. Political Concessionaires, Chinese Clients, and Sub-contracting

In Sarawak, all uncultivated land -- except designated Forest Reserves, Communal Forests and National Parks -- can be licensed by the state government as logging concessions.¹¹⁷ Control over concession licences is a critical source of power for patron-client networks. According to Philip Hurst, "it is an open secret that timber concessions are handed out in East Malaysia as a means of strengthening political allegiances or as rewards for favours."¹¹⁸ One study declared that in Sarawak, "political elites' control over awarding [logging] licences gives them the means to maintain and tighten their grip on state power -- by alternately rewarding their cronies and followers, and buying off their political rivals and opponents."¹¹⁹ Powerful political concession holders rely on ethnic Chinese contractors with the equipment and expertise to

¹¹⁶Interview, Foreign correspondent, Kuala Lumpur, 9 March 1994.

¹¹⁷Sarawak Study Group, "Logging in Sarawak: The Belaga Experience," in Logging Against the Natives of Sarawak (Selangor, Malaysia: INSAN, 1989), p.5.

¹¹⁸Hurst, Rainforest, p.103.

¹¹⁹Sarawak Study Group, "Logging in Sarawak," p.3.

manage the timber site.¹²⁰ These ties are at the core of many patron-client clusters. Political patrons gain financial, political and electoral support while Chinese business-clients reap huge profits.

The central role of concessions in binding together patron-client clusters has contributed to over-exploitation. In Sarawak, 60 percent of all land has been granted as timber concessions -- "on a scale which has no relation to the sustainable capacity of [timber] resources and with little regard for management prescriptions on the number and size of trees cut."¹²¹ As well, patron-client links contribute to contracting arrangements in Borneo Malaysia that reduce accountability and transparency, especially when concessions are granted to nominees.¹²² In Sarawak, Chinese contractors often make sub-contracting arrangements. Sub-contractors, many of whom are directly connected to local leaders, provide employees and some equipment. To appease local opposition to destructive logging practices and the poor treatment of many native loggers, "there is evidence of some native leaders and even communities being paid off for making deals with

¹²⁰Concessionaires receive either a fixed sum or a percentage of the profits from the contractor -- generally between 5-10 percent of the value. Hurst notes that "this may seem a low return but revenues build up and involve the concessionaires in almost no financial risk." Besides, "the concession holder frequently does nothing." Hurst, Rainforest, p.105.

¹²¹Anthony Rowley, "Logged Out," FEER, 13 December 1990, p.74.

¹²²The use of nominees makes it difficult to determine who controls timber companies. For a discussion of this problem in Sabah, see Doug Tsuruoka, "Cutting down to size," FEER, 4 July 1991, p.44-45.

timber concessionaires and especially with logging operators."¹²³ These complex contracting arrangements obscure lines of responsibility and make the enforcement of timber management rules much harder.¹²⁴ In 1993, Kuala Lumpur pushed state governments to stop awarding timber concessions to companies or individuals with no logging expertise.¹²⁵ According to foresters, this would "help eliminate unnecessary sub-contracting, reduce corruption and payment of under-counter money, control illegal logging...ensure higher efficiency...[and] in the long term, generate higher revenues for the state governments."¹²⁶

Unstable patron-client ties contribute to a sense of uncertainty, providing strong incentives to mine timber concessions quickly. It is fairly common for powerful leaders in Borneo Malaysia to revoke concessions and licences as political winds shift. For example, when Datuk Harris Salleh became Chief Minister

¹²³K.S. Jomo, "Logging, Politics, Business and the Indigenous People of Sarawak," Paper presented at the 5th Annual Conference of Northeast Regional Consortium for Southeast Asian Studies, University of British Columbia, October 16-18, 1992, p.6. For a description of the harsh conditions for native loggers, see Jeyakumar Devaraj, "Logging Accidents in Sarawak," in Logging Against the Natives of Sarawak (Selangor, Malaysia: INSAN, 1989).

¹²⁴The Director General of the Forest Research Institute of Malaysia argues: "What happens is that at each stage the individual tries to maximise profit[s]. The responsibility and accountability is fragmented and this does not lead to good forestry practices." Azam Aris, "State govts urged to change timber concession policies," Business Times, 10 February 1993.

¹²⁵"Don't give timber concessions to middlemen, state told again," Borneo Post, 20 September 1993.

¹²⁶Azam Aris, "'Overhaul timber concession system'," Business Times, 1 February 1993.

of Sabah in 1976, he "cancelled concessions granted by his predecessor, covering 12 percent of the total forest area under licence."¹²⁷ After Pairin's PBS party ousted the ruling Berjaya party under Harris Salleh in the 1985 Sabah election, timber patronage was again redistributed. The constant threat for concessionaires and contractors of being labelled 'corrupt' further increases uncertainty. The overlap of 'modern' legal institutions and 'traditional' relations of power has created a situation where timber patronage is an 'open secret', yet the threat of being labelled 'corrupt' constantly exists. Charges of corruption clearly do not undermine authority in Borneo Malaysia in the same way as in many 'Western' democracies. For example, even after Chief Minister Taib was linked to widespread corruption and nepotism during the 1987 election in Sarawak, he still won easily. Nevertheless, corruption charges can undermine the stability of patron-client clusters and networks, especially when used as a tactic by the federal government to undermine state leaders or when used as a strategy by state politicians to 'embarrass' their opponents.¹²⁸

Unpredictable political settings and unstable patron-client networks contribute to a serious problem of 'capital flight'.

¹²⁷Gillis, "Malaysia: public policies," p.127.

¹²⁸To undermine the PBS, the federal government charged Chief Minister Pairin, and his brother Jeffrey Kitingan with corruption. For details, see Michael Vatikiotis, "Glacial Justice," FEER, 27 May 1993, p.27. In early 1994, Pairin was found guilty. His fine, however, was low enough that he still qualified for office. Although this verdict eroded some of his legitimacy and authority, he still managed to win the ensuing election.

Chinese timber clients -- concerned about future economic trends, the fall of their patron, and racial backlashes -- stash a significant portion of timber proceeds overseas, especially in Hong Kong. In addition, while there is some investment in wood processing, there is almost no Chinese investment in long-term timber management. Loggers perceive the industry as too volatile, perhaps even doomed.¹²⁹

E. Log Export Restrictions and Processing Policies

In 1979, to reduce log exports and encourage domestic processing of sawn timber and plywood, Sabah imposed export quotas and increased taxes. But compared to Indonesia these were lenient and not well enforced.¹³⁰ This changed suddenly at the start of 1993 when Kuala Lumpur used its power over export licences to prevent logs from leaving Sabah.¹³¹ Officially, the federal government claimed that the ban was necessary to enhance

¹²⁹Interview, Foreign correspondent, Kuala Lumpur, 10 March 1994.

¹³⁰Repetto, The Forest For The Trees?, p.54; and Kenji Takeuchi, "Market Prospects for Tropical Hardwoods from Southeast Asia," in James S. Bethel, World Trade in Forest Products (Seattle: University of Washington Press, 1983), p.437.

¹³¹The Malaysian Timber Industry Board issues export licences to Sabah. However in Sarawak, the state government issues these licences. Interview, Malaysian Timber Industry Board, Ministry of Primary Industries, Kuala Lumpur, 9 March 1994. Although the Malaysian constitution clearly gives the federal government control over exports and imports, Sabah argued that the log export ban was unconstitutional -- that precedents had been set after Sabah joined the federation for state control of timber exports. Interview, Senior official, Ministry of Primary Industries, Kuala Lumpur, 8 March 1994.

environmental protection and promote domestic wood processing. It appears, however, to have been primarily motivated by Prime Minister Mahathir's desire to undermine Chief Minister Pairin's key source of patronage, topple his power base, and establish a more cooperative state government.¹³² Before the ban, Japan had imported 70 percent of Sabah log exports.¹³³ The move surprised Japanese plywood processors, spinning many into a financial crisis.¹³⁴ Kuala Lumpur lifted the ban in April 1993, after escalating log prices began to hamper wood processing in Peninsular Malaysia, and after complaints and pressure from Japan's wood processing industry and the Japanese government.¹³⁵ The Sabah government, however, then struck back at Kuala Lumpur and imposed their own ban on log exports.¹³⁶ The Japanese government and

¹³²Prime Minister Mahathir was also angry that Sabah's log export charges to places like Japan, Taiwan and Korea were the same as to Peninsular Malaysia. At the time, mainland processors -- facing a serious shortage of logs -- wanted Sabah to decrease export charges to the Peninsular. Confidential Interview, Sabah Industry Representative, Kota Kinabalu, February, 1994; and see Michael Vatikiotis, "Local Hero: Drive to topple Sabah leader stalls," FEER, 27 May 1993, pp.26-27.

¹³³JATAN, "Asia-Pacific Forests," November 1993, Presented at the World Rainforest Movement Meeting, New Delhi, India, April 1994, p.2.

¹³⁴P.K. Katharason, "Logs meant for Japan stuck in Kota Kinabalu," The Star, 9 May 1993, p.7; and "Tokyo protests to KL over Sabah's ban on log exports," Straits Times, 8 May 1993, p.22.

¹³⁵Interview, Timber Association of Sabah, Kota Kinabalu, 8 February 1994; and "Log ban to remain - CM," Sabah Times, 21 May 1993, p.1

¹³⁶Michael Vatikiotis, "Tables turned: Sabah timber-export ban riles Kuala Lumpur," FEER, 3 June 1993, pp.66-67; and Asian Timber, June 1993, p.8. Although the federal government has the constitutional power to control exports, the Sabah Forestry

corporations tried to convince Sabah to lift this ban but the Pairin government stood firm.¹³⁷

Sabah state revenues have remained stable since the ban on log exports. To offset lost export charges on logs, the government increased local processing fees.¹³⁸ The government and companies have also benefitted from an increase in the price of sawn timber which doubled in the first four months of the ban.¹³⁹ The ban on log exports has provided a crucial boost to Sabah wood processors. Before the ban, only 105 out of 164 sawmills were operating; many were functioning at half of their production capacity. Plywood and veneer mills were also operating well below capacity.¹⁴⁰ After the ban, Sabah plywood, veneer, and saw mills all increased output, absorbing logs once destined for export.¹⁴¹ As a result, there has been little change in total log production.

Despite stable government revenues and an increase in

Department simply refused to assess royalties on log exports, in effect creating a log export ban. Fadzil Ghazali, "Sabah timber firms get go-ahead on exports," Business Times, 19 May 1993.

¹³⁷Joehann Angkie, "Japanese sceptical on Sabah," Daily Express, 17 November 1993, pp.1-2.

¹³⁸Official, Timber Association of Sabah, Kota Kinabalu, 8 February 1994.

¹³⁹Official, Timber Association of Sabah, Kota Kinabalu, 8 February 1994.

¹⁴⁰John Lim, "Temporary log export ban in Sabah: no pain, no gain," Asian Timber, December 1992, p.3.

¹⁴¹Interviews, Timber Association of Sabah, Kota Kinabalu, 8 February 1994; Innoprise Corporation, Kota Kinabalu, 9 February 1994; Institute for Development Studies, Kota Kinabalu, 12 February 1994; and Ministry of Tourism and Environmental Development, Kota Kinabalu, 15 February 1994.

processing output, Sabah's ban on log exports has had few economic or environmental benefits. Log production is still far above sustainable levels, and there has been little improvement in the management of concessions. The total capacity of Sabah's plywood and veneer mills is 11.4 million cubic metres. With production set at 8 million cubic metres there is a chronic shortage of logs,¹⁴² creating strong incentives to process illegal logs. As well, in the absence of international competitors, the Sabah Sawmillers Industries Association (SSIA) appears to be suppressing log prices.¹⁴³ In addition, as in Indonesia, the ban will likely protect and foster inefficient processors, putting even more pressure on commercial timber stocks.¹⁴⁴ Finally, much of Sabah's sawn timber is little more than logs with their corners shaved, providing almost no value-added economic benefits. This 'sawn' timber is then exported overseas and processed again.¹⁴⁵ In many ways, Sarawak has been the main beneficiary of Sabah's log export ban. In 1993 and the first quarter of 1994, Sarawak's logging

¹⁴²"Log ban to remain - CM," Sabah Times, 21 May 1993, p.1

¹⁴³The SSIA denies these charges. Interview, Sabah Sawmillers Industries Association, Kota Kinabalu, 16 February 1994. To stabilize log prices, in mid-1994 the government was contemplating setting a minimum and maximum price on logs.

¹⁴⁴Senior Researcher, Institute for Development Studies, Kota Kinabalu, 12 February 1994.

¹⁴⁵Interview, Ministry of Tourism and Environmental Development, Kota Kinabalu, 15 February 1994.

industry thrived as log prices increased.¹⁴⁶

Unlike in Indonesia since 1985 and Sabah since 1993, Sarawak has tried to balance log exports with incentives and restrictions to promote wood processing. Beginning in 1988, the government set aside 10 percent of logs for processing; in 1992, this was increased to 17 percent. Despite higher prices for log exports, since the beginning of 1993, Sarawak has made even more aggressive moves to promote processing.¹⁴⁷ To guarantee logs and stable prices for local processors, in early 1994 the state-controlled Harwood Company was made the sole distributor of local logs.¹⁴⁸ As well, in 1993 the government gave generous royalty rebates on logs manufactured in Sarawak,¹⁴⁹ and reserved around 36 percent of logs for local processors.¹⁵⁰ By the year 2000, the government intends to set aside 50 percent of logs for local processors.¹⁵¹ There

¹⁴⁶Interview, Sabah timber executive, Kota Kinabalu, 9 February 1994. Although Sarawak log exporters made substantial profits, the rapid rise in prices hurt local processors as log prices climbed much faster than processed wood prices.

¹⁴⁷"S'wak aggressive in going downstream," The Borneo Post, 16 September 1993.

¹⁴⁸"Harwood takes charge from February 1," Sarawak Tribune, 26 January 1994, p.1.

¹⁴⁹Sarawak Forest Department, Forestry in Sarawak, p.33; "Enough Supply of Logs, Says STA Chairman, Peoples Mirror, 9 February 1993; and James Wong, "Cheaper logs for local processing, The Borneo Post, 9 February 1993.

¹⁵⁰Interview, Sarawak Timber Industry Development Corporation, Kuching, 17 February 1994. In 1993, the government planned to set aside 6.0 million cubic metres for local plywood and saw mills. "6 Mil cu m Of Logs reserved For Local Industry," Peoples Mirror, 17 January 1993.

¹⁵¹Sarawak Forest Department, Forestry in Sarawak, p.33.

are, however, no plans to ban log exports.¹⁵² According to a government spokesman, foreign demand keeps log prices high, and log exports generate critical foreign exchange. Furthermore, around 60 percent workers who manufacture wood are already Indonesian; creating more processing jobs would not boost Sarawak's economy.¹⁵³ So far, unlike in Sabah, Japan has not overtly pressured the Sarawak government to reduce log export restrictions. However, local loggers -- perhaps backed by Japanese companies -- have lobbied to reduce export restrictions.¹⁵⁴

With the help of government subsidies and protection, Sarawak now has 15 plywood mills, 10 veneer mills, and 213 sawmills with a total capacity of 7 million cubic metres.¹⁵⁵ Processed timber production is steadily rising. For example, total plywood production in 1992 was one million cubic metres and was expected to rise to 1.5 million cubic metres in 1993.¹⁵⁶ Like in Sabah and Indonesia, however, many processing plants operate below capacity. For example, in early 1993, plywood mills were functioning at 60 to

¹⁵²Tan Chin Siang, "Taib: Sarawak will adopt flexible timber trade policy," New Straits Times, 19 October 1993, p.10.

¹⁵³Interview, Senior official, Forest Department, Kuching, 17 February 1994.

¹⁵⁴Interview, Sarawak Timber Industry Development Corporation, Kuching, 17 February 1994.

¹⁵⁵Asian Timber, February 1993, p.5.

¹⁵⁶Jack Wong, "Plywood prices revised upwards," Borneo Post, 10 February 1993.

70 percent of capacity.¹⁵⁷

F. Conservation, Reforestation, and Timber Plantations

Informal links and personal agreements between forestry officials, concession holders, and logging companies sap the ability of the forest departments in Sabah and Sarawak to enforce conservation and reforestation policies. In Sarawak, "a great many forestry officials themselves are believed to have shares in the licensed companies, generally through relatives and nominees, and they thus have a vested interest in maximizing short-term returns to the company rather than in assuring the careful management of State forest estate."¹⁵⁸ Logging companies in Borneo Malaysia extract logs from National Parks, State Parks, and Wildlife Sanctuaries, which according to the Malayan Nature Society, cover about "2 percent of Sarawak's land area and 3.6 percent of Sabah."¹⁵⁹ In Sabah, forestry officials are alleged to ignore illegal logging in exchange for "favours."¹⁶⁰ There are of course forestry officials who try to enforce regulations, but they have had little success. The cumulative effect of these informal practices has contributed to minimal regeneration of natural

¹⁵⁷"Sarawak plywood mills raise wholesale prices but expect log cost to ease this year," Asian Timber, March 1993, p.6.

¹⁵⁸Colchester, Pirates, p.35.

¹⁵⁹Summarized in Martha Belcher and Angela Gennino, eds., Southeast Asia Rainforests: A Resource Guide & Directory (San Francisco: Rainforest Action Network, 1993), p.27.

¹⁶⁰Doug Tsuruoka, "Cutting down to size," FEER, 4 July 1991, p.46.

forests, illegal logging in conservation areas, and ineffective reforestation projects.

In Sabah, there is little corporate investment in natural forest regeneration or timber plantations. Since timber land and concessions rights are linked to unstable patron-client networks, both domestic and foreign investors are wary of long-term commitments. As a timber exporter succinctly explained, companies "want to be sure that after investing...huge sums of money, the timber will be theirs. There is still much uncertainty over this aspect."¹⁶¹ For this reason, most reforestation is conducted by the state government -- especially the Sabah Foundation (through Sabah Softwoods Sdn Bhd) and the Sabah Forestry Development Authority.¹⁶² There are now 300,000 hectares of state timber plantations in Sabah, mostly fast-growing acacia mangium.¹⁶³

Unlike Indonesia and Sabah, Sarawak has no plans to reforest concession sites or develop commercial timber plantations. Only about 10,000 hectares of degraded land have been replanted in the Permanent Forest Estate, mainly for conservation. According to the

¹⁶¹Quoted in "The private sector and reafforestation," The Star, 21 September 1991, pp.8-9.

¹⁶²Interview, Timber Association of Sabah (TAS), Kota Kinabalu, 8 February 1994. TAS is a private organization. It works to protect its members from detrimental government policies. For example, TAS advises and negotiates with the state government on licensing and royalty fees. It is the main organization for log producers (in the past exporters).

¹⁶³Interview, Institute for Development Studies, Kota Kinabalu, 12 February 1994. For background on Sabah's forest plantations, see "Four fast growing species in Sabah forest plantations," The Star, 17 September 1991, pp.8-9.

government, slash-and-burn farmers destroyed most of these areas.¹⁶⁴ In the Forest Department's view, plantations or reforestation are inherently unnecessary since areas are logged selectively. Instead, it is more important to improve silvicultural techniques.¹⁶⁵

G. Recent Attempts To Improve Timber Management

Over the last couple of years, the federal and state governments have introduced policies to tackle illegal logging and smuggling, destructive timber extraction, and tax and royalty evasion. In 1993 the federal government amended its National Forestry Act to improve enforcement of timber management rules and curb illegal logging. The revised law increases fines for logging violations, stipulates mandatory jail sentences of up to 20 years for illegal loggers, and permits the armed forces to be deployed in the forests. However, although this law provides important signals to Borneo Malaysia, as one opposition member of Sarawak's legislature noted: "No federal forestry ordinance is strictly enforceable in Sarawak."¹⁶⁶

¹⁶⁴See Forestry Department Sarawak, Forestry in Sarawak, passim.

¹⁶⁵Interview, Senior researcher, Forest Department, Kuching, 21 February 1994; Interview, Senior official, Forest Department, Kuching, 17 February 1994; "Reforestation does not cover logged areas," The Borneo Post, 20 November 1993; and "Reforestation Only In Deforested Permanent Estates," Peoples Mirror, 20 November 1993.

¹⁶⁶Quoted in Michael Vatikiotis, "Clearcut Mandate," FEER, 28 October 1993, p.55. For background on the federal initiatives to combat illegal logging, see Abu Yamin Salam, "Army can nab illegal loggers," New Straits Times, 25 April 1993, p.2; "Copters to combat illegal logging," The Star, 25 April 1993, p.3; and "New law to

In the early 1990s, Sabah and Sarawak both imposed stiffer penalties to deter illegal loggers. Under Sabah's 1992 amendment to the Forest Enactment, illegal loggers face jail terms of up to 7 years and fines of M\$100,000.¹⁶⁷ In late 1993, the Sarawak state legislature passed the Forests (Amendment) Bill, stipulating a mandatory 1 to 5 year prison sentence for illegal loggers.¹⁶⁸ Both states have also tightened rules and bolstered enforcement units to combat illegal logging. In 1993, Sabah Forestry Department director Datuk Miller Munang announced that air force aerial surveys would be used to monitor illegal logging.¹⁶⁹

Sarawak is particularly concerned with the smuggling of logs reserved for local processing, especially as log prices increased after the log export ban in Sabah. To combat this problem, in 1993 the Sarawak government called on members of the Japanese Lumber Importers' Association to reject illegal logs.¹⁷⁰ At the same time, Sarawak's Forest Department recruited 300 more enforcement officers. Many are former soldiers. Their task is to "undertake

allow troops to nab illegal loggers," Straits Times, 25 April 1993, p.14.

¹⁶⁷"Sabah forestry law adequate, says AG," Business Times, 5 February 1993; and "Forestry Dept gets tough on illegal loggers," Sabah Times, 10 March 1993.

¹⁶⁸Tan Chin Siang, "Curbing illegal log exports," New Straits Times, 17 November 1993, p.1; and "New Mandatory Jail Term For Illegal Exporters of Logs," Peoples Mirror, 16 November 1993.

¹⁶⁹"Military to curb illegal logging in Sabah," Borneo Post, 12 February 1993.

¹⁷⁰"Stop accusing S'wak's forest management immediately," The Borneo Post, 16 September 1993; and "Log Smugglers Warned of Stern Action," Peoples Mirror, 16 September 1993.

round-the-clock checking of all log export points, regular patrols in the jungle, mount raids and ambushes where necessary and make regular checks on logging camps, rafts and barges in transit and log ponds."¹⁷¹ The State Enforcement Unit of the Sarawak Forest Department also established floating check points at all export locations. Ships or barges transporting logs are now inspected just before leaving. In addition, the Enforcement Unit plans on surprise checks of ships loading logs offshore.¹⁷² As an incentive to boost enforcement, Sarawak forestry officers now receive 50 percent of the total value of confiscated illegal logs.¹⁷³ To further hinder illegal loggers, in early 1994, Sarawak banned transporting logs on some rivers at night.¹⁷⁴

While monetary incentives, more enforcement officers, stiffer penalties, and tighter regulations appear to be important steps to improve timber management, in the setting of pervasive state links to timber operators, these moves are likely to have little impact on large companies. When announcing plans to combat illegal logging, the Sarawak forestry director Datuk Leo Chai argued that most illegal loggers were local people, not major companies. As he

¹⁷¹"Training for Sarawak forestry officers to curb illegal logging," New Straits Times, 23 April 1993, p.7.

¹⁷²Bob Kedeni, "Move to curb log smuggling," Sarawak Tribune, 21 July 1993; and Magdelene Rogers, "Checking stations to curb log smuggling," The Borneo Post, 21 July 1993.

¹⁷³"Sarawak sets up an anti-smuggling team," New Straits Times, 6 February 1993.

¹⁷⁴"Ban on moving logs at night to be enforced soon," The Borneo Post, 1 February 1994, p.2.

explained, "there are few organised illegal logging groups in the state because they cannot bring their logging machinery into the forest without being detected."¹⁷⁵ The failure of past campaigns to tackle illegal logging and tax evasion demonstrates the impunity of commercial timber companies in Borneo Malaysia. In 1991, a former manager of a major Sabah timber group publicly alleged that his company had extracted logs from restricted areas, forged species types, and distorted log measurements, costing the state millions of Malaysian dollars. He claimed that Sabah Forestry officials were part of these illegal activities. In response, Chief Minister Pairin announced a low-key campaign to halt illegal logging and royalty evasion. These efforts, however, had little impact on major timber firms. Instead, "small operators served as the scapegoats." These "small operators were mostly businessmen believed to be unable to pay customary gratuities to forestry officials."¹⁷⁶

To increase state capacity to monitor exports and improve royalty collection rates, Sabah officials are now considering a proposal to hire a British firm -- Inchcape -- to check timber

¹⁷⁵Quoted in Seman Endawie, "Cash-for-logs scheme soon," Sarawak Tribune, 2 February 1993. The Sarawak Forest Department also claims that efforts to capture illegal loggers are frustrated by local residents who work for loggers and refuse to provide information on illegal activities. "Locals collude with illegal loggers," The Borneo Post, 10 June 1994; and "Soon Kai Warns Accomplices," Peoples Mirror, 14 June 1993. The village singled out by the Forest Department in the above articles denied these charges. "We have nothing to do with illegal logging," The Borneo Post, 23 June 1993.

¹⁷⁶Doug Tsuruoka, "Cutting down to size," FEER, 4 July 1991, p.44.

export and import documents. Inside Sabah, Inchcape would replace forestry and customs officials who verify volumes, tree diameters, species type, and tax and royalty assessments. Inchcape would also place inspectors in key importing countries, including Japan. According to Sabah forestry director Miller Munang, "the global approach -- checking shipments at both ends -- is the best way to plug the leak in the state coffers."¹⁷⁷ If, as Munang hopes, Inchcape inspections begin at the end of 1994, this could significantly increase state capacity to control illegal logging and tax evasion. Since foreigners are not linked to patron-client networks and are not involved in political struggles, in theory Inchcape inspectors could be far more effective than current state officials. But state leaders and implementors who feed on timber profits are unlikely to allow this to occur. It is more likely that Inchcape's proposal will be scuttled or that Inchcape inspectors will become pawns of the ruling elite to legitimize current practices.

In the early 1990s, the federal Inland Revenue Department began a campaign to stop transfer pricing by Borneo Malaysian timber firms. According to federal Primary Industries Minister Datuk Lim Keng Yaik, even though transfer pricing is exceedingly difficult to prove, in 1992 Inland Revenue forced numerous Sarawak timber companies to pay outstanding taxes, including one large

¹⁷⁷This quote is a summary of Munang's comments by Doug Tsuruoka, "Tree Cover: Malaysian state may hire Inchcape unit to track timber," FEER, 20 January 1994, p.54. This article describes Inchcape's proposal.

conglomerate which had to pay M\$100 million. As a result, he claims that transfer pricing has dropped to a "bearable minimum."¹⁷⁸ In late 1993, the federal police and Inland Revenue authorities searched Sarawak's Rimbunan Hijau Group (led by Datuk Tiong) for evidence of tax evasion. While the results of the investigation have not been disclosed, there is ample reason to be suspicious of Tiong. According to the financial records of Tiong's major company -- Rimbunan Hijau Sdn Bhd -- from 1976 to 1991 the company made a mere after-tax profit of M\$9.68 million on total revenues of M\$3.2 billion. As a result, Rimbunan Hijau Sdn Bhd only paid M\$20 million in federal corporate taxes.¹⁷⁹ Compared to state initiatives, the Inland Revenue Department has had a far greater impact on large companies, perhaps because Borneo Malaysian corporate links to federal authorities are often weaker than those to state leaders.

In the midst of Malaysia's vigorous campaign to reduce international criticism of its environmental practices, it is difficult to wade through the rhetoric and document concrete changes to timber management. Overall, there do seem to be marginal improvements, especially in hindering transfer pricing. But Borneo Malaysia is still far from reaching sustainable timber management. Harvesting rates are falling but this appears to be a response to declining timber stocks rather than better management.

¹⁷⁸Quoted in Raphael Pura, "Timber Baron Emerges From the Woods," AWSJ, 15 February 1994, p.4.

¹⁷⁹Ibid.

With powerful political patrons protecting major loggers, and with customs and forestry enforcement officers integrated into timber-based networks, large timber companies have largely escaped the 'crackdown.' When illegal loggers or smugglers are nabbed, they tend to be small-time operators or local swidden farmers. Sim Kwang Yang, an opposition member of parliament from Sarawak, succinctly summarized the current campaign to improve timber management: "On paper, there is a sluggish move in the direction of reduced logging under international pressure."¹⁸⁰

Keeping in mind domestic patron-client politics and timber policies in Borneo Malaysia, I now turn to assess Japan's ecological shadow of timber. I argue that the effects of Japanese investment, ODA, and conservation projects in Borneo Malaysia have been swamped by the impact of Japanese log purchases. Japanese trading companies have bought huge quantities of logs at prices far below the costs of regeneration and sustainable management. These logs -- rapidly extracted using Northern bulldozers and chain saws -- have stoked Japanese mills that churn out cheap, disposable plywood. Since the log export ban in Sabah, and the gradual log export restrictions in Sarawak, Japanese companies now import slightly more processed wood from Borneo Malaysia. As a result, Japanese consumption of sawn timber, plywood and veneer, and import barriers to manufactured timber are relatively more important factors shaping Borneo Malaysian timber management. However, the

¹⁸⁰Quoted in Michael Vatikiotis, "Clearcut Mandate," FEER, 28 October 1993, p.54.

residue of Japan's past log consumption, and lingering log purchases in Sarawak, have left the deepest scars on Borneo Malaysia's forests.

JAPANESE ODA IN BORNEO MALAYSIA

JICA and the OECF have only channelled a small amount of technical assistance and loans to Sabah forestry projects.¹⁸¹ The OECF has not provided any concessional loans to help finance plantation schemes.¹⁸² JICA currently has no projects in Sabah and there are no plans for future assistance.¹⁸³ JICA's last major forestry aid project in Sabah -- the Re-afforestation Technical Development and Training Project -- began in 1987 and expired in March 1994. This project was operated jointly by JICA and the state-controlled Sabah Forestry Development Authority (SAFODA). The state government provided funding, while JICA supplied experts on reforestation, equipment (such as bulldozers, front-end loaders, and fire-fighting equipment), and training in Japan. The main purpose of the project was to enhance planting techniques and train forestry personnel in silvicultural methods for timber plantations. The research concentrated on acacia mangium -- a fast-growing

¹⁸¹Interviews, Timber Association of Sabah, Kota Kinabalu, 8 February 1994; Institute for Development Studies, Kota Kinabalu, 12 February 1994; and Ministry of Tourism and Environmental Development, Kota Kinabalu, 15 February 1994.

¹⁸²Interview, Institute for Development Studies, Kota Kinabalu, 12 February 1994.

¹⁸³Interview, Senior JICA official, Sabah Re-afforestation Technical Development and Training Project, Kinarut, Sabah, 14 February 1994.

Australian hardwood imported to Sabah in the 1960s -- although there was some preliminary research on dipterocarp. Today, SAFODA controls this project, training new recruits using the knowledge and equipment supplied by JICA.¹⁸⁴

According to SAFODA and JICA officials, the SAFODA-JICA project was a resounding success.¹⁸⁵ SAFODA -- created in 1976 -- had made minimal headway in replanting in its first decade. But with JICA's advice and equipment, by 1993 SAFODA had planted 25,000 hectares of acacia mangium, and 8,000 hectares of rattan.¹⁸⁶ SAFODA has no ambitious plans to expand and only expects to plant around 2000 hectares every year.¹⁸⁷ To date, only a few thousand hectares of acacia mangium have been harvested. Most plantation logs have been sold to South Korea.¹⁸⁸

¹⁸⁴Interview, Consulate of Japan, Kota Kinabalu, 9 February 1994; Interview, Senior manager, SAFODA, Kota Kinabalu, 12 February 1994; and Interviews, Senior officials, Sabah Re-afforestation Technical Development and Training Project, from JICA and SAFODA, Kinarut, Sabah, 14 February 1994. For background, see "Japan helping in development of the forest plantations," The Star, 20 September 1991, pp.8-9; and JICA and SAFODA, Official Opening of the SAFODA-JICA Reafforestation Technical Development and Training Centre (Kota Kinabalu, Sabah: JICA-SAFODA, 1989).

¹⁸⁵Interview, Senior manager, SAFODA, Kota Kinabalu, 12 February 1994; and Interviews, Senior officials, Sabah Re-afforestation Technical Development and Training Project, from JICA and SAFODA, Kinarut, Sabah, 14 February 1994.

¹⁸⁶Interview, Senior manager, SAFODA, Kota Kinabalu, 12 February 1994.

¹⁸⁷Interview, SAFODA official, Sabah Re-afforestation Technical Development and Training Project, Kinarut, Sabah, 14 February 1994.

¹⁸⁸Plantations in Sabah are classified as agricultural enterprises and are exempt from the log export ban. Interview, Institute for Development Studies, Kota Kinabalu, 12 February 1994; and Interview, Senior manager, SAFODA, 12 February 1994.

JICA-SAFODA research on cross-breeding and silvicultural techniques improved the quality of acacia mangium plantations in Sabah. Trees are taller, straighter, grow faster, and have fewer blemishes. But compared to the problems confronting Sabah forestry managers, these efforts are minor. The project itself was quite small; only four, and sometimes five, JICA researchers worked at the project. Moreover, even if acacia mangium becomes an important 'agricultural commodity' able to thrive in degraded areas, it cannot replace the biodiversity and environmental benefits of natural forests or sufficiently substitute for the commercial value of dipterocarp logs. It is also unclear whether these plantations will actually reduce pressure on natural forests. In theory, plantations can create employment and provide an alternative wood source in severely degraded areas. But in practice, as in Indonesia, timber companies often maximize profits by clearing natural forests before establishing plantations.¹⁸⁹

Japan has provided no major loans or grants for Sarawak forestry projects.¹⁹⁰ There is now one major technical assistance project. In April 1993, JICA launched the Effective Wood Utilization Research Project and Timber Research and Technical Training Centre. There are four long-term Japanese experts

¹⁸⁹This evaluation of the JICA-SAFODA project is not a criticism of individual researchers. I was impressed by the competence and enthusiasm of JICA-SAFODA staff in Sabah, and within their mandate, these scientists made notable strides. But these were narrow, technical solutions with little impact on the sweeping environmental and management problems facing Sabah foresters.

¹⁹⁰Interview, Senior researcher, Forest Department, Kuching, 21 February 1994.

advising 8 Sarawak counterparts. As well, some Japanese specialists visit for one or two months. As part of this project, two or three researchers from Sarawak will study in Japan every year. In its first year, JICA spent ¥150 million. JICA's budget for 1994-95 is just over ¥67 million. This project is designed to provide equipment, technology, and advice to improve the efficiency of domestic processing. At present, Sarawak processors discard or burn 40 to 50 percent of logs. JICA's project is also supposed to encourage loggers to extract lesser quality, lesser known species. Better wood utilization coupled with improved efficiency will waste less wood and presumably reduce pressure on commercial species in the natural forests.¹⁹¹ While these efforts are laudable, as in Sabah, compared to the problems of timber management, JICA's overall financial and technical contribution has been inconsequential.¹⁹²

JAPANESE CORPORATE INVESTMENT IN BORNEO MALAYSIA'S TIMBER INDUSTRY

In Sabah, Japanese trading companies have invested minimal amounts in logging and processing.¹⁹³ As of December 1993, there

¹⁹¹Interview, Senior JICA official, Effective Wood Utilization Research Project and Timber Research and Training Centre, Kuching, 21 February 1994; also see JICA and Timber Research and Technical Training Centre, Sarawak Forest Department, "The Effective Wood Utilization Research Project in Sarawak, From April 1993 to March 1998," JICA and the Sarawak Forest Department, July 1993.

¹⁹²Interview, Foreign correspondent, Kuala Lumpur, 7 March 1994; and Interviews, WWF Malaysia, Petaling Jaya, 10 March 1994.

¹⁹³Interviews, Timber Association of Sabah, Kota Kinabalu, 8 February 1994; Institute for Development Studies, Kota Kinabalu, 12 February 1994; and Ministry of Tourism and Environmental

were 11 wood processing companies in Sabah with Japanese equity. These mills include veneer, plywood, sawn timber, and moulding.¹⁹⁴ Japanese investment is not likely to increase in the near future. Since the log export ban and the reduction in log output to 8 million cubic metres, Japanese investors have become even more reluctant to invest in Sabah forestry projects.¹⁹⁵ Furthermore, Sabah timber operators have become disillusioned with joint ventures. According to a Sabah business executive, local companies are wary of joint ventures with Japan since many lost money in the past. He argues there are two key reasons for this poor track record. First, some Japanese partners manipulated timber prices and undercut profit margins of joint ventures. In these cases, the Japanese joint venture partner, after consulting with their 'home' company, sold logs below the international market price to enhance the profits and economic stability of the company as a whole. Second, joint ventures often have lower production efficiency. Japanese (as well as U.S. companies) have a tendency to manage workers within their own cultural prism. As a result, Sabah

Development, Kota Kinabalu, 15 February 1994.

¹⁹⁴From the data bank of the Department of Industrial Development and Research, Sabah, Malaysia, supplied February 1994. Small foreign investments only require state approval while large ones necessitate federal permission. Of the 11 Japanese projects in Sabah, 7 were large enough to require federal endorsement.

¹⁹⁵Joe Hann Angkie, "Japanese sceptical on Sabah," Daily Express, 17 November 1993, pp.1-2; and Joe Hann Angkie, "Come, talk to us: TAS," Daily Express, 19 November 1993, p.1. The political struggle between Prime Minister Mahathir and Chief Minister Pairin further increased the reluctance of investors. See "No trade zone under PBS: KL," Daily Express, 15 February 1994.

workers -- who may, for example, respond poorly to anger -- are less productive.¹⁹⁶ Sabah's dominant timber operator -- the Sabah Foundation -- has moved away from joint ventures. For example, Sinoru Sdn Bhd -- a wood processing plant in Sandakan -- was originally a joint venture with Japan's Yuasa Trading Company. However, in 1989 after 15 years as a joint venture, the Foundation gained full control.¹⁹⁷

Most Japanese trading companies have avoided direct investments in logging in Sarawak. The few Japanese-Sarawak logging joint ventures have not been particularly successful. For example, Itochu's joint logging venture with Limbang Trading Company (owned by James Wong) was a public relations fiasco. A scandal erupted after it was disclosed that the company's logging roads had been funded by JICA and the EXIM bank.¹⁹⁸ Itochu withdrew in 1987 after intense public criticism, including a debate in the Japanese Diet. There have also been few Japanese wood

¹⁹⁶Interview, Sabah timber executive, Kota Kinabalu, 9 February 1994.

¹⁹⁷The Foundation's only remaining joint venture is Sabah Softwoods, an agro-forest plantation with the British company, North Borneo Timber (which holds a 40 percent share). The Foundation offered to buy these shares but North Borneo Timber refused. Interview, Senior executive, Yayasan Sabah [Sabah Foundation], Kota Kinabalu, 14 February 1994. For background on Sabah Softwoods, see Raymund G.S. Tan, "Tree Plantation -- The Sabah Softwoods Sdn Bhd Experience," in Ti Teow Chuan, ed. Opportunities and Incentives, pp.37-50.

¹⁹⁸Yoichi Kuroda, "Historical Overview of the Timber Trade and Forestry Development in East and Tropical Asia and the Pacific Nations," A Paper Presented at the International Workshop for Forest and Environmental Preservation in Asia-Pacific, Seoul, South Korea, February 1994, p.3.

processing joint ventures in Sarawak. In total, there have been about half a dozen, all with guarantees of access to the Japanese market.¹⁹⁹ Sarawak's Ministry of Resource Planning and the Sarawak Timber Industry Development Corporation have both urged Japanese companies to invest in processing.²⁰⁰ But these firms have shown little interest.²⁰¹ Rather than participate directly, trading companies prefer to purchase logs, and when necessary provide credit, equipment, and technical advice to facilitate logging.²⁰²

¹⁹⁹Interview, Senior official, Sarawak Timber Association, Kuching, 20 February 1994; [STA represents nearly 500 private logging and timber processing companies in Sarawak. Sarawak Timber Association Brochure, Kuching, undated]; and Interview, Senior official, Forest Department, Kuching, 17 February 1994.

²⁰⁰James Ritchie, "Sarawak to cut log production within two years," New Straits Times, 30 March 1992, p.3.

²⁰¹Taiwan is the most important investor in Borneo Malaysian wood manufacturing. Interviews, Department of Industrial Development and Research, Kota Kinabalu, 16 February 1994; and Sarawak Timber Industry Development Corporation, STIDC, Kuching, 17 February 1994.

²⁰²Japanese funds and equipment helped companies log Sarawak's hill forests during the 1980s. Kuroda, "Historical Overview," p.2. In 1987, Datuk Leo Moggie claimed that "the marketing of Sarawak timber is still very much controlled by the Japanese trading houses as Sarawak timber companies are largely dependent on these trading houses for their intricate line of credit." Quoted in Nigel Dudley with Sue Stolton, The East Asian Timber Trade and Its Environmental Implications (Surrey, UK: WWF UK, 1994), p.9, first quoted in E. Hong, Natives of Sarawak (Penang, Malaysia: Institute Masyarakat, 1987).

JAPANESE COMPANIES AND CONSERVATION IN BORNEO MALAYSIA

Japanese companies have not participated in conservation, or improving forestry management in Sabah.²⁰³ In the last few years, Sabah officials have tried to prompt major log buyers from Japan -- companies like Sumitomo, Itochu, and Marubeni -- to provide assistance for forestry management and conservation. But so far there has been no response.²⁰⁴ The Sabah Foundation -- which is now developing techniques and training personnel for enrichment planting in logged areas -- has received some support from two utility companies, the New England Power Service and the Dutch Electricity Generating Board, but nothing from Japan.²⁰⁵ According to a Sabah forestry official, Japanese companies seem far more concerned with developing new techniques to make temperate plywood than with ensuring a sustainable yield of tropical timber.²⁰⁶ Japanese trading companies have also not invested in timber

²⁰³Interview, World Wildlife Fund Malaysia, Kota Kinabalu, 15 February 1994.

²⁰⁴Interviews, Senior manager, Innoprise Corporation, 9 February 1994; and Sabah Forestry Department (Jabatan Perhutanan Sabah), Kota Kinabalu Branch, 16 February 1994.

²⁰⁵Interviews, Institute for Development Studies, Kota Kinabalu, 12 February 1994; and Senior executive, Yayasan Sabah [Sabah Foundation], Kota Kinabalu, 14 February 1994. Utility companies fund tropical forest plantations and rehabilitation to 'off-set' carbon dioxide emissions (utility companies discharge carbon dioxide while forests absorb it). This will presumably improve corporate image and perhaps reduce future 'carbon-taxes.' For details on the American and Dutch projects, see Michael Vatikiotis, "For Profit's Sake," FEER, 14 April 1994, p.68; "A Better Way to Cut Trees," Asiaweek, 28 April 1993, p.50; and M. Hamzah, "Down the beautiful green Danum," Sabah Times, 2 February 1994, p.4.

²⁰⁶Interview, Sabah Forestry Department (Jabatan Perhutanan Sabah), Kota Kinabalu Branch, 16 February 1994.

plantations in Sabah. In 1993, Sumitomo -- acting as a broker for two paper companies in Japan -- began negotiations for a large, joint venture plantation project. These companies, however, eventually lost interest.²⁰⁷ Japanese corporate executives are wary of the long-term commitments, financial risks, unclear land tenure, sudden political or policy changes, and world fluctuations in pulp and paper prices.²⁰⁸

Poor harvesting techniques and inefficient processors waste valuable wood and increase the pressure on commercial timber stocks. Although Japanese corporations have provided some equipment and technical advice for Sabah loggers and processors, there has been no systematic effort to enhance processing efficiency, recover timber waste, or improve cutting methods.²⁰⁹ Instead, Japanese trading companies have sent technicians to Sabah to guarantee that logs and sawn timber meet Japan's rigid cutting and manufacturing stipulations. These technicians ensure that the best timber reaches the Japanese market; they are not concerned

²⁰⁷Interview, Senior manager, SAFODA, Kota Kinabalu, 12 February 1994.

²⁰⁸To offset some of these concerns, in mid-1994 the Sabah government started drafting comprehensive investment guidelines. Interview, Institute for Development Studies, Kota Kinabalu, 12 February 1994.

²⁰⁹Interview, Institute for Development Studies, Kota Kinabalu, 12 February 1994. Some Sabah students have gone to Japan to train on high-tech forestry equipment. Quite naturally, these students become more comfortable with Japanese machines, and are more likely to purchase Japanese equipment in the future. Interview, Timber Association of Sabah, Kota Kinabalu, 8 February 1994.

with the process, only the end result.²¹⁰ In Sarawak, -- where processors waste as much as 50 percent of logs -- Japanese companies have also done little to improve efficiency. One exception is a Japan-Sarawak joint venture to produce Sarawak's first Medium Density Fibreboard (MDF) plant. Construction began in 1994 and production is expected to begin in 1996. There are five partners: Daiken Corporation of Japan holds 50 percent equity, Itochu (20 percent), the Sarawak Timber Industry Development Corporation (15 percent), the Sarawak company Proexcel (10 percent), and Datuk Wong's Limbang Trading Company (5 percent). The joint venture company -- Daiken Sarawak Sdn Bhd -- received a US\$50 million loan from the EXIM Bank of Japan. To make MDF, this plant will use wood scraps from plywood and saw mills. The company hopes by the end of this century to export 80,000 to 100,000 cubic metres of MDF.²¹¹

Sarawak has been attacked by environmentalists around the world for its forestry management and treatment of aboriginal peoples. Japanese companies have also been strongly criticized. Some of the harshest criticism has been levelled at Mitsubishi, even though, in terms of log purchases, other Japanese companies have a greater impact. To counteract these critics, Japanese companies have increased funding for public relations and made

²¹⁰Interview, Senior Sabah timber executive, Kota Kinabalu, 9 February 1994.

²¹¹Aden Nagrae Timor, "S'wak's first MDF plant to start construction April," The Borneo Post, 20 February 1994, p.6; Interview, Sarawak Timber Industry Development Corporation, Kuching, 17 February 1994; and Asian Timber, June 1994, p.7.

token contributions to forestry management in Sarawak, but there have been few serious efforts to improve timber management.²¹² For example, Mitsubishi partially funds the Bintulu project, a research experiment to recreate a natural rain forest.²¹³ According to a professor at the University of Tokyo, of all the recent corporate 'conservation' projects, the Bintulu project is designed the most for "show."²¹⁴

JAPANESE TIMBER PURCHASES FROM BORNEO MALAYSIA

Japan's primary impact on Borneo Malaysia's timber industry has been as a buyer of logs. Most of these logs have been used to make cheap plywood. Since the quality of wood in Sabah is higher than in Sarawak, after commercial timber stocks collapsed in the Philippines, Japanese companies turned first to Sabah.²¹⁵ In 1970, out of a total of 20.2 million cubic metres of Southeast Asian log imports, Japan imported 4.0 million cubic metres from Sabah and 1.9

²¹²Interviews, Senior official, Forest Department, Kuching, 17 February 1994; and Senior executive, Sarawak Timber Association, Kuching, 20 February 1994.

²¹³See Yusuf Hadi and Abas Said, "Planting Indigenous Tree Species To Rehabilitate Degraded Forest Lands: The Bintulu Project," in Ahmad Said Sajap et. al., eds., Indigenous Species for Forest Plantations, Proceedings of a national seminar, Faculty of Forestry, Universiti Pertanian Malaysia, Serdang, Malaysia, 23-24 April 1992, pp.36-44.

²¹⁴Confidential Interview, University of Tokyo, Tokyo, 17 May 1994.

²¹⁵The major Japanese companies in Sabah are Mitsui, Itochu, Iwai, Sumitomo, and to a lesser extent Mitsubishi. Interview, Sabah Sawmillers Industries Association, Kota Kinabalu, 16 February 1994.

million cubic metres from Sarawak. In 1978, Japan imported around 21.8 million cubic metres of Southeast Asian logs; 9.2 million cubic metres came from Sabah, and only 1.5 million cubic metres came from Sarawak. As Sabah logs became less abundant in the 1980s, and after Indonesia's log export ban, Japanese log purchases from Sarawak increased substantially. By 1987, Japan's total log imports had dropped to 13.7 million cubic metres. Sabah accounted for 7.0 million cubic metres, and Sarawak for 5.5 million cubic metres, together representing over 90 percent of all Japanese tropical log imports.²¹⁶

From 1979 to 1988, Sabah exported an annual average of around 9 million cubic metres of logs, worth more than US\$5.5 billion. About 80 percent was exported to Japan.²¹⁷ After 1987 Japanese log imports from Sabah steadily declined. In 1988, Japan imported 5.4 million cubic metres of Sabah logs. By 1991, Japanese log imports from Sabah had dropped to around 2.6 million cubic metres, although this still accounted for over 70 percent of Sabah's total log exports.²¹⁸ In 1992, Japan imported 2.1 million cubic metres of logs from Sabah. In 1993, as a result of the log export ban,

²¹⁶All figures are rounded to the first decimal point. Kuroda and Nectoux, Timber, Figure B7, p.118. Based on data from the Japanese Plywood Manufacturers' Association and the Japan Tariff Association. Also see Sarawak Timber Industry Development Corporation (Perbadanan Kemajuan Perusahaan Kayu Sarawak), (STIDC), Statistics of Timber and Timber Products. Sarawak 1993 (Kuching: STIDC, 1993), p.3.

²¹⁷Raphael Pura and Steven Jones, "Sabah Log-Shipping Cartel Defeats Rivals," AWSJ, 14 March 1989.

²¹⁸"Tokyo protests to KL over Sabah's ban on log exports," Straits Times, 8 May 1993, p.22.

Japanese log imports from Sabah plummeted to less than 300,000 cubic metres.²¹⁹ From 1987 to 1993, there were only marginal increases to Japanese plywood, sawn timber, and veneer imports from Sabah. In 1988, Japan imported 213,700 cubic metres of sawn timber, 200 cubic metres of plywood, and 80,200 cubic metres of veneer. In 1992, Japan imported 444,496 cubic metres of sawn timber, 14,965 cubic metres of plywood, and 201,616 cubic metres of veneer. After the log export ban, sawn timber and veneer imports did not change significantly, although plywood imports increased to over 120,000 cubic metres.²²⁰ As a result of these changes, total Japanese timber imports from Sabah (in roundwood equivalent), fell from nearly 7.5 million cubic metres in 1987, to 2.9 million cubic metres in 1992, to well below 1 million cubic metres in 1993.²²¹

As Sabah's log exports decreased from 9.4 million cubic metres in 1987 to 3.4 million cubic metres in 1991, Sarawak increased log

²¹⁹These figures are from the Japan Plywood Manufacturers' Association, Plywood Industry in Japan (Tokyo: Japan Plywood Manufacturers' Association, 1993), pp.24-25; the Japan Plywood Manufacturers' Association, Plywood Industry in Japan (April 1994), p.8; and data from the Japan Lumber Importers' Association, received by the author, 4 April 1994.

²²⁰From January to July 1993, China was the main market of Sabah plywood, accounting for 35 percent of total exports (Japan imported 20 percent). Korea was the major market for sawn timber, accounting for 34 percent of total exports (Japan imported 16 percent). Japan is the largest market for Sabah veneer, accounting for 42 percent of total veneer exports. This data was supplied by the Sabah Sawmilling Industries Association, February 1994.

²²¹This data was supplied by the Malaysian Timber Industry Board, Kuala Lumpur, March 9, 1994, and is based on data from the Statistics Department of Sabah. Except where noted, the figures for 1993 are based on data from January to October and extrapolated for the entire year.

exports, from 12.6 million cubic metres in 1987 to 15.9 million cubic metres in 1990 and 15.8 million cubic metres in 1991.²²² As logs became less accessible in Sabah, Japanese corporate purchases were a key force behind faster extraction in Sarawak. In 1988, Japan imported 5.3 million cubic metres of logs from Sarawak. Japanese log imports from Sarawak climbed to 6.7 million cubic metres in 1990 and then dropped slightly in 1991 and 1992 to around 6.5 million cubic metres. In 1993, after Sarawak increased its restrictions on log exports, Japanese log imports decreased to 4.9 million cubic metres.²²³ Over the same period, Japan imported more sawn timber and plywood, although veneer imports declined. In 1987, Japan imported 10,723 cubic metres of sawn timber, 2 cubic metres of plywood and 47,848 cubic metres of veneer. In 1992, Japan imported 54,668 cubic metres of sawn timber, 45,300 cubic metres of plywood and 18,449 cubic metres of veneer.²²⁴ As a result of these changes, total Japanese timber imports from Sarawak (in roundwood equivalent) increased from almost 6 million cubic

²²²Sarawak Timber Industry Development Corporation, Statistics of Timber and Timber Products. Sarawak 1993, p.3. Also see "Loggers' Lament," Asiaweek, 28 April 1993, p.49.

²²³These figures are from the Japan Plywood Manufacturers' Association, Plywood Industry in Japan (1993), pp.24-25; the Japan Plywood Manufacturers' Association, Plywood Industry in Japan (April 1994), p.8; and data from the Japan Lumber Importers' Association, received by the author, 4 April 1994.

²²⁴In 1992, Sarawak exported 10.5 million cubic metres of timber. Japan purchased 45 percent of this total; Taiwan, the second largest consumer of Sarawak timber bought 20 percent. In 1992, log exports provided the key source of forest revenue, earning M\$3.1 billion, compared to M\$385 million for sawn timber, and M\$255 million for veneer and plywood. Sarawak Forest Department, Forestry in Sarawak, p.34.

metres in 1987 to around 6.5 million cubic metres in 1992. In 1993, however, export restrictions reduced total Japanese timber imports to around 5.5 million cubic metres.²²⁵

JAPAN, TARIFF BARRIERS, LOG PRICES, AND SUSTAINABLE MANAGEMENT

As Borneo Malaysian processed timber imports to Japan increase, Japanese import tariffs on processed wood reduce timber revenues and, in theory, as in Indonesia, syphon money that could support sustainable management.²²⁶ Also as in Indonesia, the prices Japanese companies pay for Borneo Malaysian logs and processed timber are far below the cost of sustainable management. One angry Malaysian columnist writes: "Japan is gobbling our trees because they are dirt cheap. A jungle tree which took hundreds of years to grow is cheaper in Japan than a softwood pine that took only 20 years to grow. That's why Japan is using Malaysian timber for junk furniture and throw-away construction frames."²²⁷ Without prices that reflect environmental costs, there is little chance of

²²⁵These statistics were supplied by the Malaysian Timber Industry Board, Kuala Lumpur, March 9, 1994, and are based on data from the Statistics Department of Sarawak. The figures for 1993 are based on data from January to October and extrapolated for the entire year. Also see Sarawak Timber Industry Development Corporation, Statistics of Timber and Timber Products. Sarawak 1993, p.3.

²²⁶At an International Tropical Timber Council Meeting in May 1993, Chief Minister Taib called for unimpeded market access to allow Sarawak to reduce timber production yet still maintain sufficient funds for sustainable management. "Taib calls for unimpeded markets," Sarawak Tribune, 13 May 1993.

²²⁷Halimah Todd, "Japan Rubbishes Malaysian Timber," Utusan Konsumer, (May 1989), in World Rainforest Movement and Sahabat Alam Malaysia, The Battle, p.502.

sustainable management. Barney Chan, spokesman for the Sarawak Timber Association, argues: "If you give tropical timber a higher value, it allows us to harvest it in a fashion more friendly to the environment. We have all along been saying to the West: put your money where your mouth is. If you want to save the rainforest, give us a better price for timber."²²⁸ In theory, Chan is correct. Japan's extensive log purchases have played a key role in driving unsustainable timber management. But increasing prices is not an automatic solution. In a setting where particularistic, rent-seeking patron-client networks undermine state capacity to enforce rules and distort state policies, higher prices may simply add incentives to extract logs recklessly and make quick money.²²⁹

CONCLUSION

Patron-client politics and timber in Borneo Malaysia are intricately connected -- patron-client relations shape timber resource distribution and management while timber binds many of these links together. Like traditional patron-client relations, modern ties are vertical, instrumental, informal, reciprocal, and asymmetrical. Modern patron-client networks, however, have large, fluid peripheries, and are based less on loyalty and honour and more on self-interested material exchange, contributing to highly unstable ties which frequently rupture as political parties contest

²²⁸Quoted in "Loggers turn to copters as prices rise," The Borneo Post, 19 November 1993.

²²⁹The final chapter discusses this point further.

elections and jockey for control. This creates an unpredictable atmosphere that encourages fast, destructive logging. Political leaders have used timber concessions and profits to build and hold together multi-ethnic patron-client networks, and appease and coopt potential adversaries. As a result, patron-client ties strongly influence the allocation of concessions, licences and contracts, determining who primarily benefits from logging profits, and contributing to a complex distribution system that decreases transparency and accountability necessary for environmental management. Patron-client ties to timber operators at the top of the state also dilute political will and weaken state supervision of forestry and enforcement officers. In this context, timber-based patron-client networks are able to capture or coopt bureaus of the state. This contributes to many state implementors ignoring customs and management regulations in exchange for gifts, money, and career opportunities. In short, informal, particularistic relations are a critical force shaping formal timber institutions, policies and regulations in the clientelist states of Borneo Malaysia.

Sabah, which began large-scale logging before Sarawak, now has grave forestry problems. Poor management, weak enforcement, political links to logging concessions, unstable patron-client ties, and constant disputes with the federal government have contributed to over-logging and forest degradation. The dominance of the state-controlled Sabah Foundation -- rather than enabling the state to tackle unsustainable logging -- has contributed to

mismanagement as timber profits have been channelled to powerful political patrons such as Chief Ministers Mustapha, Harris Salleh, and Pairin. The 1993 ban on log exports, and the moves to tackle poor harvesting practices and illegal logging have done little to improve timber management. Annual log production has dropped; but this is more a result of declining stocks of commercial timber than better forestry management.

Sarawak has similar problems, but with a later start and more forest resources, there are still considerable areas of valuable commercial timber. Based on timber concessions and profits, top politicians such as Chief Minister Taib and Environment and Tourism Minister James Wong have built personal fortunes and powerful patron-client networks. These networks have distorted state policies and undermined state capacity to enforce timber regulations. Private-sector timber companies -- such as the Rimbunan Hijau Group (Datuk Tiong) and the Ekran Company (Datuk Ting) -- are protected by political patrons and assisted by forestry and enforcement officers. As a result, these corporations continue to extract unsustainable timber yields, ignore logging rules, conduct illegal logging and smuggling, elude state royalties and federal income taxes, and disregard conservation and silvicultural treatments. In the short-term, since Sabah's log export ban, Sarawak has benefitted from higher log prices. But these prices still fall far short of the costs of sustainable management. In addition, as in Indonesia and Sabah, government moves to build a domestic processing industry are unlikely to

promote sustainable logging. With similar political forces driving mismanagement, and Japanese corporate purchases expediting over-cutting, Sarawak appears headed down the same trail as Sabah, with Indonesia not far behind.

Unlike in Indonesia, Japanese ODA and investment have had minor implications for Borneo Malaysian timber management. Japanese tariff barriers have also had little impact on state and corporate revenues, although since 1993 this has become relatively more important. Nevertheless, Japan's shadow ecology has expedited the process of Borneo Malaysian deforestation. Japanese log purchases have provided incentives for destructive logging and crucial funds for patron-client networks. In many cases, Japanese equipment and advice also facilitated unsustainable logging. As Japanese imports of logs from Sabah increased in the 1970s and early 1980s, Sabah's primary forest cover fell sharply, from 55 percent of the total land area in 1973 to 25 percent in 1983. Today, only 413,000 hectares of Sabah's Commercial Forests are undisturbed. While Japan now has less impact on timber management in Sabah, massive log purchases in the 1970s and 1980s -- at prices far below the costs of sustainable management -- have left Sabah scrambling to find the funds and timber resources to save what remains of their commercial timber industry.

After exhausting much of Sabah's valuable commercial timber, Japanese corporations turned to Sarawak. Log imports from Sarawak grew from about 1.5 million cubic metres in 1978 to 2.3 million cubic metres in 1980 to 5.6 million cubic metres in 1988. By 1990,

Japanese log imports from Sarawak surpassed 7 million cubic metres. Today, even with restrictions on log exports, Japan imports around 5 million cubic metres of logs from Sarawak. Rather than encourage sustainable timber management, Japanese trading companies have been remarkably consistent: simply move to a new area as commercial log stocks fade or after governments impose log export restrictions. Predictably, these companies are now purchasing more tropical logs from Papua New Guinea and the Solomon Islands. As well, in preparation for the collapse of tropical log stocks, Japanese companies are developing new techniques to make temperate plywood and are importing more softwood from around the world.

Having analyzed the implications of patron-client relations for timber management, it is interesting to speculate on the possible impact of declining timber resources on patron-client relations since in Sabah and Sarawak these two issues are virtually inseparable -- a change in one will certainly result in a change in the other. Since patron-client clusters are largely bound together by timber profits, at the very least, depletion of timber resources will force patron-client clusters to reshape and realign, and perhaps more ominously, could destabilize the political system. Patron-client links now provide an essential source of stability and means of cooperation between the diverse ethnic and religious groups. If timber revenues evaporate, many patron-client links will dissolve, quite possibly realigning along religious or ethnic lines, especially since an economic crisis will likely accompany the collapse of the timber industry. Another result of the loss of

timber revenue could be increased calls from Sabah and Sarawak for greater autonomy from the federal government in Kuala Lumpur, especially control over oil revenues. Kuala Lumpur is, however, unlikely to concede control over this key resource and serious disputes could arise.²³⁰

²³⁰For a discussion of the tense relations between Kuala Lumpur and Sabah, see Audrey R. Kahin, "Crisis on the Periphery: The Rift Between Kuala Lumpur and Sabah," Pacific Affairs 65 (Spring 1992), pp.30-49.

Chapter Six
JAPAN, PATRON-CLIENT POLITICS,
AND THE COLLAPSE OF THE PHILIPPINE TIMBER INDUSTRY

As in Indonesia and Borneo Malaysia, commercial loggers have been a key force behind deforestation in the Philippines. Poor selective cutting techniques, illegal extraction, and logging roads have cleared and degraded primary forests, making these areas more accessible to slash-and-burn farmers and more susceptible to devastating fires. In these ways, commercial loggers have not only degraded vast areas but also triggered the process that has stripped much of the Philippines.¹ Over the last 20 years, on average 2.5 percent of Philippine forests have disappeared every year, three times the rate of worldwide tropical deforestation.² During the 1970s and 1980s, over 80 percent of the remaining primary forests vanished. Today, there are only about 800,000 hectares of primary dipterocarp forests.³ If logging continues at

¹For a discussion of the links between logging and deforestation in the Philippines, see David M. Kummer, Deforestation in the Postwar Philippines (Chicago: The University of Chicago Press, 1991), especially, pp.62-63, p.69, and pp.95-100. Also see Hiroyasu Oka, "Process of Deforestation in the Philippines," in The Current State of Japanese Forestry (VII): Its Problems and Future (Tokyo: The Japanese Forest Economic Society, 1991), pp.93-98.

²"Manila fears it cannot protect rich Subic forest," New Straits Times, 26 April 1992, p.14.

³Interview, College of Forestry, University of the Philippines at Los Banos, 1 February 1994. There may in fact be less than 700,000 hectares of primary dipterocarp forests. See P. Garrity, David M. Kummer, and Ernesto S. Guiang, "The Philippines," in Sustainable Agriculture and the Environment in the Humid Tropics,

the current rate, almost all of these forests will disappear over the next decade.⁴

This chapter begins the ascent to the conclusion. Since the Philippines is deeper in the spiral of deforestation, an analysis of past and current trends sheds light on the future of the forests of Indonesia and Borneo Malaysia. I argue that after World War II, ubiquitous patron-client networks at the top and middle levels of the state debilitated state capacity to enforce timber policies. In the 1950s and 1960s, Congress members used timber profits and licences to reward clients and finance expensive electoral campaigns. In the 1970s, President Ferdinand Marcos (1965-86) built a large and dominant patron-client network, especially after declaring martial law in 1972. As Marcos battled to remain supreme in the societal web of clientelist relations, he allowed rent-seeking, particularistic patron-client clusters to flourish at all levels of the state and society. On an unbelievable scale and at a frantic pace, powerful patrons and well-connected clients plundered natural resources to support extravagant whims and opulent lifestyles. In this setting, poorly supervised, demoralized state implementors were absorbed by timber-based patron-client networks. State bureaus were captured by private

Committee on Sustainable Agriculture and the Environment in the Humid Tropics, National Research Council (Washington: National Academy Press, 1993), p.592.

⁴Percy E. Sajise, et al., State of the Nation Reports. Saving the Present For The Future: The State of the Environment (Manila: Centre for Integrative and Development Studies and University of the Philippines Press, 1992), p.14; and Garrity, Kummer, and Guiang, "The Philippines," p.550.

interests; rather than enforcing management principles, the Philippine clientelist state protected and facilitated rapid and destructive logging.

After the fall of Marcos in 1986, key patron-client ties at the top of the state dissolved. Many realigned, however, and today there are still formidable timber-based networks, especially in the middle-level of the state and in the outer regions. In many ways, post-Marcos elites have restored the politics of the 1950s and 1960s, when politicians battled for votes and political parties riddled by patron-clientelism jockeyed for control. Unlike the 1950s and 1960s, however, there are no longer sufficient timber stocks to sustain large patron-client networks, and top state elites now have fewer ties to timber operators. This has contributed to an incremental increase in state capacity to manage the forests. But pervasive patron-client ties in the middle-level of the state, especially in regional areas, still distort timber policies and undermine state enforcement. As a result, although there have been marginal improvements in state management, the Philippine clientelist state is still unable to enforce concession guidelines, collect taxes and royalties, prevent illegal logging, and ensure adequate conservation, reforestation, and regeneration of natural forests.

From the early 1950s, huge purchases of cheap logs by Japanese companies -- backed by strategic credit and investments -- accelerated the process that led to the environmental wasteland of the late Marcos years. Today, there are few Japanese corporate

investments or timber purchases. Nevertheless, the residue of Japan's ecological shadow of timber compounds the problems facing Filipino managers. Filipinos are now absorbing the costs of substantial profits reaped by Japanese companies in the past. State managers must cope with and pay for the consequences of extensive deforestation, including soil erosion, river siltation, flash floods, climatic instability, and inadequate timber stocks.⁵ Burdened by past environmental abuse by Filipino elites and their Northern allies, it is hardly surprising that current managers are struggling to find the funds and means to preserve the scattered primary forests, and reforest the swaths of degraded areas. One obvious place to look is Japan. But current Japanese ODA does not compensate for past practices. At present, there are no JICA technical cooperation projects or grants. Instead, the Japanese government has emphasized 'environmental loans'. But these have major flaws. In the case of the Forestry Sector Program Loan (US\$120 million from 1988-1992), rather than reviving the environment, this loan will eventually add even more pressure to extract and export natural resources to acquire foreign exchange

⁵The Philippines has one of the world's highest rates of soil erosion. Debora MacKenzie, "Uphill battle to save Filipino trees," New Scientist, 30 June 1988, p.42. One study estimated that soil erosion -- which reduces agricultural productivity and potential hydro-electric power, and disrupts irrigation and fisheries -- costs the Philippines over half a billion U.S. dollars every year. Summarized in Frances F. Korten, "Environmental Loans: More Harm Than Good?" Paper Presented at the Fifth Annual Conference of the Northwest Consortium for Southeast Asian Studies, Vancouver, British Columbia, October 1992, p.5. For more details on the environmental, economic, and social costs of deforestation in the Philippines, see Hurst, Rainforest, pp.165-171.

and repay the national debt.

This chapter is divided into four parts. I begin by explaining key changes to Filipino patron-client relations. I concentrate on shifts prior to 1972, changes after Marcos declared martial law in 1972, and realignments after Corazon Aquino became president in 1986. In the second section, I document links between state patrons and timber operations, emphasizing the continuity of patron-client ties across the regimes of Marcos, Aquino, and Fidel Ramos. In the third part, I examine the impact of pervasive patron-clientelism on Philippine timber management, including the effect on the Department of Environment and Natural Resources (DENR), legal concessionaires, illegal loggers and smugglers, log export bans and restrictions, processing policies, local forest management, and conservation and reforestation. In the final section, I outline the historical impact of Japanese investment, trade, and development assistance on Philippine timber management. I then discuss the residual effect of Japan's shadow ecology of timber, and the current influence of environmental loans.

'TRADITIONAL' AND 'MODERN' PATRON-CLIENT RELATIONS

Traditional patron-client relations in the Philippines are multifarious, asymmetrical, personal, non-contractual, and grounded in a strong cultural norm of reciprocal obligation (*utang na loob*). As in most of rural Southeast Asia, these ties initially developed between land owners and tenant farmers. Land owners provided agricultural fields, credit, security, and prestige in exchange for

loyalty, obedience, labour, and collective power. These ties persisted for decades, often crossing generations of both patron and client families. After the Second World War, with the onslaught of 'modernization' -- urbanization, a market economy, a larger middle-class, more educational opportunities, social upheavals, changes to agricultural production, and an expanding bureaucracy -- patron-client networks became larger and more complex. These networks integrated people with diverse occupational backgrounds and from all levels of society.⁶ Shopkeepers, rice dealers, employers, labour leaders, bureaucrats, and local politicians became patrons. As the bureaucracy expanded, patrons increasingly relied on the state as a source of patronage. In this new setting, patron-client ties -- while still personal, informal, and asymmetrical -- became based more on direct exchange of state resources and less on loyalty, reciprocal obligation, family wealth, and feelings of shame. These large, material-based patron-client networks are more unstable than traditional ties as

⁶Benedict Kerkvliet documents the decline of traditional patron-client relations in Central Luzon in the 1950s. Benedict Kerkvliet, The Huk Rebellion: A Study of Peasant Revolt in the Philippines (Berkeley: University of California Press, 1977). For a description of changes to traditional patron-client relations in other local areas, see the collection of essays in Benedict J. Kerkvliet and Resil B. Mojares, eds., From Marcos To Aquino: Local Perspectives On Political Transition in the Philippines (Manila: Ateneo de Manila University Press, 1991), especially Alfred W. McCoy, "The Restoration of Planter Power in La Carlota City," pp.105-142; Cristina Blanc-Szanton, "Change and Politics in a Western Visayan Municipality," pp.82-104; Fernando N. Zialcita, "Perspectives on Legitimacy in Ilocos Norte," in Kerkvliet and Mojares, eds., From Marcos To Aquino, pp.266-285; James F. Eder, "Political Transition in a Palawan Farming Community," pp.143-165; and Resil B. Mojares, "Political Change in a Rural District in Cebu Province," pp.82-104.

patrons and clients switch allegiances to maximize opportunities. Modern networks often dissolve when a patron dies or loses political or economic clout. Today, modern networks are pervasive, although some traditional ties still remain, mostly in outlying areas. Alliances between these modern patron-client networks create factions, often generating strong cleavages among Filipino elite.⁷

Political and corporate activities are often organized around families. Some families even maintain their own bank. In the 1960s, about 400 families dominated the Philippines. By the end of the 1970s, this had dropped to around 60 families.⁸ Filipino families are built on both real and ritual kinship ties. *Compadrazgo*, or ritual kinship, joins families of similar socio-economic rank as well as poor families to wealthier ones. These ties are often cemented by a member of an influential family acting

⁷For a discussion of traditional and modern patron-client networks in the Philippines, see K.G. Machado, "Continuity and Change in Philippine Factionalism," in Frank P. Belloni and Dennis C. Beller, eds. Faction Politics: Political Parties and Factionalism In Comparative Perspective (Santa Barbara, California: ABC-CLIO, Inc., 1978), pp.193-217; K.G. Machado, "From Traditional Faction to Machine: Changing Patterns of Political Leadership and Organization in Rural Philippines," Journal of Asian Studies 33, no. 4 (August 1974), pp.523-547; Thomas C. Nowak and Kay A. Snyder, "Clientelist Politics in the Philippines: Integration or Instability?" The American Political Science Review 68 (1974), pp.1147-1170; and Thomas Nowak and Kay Snyder, "Urbanization and Clientelist Systems in the Philippines," Philippine Journal of Public Administration, 14-15 (July 1970), pp.259-275. For a critique of patron-client analysis in the context of the Philippines, see Willem Wolters, Politics, Patronage, and Class Conflict in Central Luzon (The Hague: Institute of Social Studies, 1983).

⁸David G. Timberman, A Changeless Land: Continuity and Change in Philippine Politics (New York: M.E. Sharpe, 1991), p.17.

as a godfather (*compadre*) for a child of a less powerful family. Families strive to secure the strongest godfather possible. Marcos was reportedly a godfather for around 20,000 people.⁹ Since Filipino families include the relatives of both spouses as well as ritual ties, families are often quite large. This has important implications for modern patron-client links. Compared to other Southeast Asian countries, Filipino patron-client networks tend to have stronger feelings of loyalty and reciprocity.¹⁰ Even distant family members are supported, contributing to rampant corporate and government nepotism. As well, the "strength of blood and ritual kinship ties discourages trust among non-family members," and encourages an 'us' verses 'them' attitude.¹¹ Finally, the large size of Filipino families makes it difficult to distinguish between patron-client networks and families; in many cases, a family is the core of a patron-client network.¹²

⁹Bryan Johnson, The Four Days of Courage (New York: The Free Press, 1987), p.27, cited in Timberman, A Changeless Land, p.16.

¹⁰Eisenstadt and Roniger, Patron, clients and friends, p.122.

¹¹Timberman, A Changeless Land, p.17.

¹²The impact of patron-client links on Filipino political and social interaction varies depending on the region, historical period, ethnic group and issue. For timber management, patron-client ties are critical. Of course, other factors -- both in tandem with patron-clientelism and separately -- can also have decisive effects on political and social action. For example, vertical clientelist ties do not eliminate struggles between classes. Kerkvliet persuasively argues: "The question is neither one of class awareness versus patron-client ties (as some scholars have suggested) nor one of whether people act according to class interests or according to vertical linkages. Both occur...often for the same individuals." Benedict J. Kerkvliet, Everyday Politics in the Philippines: Class and Status Relations in a Central Luzon Village (Berkeley: University of California Press,

PATRON-CLIENT RELATIONS (1898-1972)

After the U.S. colonized the Philippines in 1898, more and more patrons exploited bureaucratic connections and resources to obtain benefits for their clientele. As the bureaucracy grew, especially after independence in 1946, "congressmen and senators, the president and close associates, influential businessmen, members of the press, bureau directors and office chiefs all made telephone calls, wrote letters of recommendation or personally accompanied their protégés to agencies where vacancies and new positions were available."¹³ As more patrons relied on state resources to sustain their networks, bureaucratic appointments, licences and funds were increasingly allocated based on personal contacts rather than on competitive bids or exams.¹⁴ In the 1950s and 1960s, loyal Congress members -- especially from the government party -- gained informal powers to appoint followers to bureaucratic positions. Through this clientele and their control over the budget, political leaders dominated the bureaucracy. Instead of functioning on principles of merit and efficiency, bureaucratic decisions and policies were overwhelmed by particularistic, opportunistic patron-client interaction. In this

1990), p.244.

¹³Eisenstadt and Roniger, Patrons, clients and friends, p.128. For background on the Philippine bureaucracy, see Raul P. De Guzman, Alex B. Brillantes, Jr., and Arturo G. Pacho, "The Bureaucracy," in Raul P. De Guzman and Mila A. Reforma, eds., Government and Politics of the Philippines (Singapore: Oxford University Press, 1988), pp.180-206.

¹⁴Hutchcroft, "Oligarchs and Cronies," p.422.

setting, "departmental secretaries, bureau directors and office division chiefs -- themselves recruited from among the party-faithful clients and political proteges, or clients of heavy financial contributors -- mediated between their own clients and the more powerful politicians."¹⁵ Patron-client networks -- often capitalizing on low state wages -- captured tentacles of the state, debilitating the state as it battled societal interests for control over the rules of the game. This created a weak state, "unable to collect more than a small share of the GNP in taxes, effectively regulate powerful economic groups, or efficiently distribute social services."¹⁶ Not surprisingly, the state also lacked the political will, requisite attitudes, and institutional capacity to manage natural resources on a sustainable basis.

Before 1972, patron-client interaction overwhelmed political parties and elections. Federal politicians focused on distributing patronage and maintaining close links to "lower-level political leaders who had personal followings and hence votes they could deliver 'at will'."¹⁷ Congress became a forum to carve slices of patronage. Political parties were essentially "hierarchies of patron-client networks."¹⁸ As a result, political alliances were often held together by patron-client ties rather than ideological beliefs. Elections were "plagued by factionalism, by party

¹⁵Eisenstadt and Roniger, Patrons, clients and friends, p.128.

¹⁶Wurfel, Filipino Politics, p.327.

¹⁷Eisenstadt and Roniger, Patrons, clients and friends, p.129.

¹⁸Wurfel, Filipino Politics, p.96.

switching, by rebels who contested the official party candidates, and by independent candidates."¹⁹ In this setting, many clients exchanged their votes for money, gifts, and jobs. As well, financial backers of victorious politicians often received senior administrative posts. Elections were expensive and political power was often limited to wealthy families.²⁰ The 1969 election apparently cost 1 billion pesos, nearly one-quarter of that year's national budget. By this time elections were so expensive, they "trigger[ed] massive government deficits and ultimately the devaluation of the peso."²¹

MARCOS AS SUPREME PATRON (1972-1986)

After Marcos declared martial law in 1972, his family and clients (cronies) -- especially from his home province of Ilocos Norte -- consolidated control over the distribution of patronage.²² Rather than dispersing "the national network of patron-client

¹⁹Jose V. Abueva, "Philippine Ideologies and National Development," in De Guzman and Reforma, eds., Government and Politics, p.52.

²⁰Ibid.

²¹Wurfel, Filipino Politics, p.329 (quote), and p.100 for the data. As traditional patron-client relations evolved in the 1950s and 1960s, it was increasingly common for voters to accept money from several candidates or accept money from one candidate and vote for another. This further increased election expenses. See Ibid., pp.99-100.

²²For Ilocanos, Marcos was their apo, or supreme patron. According to McDougald, "all his trusted generals in the military, and many of his trusted advisors, were Ilocano." Charles C. McDougald, The Marcos File: Was he a Philippine Hero or Corrupt Tyrant? (San Francisco: San Francisco Publishers, 1987), p.114.

relations," Marcos manoeuvred to centralize control over these networks. To increase his power, he decided "to become 'supreme godfather' and acquire the personal wealth that would reinforce that role. He eliminated his competitors at the national level and strengthened his own position in regions and provinces by dealing more directly with the *barangay*" [the smallest unit of local government].²³

Friends, followers, and relatives of Ferdinand and Imelda Marcos received government credit, licences, tax exemptions, monopolistic contracts, classified government information, and privileged access to foreign aid and joint ventures. Funds from the World Bank, the International Monetary Fund, and Northern bilateral donors and commercial banks -- especially the U.S. and Japan -- fuelled pervasive patronage. In 1991, the Philippine Solicitor General alleged that Japanese firms -- including Mitsui, Nissho Iwai, Marubeni and Sumitomo -- channelled US\$55 million of aid money to Marcos's bank accounts in Hongkong and Switzerland.²⁴ In this setting, Marcos and his clients -- such as Herminio Disini and Ricardo Silverio (manufacturing), Eduardo Cojuangco (coconuts), Antonio Floirendo (bananas), and Roberto Benedicto (sugar) -- built

²³Wurfel, Filipino Politics, p.152-153. There are five levels of local government: regions; provinces; cities; municipalities; and barangays. In 1986, there were 42,000 barangays. For background, see Raul P. De Guzman, Mila A. Reforma, and Elena M. Panganiban, "Local Government," in Guzman and Reforma, eds., Government and Politics.

²⁴"Japanese envoy and Manila legal chief in row over 'bribes' to Marcos," Straits Times, 14 December 1991, p.16.

immense personal and corporate fortunes.²⁵ Marcos alone hoarded a staggering US\$5 to US\$10 billion.²⁶ Much of the wealth of Marcos's patron-client network was invested or hidden overseas, often in Swiss Bank accounts and Northern real estate, especially in the United States.²⁷

Marcos justified martial law as necessary to purge corrupt officials and establish a 'New Society'. At first, state patronage abated and state capacity to develop policies and enforce rules appeared to increase; but by late 1973, widespread patronage had resurfaced. Although Marcos encased the martial law years in anti-corruption rhetoric, there were few concrete results. For example, in 1975 Marcos fired more than two thousand 'corrupt' officials, including judges, cabinet members, senior administrators, and middle-level bureaucrats. However, "it was soon discovered that many who were 'dismissed' had already retired or died. And many charges against the more influential were 'discovered' to have been 'unfounded.'" Acute observers opined that those actually dismissed were those with poor connections."²⁸ Patronage reached phenomenal levels over the next decade. The Commission of Audit estimated

²⁵Wurfel, Filipino Politics, p.237. For a detailed description of the ties between Marcos, his family, and his followers, and the their incredible extravagance and waste, see Ricardo Manapat, Some Are Smarter Than Others: The History of Marcos' Crony Capitalism (New York: Aletheia Publications, 1991), especially chapter three.

²⁶Belinda A. Aquino, Politics of Plunder: The Philippines Under Marcos (Manila: Great Books Trading and U.P. College of Public Administration, 1987), p.14.

²⁷Manapat, Some Are Smarter Than Others, see chapter four.

²⁸Wurfel, Filipino Politics, p.137.

that bribes accounted for 10 percent of GNP between 1975 and 1980.²⁹

The military was the backbone of martial law, providing Marcos with an effective tool to suppress dissent. Marcos promoted loyal generals, retired reluctant followers, and judiciously distributed patronage to senior officers -- including top positions in state corporations.³⁰ In addition, many military officers became middle-level patrons, and "speeding applications and cutting red tape often became a colonel's rather than a congressman's function."³¹ As a result, the military establishment developed a vested interest in preserving the status quo. As David Wurfel notes, "whether profiting or sacrificing, all officers were becoming enmeshed more deeply in increasingly centralized patronage networks. School ties and ethnicity created factions, but ultimately it was the superpatron who provided material benefits, and so even factions were organized by patronage."³² By linking key generals to his patron-client network, and allowing middle-level officers to skim personal benefits, Marcos maintained solid control over the military, although there were certainly rumblings from some junior

²⁹Kummer, Deforestation, p.71.

³⁰Alex B. Brillantes, Jr. "The Executive," in De Guzman and Reforma, eds., Government and Politics, p.125. Through loyal clients and prudent appointments, Marcos also kept firm control over the judiciary. See Froilan M. Bacungan and Alfredo Tadiar, "The Judiciary," in De Guzman and Reforma, eds., Government and Politics, pp.164-179.

³¹Wurfel, Filipino Politics, p.144.

³²Ibid., pp.150-151.

officers who advocated greater efficiency and less corruption.

Under Marcos, the bureaucracy was emasculated by rent-seeking patron-client networks. Martial law undercut legislative patrons, increasing the scope and power of local and intermediate bureaucratic patrons and intrabureaucratic patron-client units.³³ Bureaucratic patron-client networks proliferated as Marcos placed clients in strategic positions, rewarded loyal followers, and punished dissidents.³⁴ By the mid-1970s, competitive exams were used to fill only 35 percent of government positions. Political manipulation of bureaucrats and flagrant accumulation of personal profits by state leaders lowered bureaucratic morale and justified similar activities among state implementors. As a result, instead of working to promote state objectives, bureaucrats from top to bottom worked to maximize particularistic goals and personal profits.³⁵

Marcos used patronage and loyal clients to control outlying regions. By 1979, Marcos had appointed 26 percent of the country's mayors. In 1981, Imelda Marcos introduced the Movement for Livelihood and Progress to provide interest-free 'loans' to the

³³Eisenstadt and Roniger, Patrons, clients and friends, p.130. For background on the legislature and bureaucracy, see De Guzman, Brillantes Jr., and Pacho, "The Bureaucracy," pp.180-206; and Aurora C. Catilo and Proserpina D. Tapales, "The Legislature," in De Guzman and Reforma, eds., Government and Politics, pp.132-163.

³⁴Marcos required bureaucrats to file letters of resignation, leaving everyone vulnerable to being suddenly dismissed. Brillantes, Jr., "The Executive," p.125.

³⁵Of course, not all bureaucrats were absorbed by patron-client networks. Some technocrats had clear policy goals or had a combination of policy and particularistic objectives.

'poor'. In effect, this program provided cash to loyal local leaders and their clients. Loan procedures were ignored and few were repaid. According to Wurfel, "the style of the program created the impression of a patroness distributing largesse; few perceived the money as repayable."³⁶ While Marcos extended his patron-client network down to the villages, this did not increase the total amount of patronage distributed to rural areas. With fewer elections -- and with few restrictions on the manipulation of election results -- rural areas actually received less patronage.³⁷

PATRON-CLIENTELISM AND THE FALL OF MARCOS

In the twentieth century, Filipino government leaders have faced two contradictory pressures that shape their legitimate right to rule: traditional demands by clients for particularistic benefits; and a legal regime that precludes the use of public office for private profit. Politicians must manoeuvre in a mine field between 'acceptable legal bounds' and 'acceptable levels of patronage.' In this setting, too much patronage can undermine legitimacy, as can too little. When the interest of one network supersedes all else, material exchanges, rather than supporting stability and legitimacy, can spiral 'out of control' and corrode elite support. Throughout the 1970s, as a result of reasonable economic growth and substantial international funding, most Filipino economic elites supported Marcos. But increasingly

³⁶Wurfel, Filipino Politics, p.257.

³⁷Ibid., p.131.

blatant patronage by state-owned firms and the personal extravagance of key allies -- including Imelda Marcos³⁸ -- began to undermine the economy in the early 1980s. International creditors lost confidence in Marcos, the economy stagnated, and opposition from Filipino economic elites mounted.³⁹ As his legitimacy eroded, Marcos responded with "massive outlays to insure the loyalty of local elites."⁴⁰ But without international support or a vibrant economy, Marcos could no longer sustain his vast network and still appease state and societal dissidents. By the time 'People Power' vaulted Corazon Aquino to the presidency in 1986, Marcos and his clients -- in their desperate bid to hold together their unwieldy patron-client network -- had plundered and decapitated the state.

PATRON-CLIENT NETWORKS AND PATRONAGE SINCE 1986

The Aquino government restored key features of pre-martial law politics, including the pre-1973 constitution, many former politicians, and pervasive, decentralized state patronage.⁴¹ After

³⁸Imelda Marcos had her own followers and in many ways had a confrontational relationship with her husband. Yet her actions still undermined President Marcos's legitimacy.

³⁹Hutchcroft, "Oligarchs and Cronies," pp.445-446. Martial law was ostensibly lifted in 1981 but Marcos still maintained the same level of control. Brillantes, Jr., "The Executive," p.126.

⁴⁰Wurfel, Filipino Politics, p.274. Unlike in most of the country, the people of Ilocos Norte backed Marcos to the bitter end. To Ilocanos he was an effective patron and therefore a legitimate ruler. See Zialcita, "Perspectives on Legitimacy," pp.266-285.

⁴¹Timberman, A Changeless Land, p.3; Wurfel, Filipino Politics, p.326; and Hutchcroft, "Oligarchs and Cronies," pp.447-448.

Marcos fell, his network fragmented. But instead of dissipating, these ties realigned and power dispersed among rival networks. While Aquino was not personally 'corrupt', and despite public anti-corruption campaigns, she was not able to undercut systemic state patronage. She could not even purge the bureaucracy; instead, "it was filled to overflowing by some of her less respected allies."⁴² Ramos has also encased his reign in flamboyant campaigns to eradicate state patronage.⁴³ But like Aquino, he has had little success. Today, patron-client networks permeate the state and weaken state capacity to develop and implement policies. Informal material exchanges persist; personal links to political and bureaucratic patrons remain a decisive factor in obtaining state licences, contracts, and tax breaks; and personal contacts -- rather than objective judicial or police procedures -- continue to shape the interpretation and enforcement of laws. Not surprisingly, patron-client relations still dominate resource management. As Paul Hutchcroft vividly explains, "once again, as in the pre-martial law years, a decentralized polity simply gives more oligarchs a chance to claw for the booty of state."⁴⁴ Along similar lines, David Kummer argues that Filipino politics remains

⁴²Wurfel, Filipino Politics, p.324.

⁴³See Bobby Capco, "Ramos: Anti-graft drive real, plunderers to hang," The Philippine Star, 22 January 1994, p.1.

⁴⁴Hutchcroft, "Oligarchs and Cronies," p.447. Post-Marcos Philippines confirms the persistence and resilience of patron-client networks. It also supports the picture of the Philippines as a clientelist state rather than a neo-patrimonial one which emphasizes one dominant patron.

"basically a form of 'institutionalized looting,' with the main purpose of public office being to enrich oneself and one's followers."⁴⁵

Voter attitudes, a cultural proclivity to view transactions as personal and to feel obligated to reciprocate, cynical views of politicians and state laws, low bureaucratic salaries, and general poverty contribute to the persistence of patron-client ties and state patronage. Many Filipinos "expect their votes to be rewarded concretely with better roads and schools, with government jobs, and with 'a little help' when confronting stubborn officials or unreasonable regulations. Politicians who do not comply or who, for lack of influence in the right places, cannot comply, soon find themselves officeless."⁴⁶ As a result, members of Congress often focus on securing 'pork barrel' projects for their constituencies rather than debating and drafting national or regional socio-economic development policies.

The clash between traditional values and modern (American) legal and political norms contributes to flagrant violations of laws and to a cynical public view of the state. According to David Timberman, "the conflict between traditional and modern values is exemplified by the contradictory tendency of Filipinos to pass laws and regulations against corruption and nepotism (in a desire to be

⁴⁵Kummer, Deforestation, p.71. Kummer borrows the term 'institutionalized looting' from Warden Bello, "From Dictatorship to Elite Populism: The United States and the Philippines Crisis," in Morris H. Motley, ed., Crisis and Confrontation: Ronald Reagan's Foreign Policy (Teetse: Roman and Littlefield, 1988).

⁴⁶Rush, The Last Tree, p.33.

'modern'), even though the norms of traditional society, which emphasize kinship ties, reciprocity, and personal loyalty, compel almost everyone to ignore or violate these laws."⁴⁷ This has contributed to government campaigns to purge corrupt officials, and to incessant charges of corruption by opposition parties, NGOs and the media. However, although token scapegoats are sometimes punished, only marginal progress has been made in curbing the use of public office for private gain. As Timberman notes, "it is a paradox of Philippine politics that corruption is assumed to be endemic to politics and government, but at the same time 'exposing' corruption is a time-tested political tactic and guaranteed vote-getter."⁴⁸ This has undermined public faith in legal institutions and government regulations.

A cultural tendency to perceive transactions as personal reinforces patron-client ties between state officials and societal members. In this cultural prism, "routine political, bureaucratic, or business transactions considered in the West to be *impersonal* (such as voting, applying for a permit or licence, or entering into a business contract) are instead considered to be *personal* interactions involving favours or other unspecified obligations."⁴⁹ According to Carle Landé, "when a congressman proudly 'gives' a town a new chapel or bridge, few may know or care whether the money

⁴⁷Timberman, A Changeless Land, p.14. Filipino cynicism is fortified by the memory of Marcos who coated most of his actions in a constitutional veneer.

⁴⁸Ibid., p.25.

⁴⁹Ibid., p.22.

came from his own pocket or from the government."⁵⁰ As a result, patron-client links flourish as people feel obliged to individual state representatives rather than to the state itself. Low state salaries -- undercut by inflation and general poverty -- further strengthen patron-client ties. Rush argues that in poor countries like the Philippines, almost everyone searches vigilantly for ways of "getting a little more." For this reason, "from top to bottom, civil servants are often entangled in relationships of mutual assistance with others outside government." There are few working for the "common good," and state laws are often sacrificed for personal profit.⁵¹

In sum, there is surprising continuity across post-war political regimes in the Philippines. In the 1950s and 1960s, particularistic, rent-seeking patron-client networks -- often centred in Congress -- battled for votes and control of state levers to distribute patronage. During this period, power was dispersed among central, regional, and local patrons. Using the tools of martial law, Marcos centralized the allocation of patronage in the 1970s. Although he relied heavily on support from international financiers, the military, and less powerful patrons throughout the country, Marcos managed to eliminate or appease many competing patron-client units. He was deposed in 1986 after

⁵⁰Carle Landé, Leaders, Factions, and Parties; The Structure of Philippine Politics (New Haven: Yale University Southeast Asia Studies Program, 1965), p.80, quoted in Timberman, A Changeless Land, p.22.

⁵¹Rush, The Last Tree, p.34.

resources grew scarce and he could no longer sustain his unwieldy patron-client network. Today, power is again dispersed among rival patron-client units -- many with a powerful economic 'family' at the core. These have ties to the president, members of Congress, key corporate leaders, military officers, bureaucrats, and leaders in the outlying provinces. While these three periods have obvious distinctions, all are characterized by one dominant feature: patron-client units battling for access to and control over state patronage.

PATRONS AND TIMBER

From the 1950s to the mid-1980s, extensive ties between senior state officials and timber operators distorted management policies and drove destructive and excessive logging. During the Marcos years, top political and military leaders -- including Defence Secretary Juan Ponce Enrile, and Armed Forces Chief of Staff General Fabian Ver -- were involved in illegal logging and smuggling.⁵² Powerful timber operators -- such as Alfonso Lim and

⁵²In 1985, a Presidential Task Force claimed that three timber companies owned by Enrile -- Dolores Timber, San Jose Corporation, and JJ Tirador Lumber Corporation (Cresta Monte) -- and his shipping company, Cresta Monte Shipping, were involved in log smuggling. Marites Danguilan Vitug, The Politics of Logging: Power From the Forest (Manila: Philippine Center For Investigative Journalism, 1993), p.29. Also see Marites Danguilan Vitug, "Is there a Logger in the House?" in Eric Gamalinda and Sheila Coronel, eds., Saving the Earth: The Philippine Experience, 3rd edition, (Manila: Philippine Center for Investigative Journalism, 1993), p.68; and Criselda Yabes, "Boon or Ban?" in Gamalinda and Coronel, eds., Saving the Earth, p.28. The Philippine Veterans Investment and Development Corporation (Phividec) -- through its subsidiary, the Construction and Development Corporation (Phicondec) -- was also involved in destructive logging and smuggling. See Vitug, The

Herminio Disini -- were key Marcos clients.⁵³ These clientelist ties at the top of the state weakened supervision of state implementors, undermining state capacity to enforce timber regulations and collect forest charges. The state was not able to protect and rehabilitate the forests, and deforestation was rampant.

After the fall of Marcos, patrons and clients scrambled to form new alliances. A remarkable number survived. A University of the Philippines resource specialist lamented: "With the change of government [in 1986], many of us were hopeful that things would change -- only to find out that a new group of politicians close to Malacanang [the presidential palace] has again served as sponsor...showing that the control of natural resources is power and that the game goes on."⁵⁴ Today, numerous Congress members, provincial governors, and local mayors have past or present links

Politics of Logging, p.31; for Phividec's logging activities, see Ibid., pp.30-32.

⁵³Lim's timber empire was impressive. He effectively controlled about 600,000 hectares of logging concessions. Vitug, The Politics of Logging, p.16. Disini -- who married Imelda Marcos's cousin -- controlled almost 200,000 hectares of timber in northern Luzon. James K. Boyce, The Philippines: The Political Economy of Growth and Impoverishment in the Marcos Era (London: The MacMillan Press Ltd., 1993), p.233. Vitug provides extensive details on the links between Marcos, his clients, and timber operators. I will not reiterate her work. See Vitug, The Politics of Logging, especially, pp.16-24, and p.44. In chapter five (pp.85-101), Vitug documents the extensive past and present links -- both clear and tenuous -- between Congress members and the timber industry.

⁵⁴Quoted in James Clad and Marites D. Vitug, "Words, words, everywhere and not a thing is done," FEER, 24 November 1988, p.52.

to timber companies.⁵⁵ The career of Palawan timber magnate Jose 'Pepito' Alvarez illustrates how many timber operators linked to Marcos survived the transition to Aquino. After working for about ten years for a Japanese timber company in Indonesia, Alvarez moved to the heavily forested province of Palawan. Alvarez developed close ties to Teodoro Pena, the Minister of Natural Resources and Marcos's key Palawan client. Pena arranged for Alvarez to obtain two concessions covering 168,000 hectares, 61 percent of Palawan's productive forest. In exchange, Alvarez supported Pena's bid for a seat in the legislature. Alvarez's links to Marcos were reinforced by his father-in-law, a key Marcos client in Mindanao.

According to photos taken by former workers, Alvarez's main company -- Pagdanan -- has logged illegally, clear-cut forest areas, and limited reforestation "to the sides of roads."⁵⁶ But by adroitly switching patrons after Marcos fell, and judiciously distributing patronage, Alvarez has remained largely immune from state sanctions. In the 1987 congressional election Alvarez abandoned Pena and backed Ramon Mitra, who later became a presidential candidate and Speaker of the House. Alvarez financed Mitra's political party and reportedly gave him a ranch house in Palawan. Besides cultivating close ties to Mitra, Alvarez has prudently maintained links to Palawan's other Congressman (David

⁵⁵See Vitug, "Is there a Logger in the House?" pp.62-68. As of 1993, nine Congress members have significant past or present links to the timber industry. Vitug, The Politics of Logging, p.92.

⁵⁶Robin Broad and John Cavanagh, "Marcos's Ghost," Amicus Journal (Fall 1989), p.26.

Ponce de Leon), provincial military officers, business leaders who control the two newspapers and one radio station in Palawan, local government officials, and even Palawan's Catholic bishop.⁵⁷ According to Robin Broad and John Cavanagh, Alvarez is typical of many powerful loggers in the post-Marcos era: they simply "shifted their allegiance and economic backing from Marcos to politicians in Aquino's camp."⁵⁸

As a result of these realignments, loggers still have leverage over political decisions and policies, especially in the outer regions and among state enforcement officers. But at the highest levels their power has diminished. Aquino had no apparent ties to loggers and pushed for better environmental management.⁵⁹ Changes to the political positions and the timber interests of the three main candidates in the 1992 presidential election -- Mitra, Eduardo Cojuangco, and Ramos -- demonstrate the waning influence of loggers

⁵⁷Rush, The Last Tree, p.43; Horacio Severino, "The Challenge Ahead," in Gamalinda and Coronel, eds., Saving the Earth, p.9; Broad and Cavanagh, "Marcos's Ghost," p.20; and Robin Broad with John Cavanagh, Plundering Paradise: The Struggle for the Environment in the Philippines (Berkeley: University of California Press, 1993), pp.39-55. Besides Alvarez, other concession holders in Palawan in 1988 included "the wife of the provincial governor, a former governor, a member of the provincial board and former town mayor, and other members of influential families, including Alvarez's." Rush, The Last Tree, p.43

⁵⁸Broad and Cavanagh, "Marcos's Ghost," p.20.

⁵⁹Former DENR Secretary Fulgencio Factoran stated that: "The political pressure I experienced was not from a higher-up asking me to do something against my will. President Cory never intervened. It was the two houses of Congress." Quoted in Vitug, The Politics of Logging, p.50. Aquino once inquired about the suspension of the timber concession operated by Greenbelt Wood Products (linked to Fidel Ramos) but, according to Factoran, "she did not make me change anything." Ibid., p.51.

at the top of the state. During the 1992 presidential campaign, Mitra, who in the past had been a staunch supporter of logging, publicly condemned destructive and illegal loggers, and -- although he still defended Alvarez -- called for a total logging ban. This sharp reversal of his previous environmental views likely reflected the growing concern among Filipino voters with floods, soil erosion, and environmental degradation. While Mitra has indirect ties to the timber industry, Cojuangco -- a former Marcos client -- has direct links. He is president of International Hardwood and Veneer Corporation (Interwood) and director of Eastern Plywood Company and Santa Clara Plywood Company. In 1992, after DENR found evidence of illegal logging, Cojuangco -- despite controlling a corporate empire -- was unable to prevent the suspension of Interwood's licence.⁶⁰

Ramos has also had direct ties to destructive logging. He held shares in Greenbelt Wood Products, a company chaired by his father until he died in 1986. Greenbelt violated numerous timber regulations, even after March 1991, when its concession licence officially expired. According to one report for the government, Greenbelt has an "image of invincibility...with apparent blessings of...some patrons in Manila. With its vast resources and influence, it was able to put up its own security force..."⁶¹ Before the 1992 presidential election, Ramos severed his direct

⁶⁰Vitug, "Is there a Logger in the House?" pp.60-61. Interwood has also been connected to processing under-sized logs, and inadequate reforestation.

⁶¹Quoted in Ibid., p.61.

ties to the timber industry and divested his shares in Greenbelt. He then made environmental protection a key part of his 1992 presidential platform. Since winning this election, Ramos has responded to some environmental concerns. At the start of his term, under intense media and Congressional pressure, he replaced his political ally Edelmiro Amante as Secretary-designate of DENR after the media publicized Amante's close links to Mindanao timber companies. Ramos then accepted a recommendation by a coalition of environmental groups and appointed Angel C. Alcala as the new DENR Secretary. In his first two years as president, Ramos has supported moves to curb illegal logging and smuggling, increase reforestation, and improve forestry management.

The weakening of ties between loggers and top state leaders does not signal a fundamental change to Filipino patron-client politics. Rather, it reflects the collapse of the timber industry: with fewer valuable logs, there is simply less patronage to sustain powerful timber-based patron-client networks. As Horacio Severino aptly notes, although it would be gratifying to perceive the changing balance of power as a victory for NGOs and environmental groups, "just as likely, the diminished influence of the loggers in our society has simply coincided with the disappearance of much of our country's forests."⁶²

As timber-based patron-client ties to top politicians erode, as potential profits decline, and as attitudes supporting environmental protection strengthen, there has been a marginal

⁶²Severino, "The Challenge Ahead," p.10.

increase in state capacity to manage the forests. As we will see in the next section, since 1986 the state has slashed the number of logging licences, gathered more accurate data and information, and made notable strides in reforestation. But pervasive patron-client links between politicians, military officials, and bureaucratic implementors still distort policies and thwart enforcement. As a result, illegal logging is common, companies evade taxes and timber royalties, numerous reforestation sites have failed, timber processors are inefficient, and selective logging bans -- including one to protect the last primary forests -- are almost meaningless. Even the laudable move to allow communities to manage forest areas is undermined by local patron-client networks that struggle to promote particularistic goals.

FORESTRY POLICIES AND PATRON-CLIENT POLITICS

A. Background

The Philippines has around 7,000 islands and a total land area of 30 million hectares. The state owns all land classified as forests. After independence in 1946, forests covered about three-quarters of the Philippines.⁶³ Partly driven by Northern trade and technology, and partly by government incentives, large logging operations began in the Philippines in the 1950s. By the 1960s, as log purchases from Japan soared, annual deforestation climbed to 300,000 hectares. In 1969, timber output peaked at over 11 million

⁶³Ooi Jin Bee, Depletion of Forest Resources in the Philippines (Singapore: ASEAN Economic Research Unit, Institute of Southeast Asian Studies, 1987), p.14.

cubic metres, and log exports accounted for one-third of total Philippine export earnings. In the early 1970s, timber production held steady at about 10 million cubic metres. As valuable timber stocks grew scarce, and as demand from Japan dropped sharply, log extraction declined in the 1970s, and by the early 1980s annual deforestation had fallen to 150,000 hectares. By 1990, annual deforestation was less than 100,000 hectares due in part to fewer logging concessions, more reforestation, selective logging bans, and most importantly, the depletion of commercial forests.

The government classifies 15.88 million hectares -- or 53 percent of total land area -- as forest lands. But there are actually only 5.9 million hectares and it "is going down as fast as fire, axe and chainsaw allow."⁶⁴ Of this, 3.91 million hectares are dipterocarp forests; about 800,000 hectares of these forests are undisturbed.⁶⁵ According to an ecologist with the Institute of Church and Social Issues, every year another 50,000 hectares of primary forests disappears.⁶⁶ At the beginning of 1992, the government banned logging in all primary forests to slow the rapid loss of old-growth forests. Logging is now only allowed in

⁶⁴Johnson, "Fire in the Mother Lung," p.34.

⁶⁵Philippine Department of Environment and Natural Resources, Forest Management Bureau, Republic of the Philippines, 1992 Philippine Forestry Statistics (Manila: Republic of the Philippines, annual publication, 1993), p.xi.

⁶⁶Summarized in Alan Robles, "An Ecological Crisis," in Gamalinda and Coronel, eds., Saving The Earth, p.15.

"adequately stocked residual forests."⁶⁷

In 1986, the duties of the Ministry of Natural Resources were expanded to include environmental protection and the ministry was renamed the Department of Environment and Natural Resources (DENR). DENR is responsible for regulating, monitoring, and protecting forest land, issuing timber licence agreements (TLAs), enforcing selective logging guidelines, and ensuring adequate reforestation.⁶⁸ The Aquino government also restructured forest management within the Department, curtailing the powers of the Bureau of Forest Development (BFD), the core of many patron-client networks linked to poor enforcement in the past. The BFD was renamed the Forest Management Bureau. It was given "support rather than operational functions," and field officials were integrated into DENR's "line structure."⁶⁹ In addition, the government pushed forestry staff into the field, decentralized some power to lower levels of the Department and regional offices, and put more emphasis on social and community forestry programs.

⁶⁷Philippine Department of Environment and Natural Resources, 1992 Philippine Forestry Statistics, p.xi. Rapid policy changes -- coupled with a plethora of legislative proposals since 1986 -- make it difficult to unravel environmental and timber policies in the Philippines. This problem is aggravated by ambitious government officials and overly zealous reporters and NGO activists who distort statistics. Many articles are inconsistent, ambiguous, vague, and based on rumour and accusation rather than concrete evidence. As a result, there is substantial confusion -- both inside and outside the Philippines -- over current forestry data and policies. Numerous authors note this frustrating problem. For example, see Callister, Illegal Tropical Timber Trade, pp.59-60.

⁶⁸Belcher and Gennino, eds, Southeast Asia Rainforests, p.36.

⁶⁹Korten, "Environmental Loans," p.6.

Aquino appointed Ernesto Maceda DENR Secretary in 1986, despite previous allegations of corruption. According to Marites Danguilan Vitug, "the DENR post was Cory Aquino's 'thank you' gift to Maceda for his big role in her victory."⁷⁰ Maceda's tenure only lasted 9 months, ending after the November 1986 attempted coup. Maceda was replaced by human rights lawyer, Fulgencio Factoran, following interim Secretary Carlos Dominguez. Factoran had a profound impact on the Department and -- until his term ended in June 1992 -- was a key force behind efforts to improve state timber management. After Factoran stepped aside, DENR Undersecretary Ricardo Umali acted briefly as interim Secretary until Ramos appointed Angel Alcala. Alcala has continued in the tradition of Factoran and pressed hard for better enforcement and forestry management. But like Factoran he has faced formidable obstacles, including his own recalcitrant Department.

B. Timber Concessionaires and Legal Logging

As in Indonesia and Sarawak, in theory, Philippine companies are supposed to follow selective logging rules and conduct appropriate enrichment planting and silvicultural treatments. But in practice, loggers -- with protection from political, bureaucratic, and military officials -- have rarely adhered to these rules and many timber concessions have been devastated.⁷¹ In

⁷⁰Vitug, The Politics of Logging, p.40.

⁷¹See Hurst, Rainforest, p.188; "Philippines," (Based on the work of Cesar Nuevo), in Blockhus, Dillenbeck, Sayer and Wegge, eds., Conserving Biological Diversity in Managed Tropical Forests,

the 1950s and 1960s, licences were usually granted for one to ten years. By 1960, 5.5 million hectares of forests were carved into logging concessions; by 1971, loggers controlled 10.6 million hectares, over one-third of the total land area.⁷² To obtain and renew licences, logging companies often placed influential politicians on their boards of directors. Many timber concessions, licences and contracts were directly connected to political patrons. The electoral turbulence of the 1950s and 1960s -- and shifts in the composition and size of patron-client networks -- contributed to an uncertain and unpredictable atmosphere for loggers. Most companies considered their licence tentative, contributing to quick and destructive harvesting techniques.

During martial law, Marcos issued timber licences and 'special logging permits' to reward loyal followers, enrich his family, and appease influential dissidents. Military officers, key political and economic elites, and Muslim dissidents were granted lucrative logging sites. In 1972 alone, Marcos distributed over 12,000 special logging permits.⁷³ Often licence holders did not have the expertise or equipment to log concessions; many used

p.69; Boyce, The Philippines, p.234; and Eufresina L. Broado, "Incentive Policies and Forest Use in the Philippines," in Gillis and Repetto, eds., Public Policies, pp.169-170.

⁷²Vitug, The Politics of Logging, p.14; Belcher and Gennino, eds, Southeast Asia Rainforests, p.35; and Nectoux and Kuroda, Timber, p.62.

⁷³Vitug, The Politics of Logging, p.15. For details, see *Ibid.*, pp.13-24.

subcontractors, especially ethnic Chinese companies.⁷⁴ A typical concession was 40,000 to 60,000 hectares, although key Marcos clients controlled areas larger than 100,000 hectares, the nominal constitutional limit.⁷⁵ These loggers made enormous profits. The Haribon environmental group estimates that from 1972 to 1988, Filipino companies logged 8.57 million hectares, for a total profit of US\$42.85 billion; 3.88 million hectares were primary forests.⁷⁶

Extensive links between top state leaders and timber operators weakened supervision of state enforcement officers and lowered state morale in the Marcos years. Instead of working for the state, many middle and lower-level officials worked to promote their own interests. According to a former Bureau of Forest Development bureaucrat, "because the leadership was corrupt, the rank and file employees were not afraid to be corrupt."⁷⁷ In exchange for money, gifts, and job opportunities, enforcement officers often ignored blatant violations of selective logging rules. Former DENR Secretary Maceda claimed that 90 percent of forestry bureaucrats in the Marcos era were corrupt.⁷⁸ In this setting, the few state officials who tried to uphold the law

⁷⁴Nectoux and Kuroda, Timber, p.68.

⁷⁵Vitug, The Politics of Logging, p.14.

⁷⁶Robles, "An Ecological Crisis," p.18.

⁷⁷Quoted in Vitug, The Politics of Logging, p.28.

⁷⁸Summarized in Hurst, Rainforest, p.164. In the Marcos era, the Bureau of Forest Development had a reputation as the most 'corrupt' government agency. Sajise, et al., State of the Nation Reports. Saving the Present For The Future, p.19.

confronted formidable systemic barriers.

In the 1970s, Marcos extended the time limit for timber concession licences to twenty-five years. But at the same time, he fostered an unpredictable setting by threatening to cancel licences to control his timber clients. The tenuous position of loggers was aggravated by the arbitrary power of Marcos's top client in the forest bureaucracy, Edmundo Cortes, director of the Bureau of Forest Development from 1975 to 1986. As a result, longer concession licences had little practical impact since loggers realized their licence depended on the grace of Marcos and Cortes. Few bothered with long-term management.⁷⁹ According to Vitug, if loggers "were out of favour with Cortes and Malacanang [the presidential palace], their TLA would surely be cancelled. The application of the law was subjective."⁸⁰

Since 1986, DENR has suspended, cancelled, and refused to renew numerous timber licences. At the end of 1992, 61 timber licence agreements and 10 other kinds of licences provided loggers with access to 2.3 million hectares with a total allowable yield of

⁷⁹Boyce, The Philippines, p.226; and Broado, "Incentive policies," p.177.

⁸⁰Vitug, The Politics of Logging, p.36. Vitug argues that Cortes ruled the Bureau of Forest Development like a 'godfather.' "The powers of Cortes were enormous. He could suspend licences of timber concessions. He recommended export quotas of logging companies. At his disposal was 50 percent of the Ministry's budget....He could assign his personnel to premier positions in Manila and take them out of the hinterlands. He dangled foreign trips and honoraria." Ibid., p.34.

1.94 million cubic metres.⁸¹ As a result of these changes, official log production in 1992 was 1.4 million cubic metres, 26 percent lower than 1991; total government timber revenue in 1992 was 467 million pesos, a 42 percent drop from 1991.⁸² Since 1987 DENR has not granted any new logging licences,⁸³ and there are apparently no plans to issue licences in the future. Instead, DENR is promoting community-based industrial forest plantations "to maintain wood supply and to provide alternative livelihood for wood dependent communities."⁸⁴ As of December 1993, DENR had awarded 176 industrial forest management agreements.⁸⁵

As a result of DENR's moves to reduce legal logging, timber operators face the constant possibility that the government will revoke or cancel their licence with no concrete explanation. As

⁸¹Philippine Department of Environment and Natural Resources, 1992 Philippine Forestry Statistics, p.xi. My sources on the number of timber licences and total allowable cut are somewhat inconsistent. According to Vitug, between 1987 and June 1992, DENR reduced the number of timber licence agreements from 143 to 32 and the annual allowable cut from 6.03 million cubic metres to just over 1 million cubic metres. Vitug, The Politics of Logging, pp.59-60. Another study claims that in 1993, there were 33 timber concessionaires with logging rights to 1.6 million hectares. Belcher and Gennino, eds, Southeast Asia Rainforests, p.37.

⁸²Philippine Department of Environment and Natural Resources, 1992 Philippine Forestry Statistics, p.xii.

⁸³"RP losing race to save forests," The Manila Times, 31 January 1994, p.A6.

⁸⁴Philippine Department of Environment and Natural Resources, State of the Philippine Environment and Natural Resources, Executive Summary Press Release, received by the author, February 1994, p.9.

⁸⁵Priscila R. Arias, "P4.7 B for forests," Manila Bulletin, 13 January 1994, p.7.

one study notes: "The national government...has the tendency to cancel leases on areas peremptorily, sometimes without due process. Many TLA holders continually fear the cancellation of their leases as political circumstances change, with the consequent loss of their fixed investments in processing plants, infrastructure, and forest development in their areas."⁸⁶ As in the past, this induces timber operators to extract logs as fast as possible. In this context, loggers routinely ignore silvicultural treatments, enrichment planting, and selective logging rules.⁸⁷ While poor management of legal concessions is certainly a problem, as the government cuts the number of licences, illegal logging is an even greater factor driving contemporary deforestation.

C. Illegal Logging

Illegal loggers -- in cahoots with politicians, military leaders, police officers, and bureaucrats -- are chopping down the few remaining primary forests and destroying the National Parks and wildlife sanctuaries.⁸⁸ Although illegal logging is often blamed

⁸⁶Garritty, Kummer, and Guiang, "The Philippines," p.608.

⁸⁷Cancelling concession licences does not automatically improve timber management. It is also crucial for the state to protect abandoned concessions. A recent study found that many cancelled concessions in the Philippines were destroyed by small-scale illegal loggers and slash-and-burn farmers. Rudy A. Fernandez, "Total log ban cannot stop forest denudation," The Philippine Star, 10 January 1994, p.1, p.5.

⁸⁸Interview, College of Forestry, University of the Philippines at Los Banos, 1 February 1994; Interview, Program Director, DENR, Quezon City, 3 February 1994; and Belcher and Gennino, eds, Southeast Asia Rainforests, p.36. In some cases -- such as in Quezon -- the military simply extracts logs. See Rita Villadiego,

on destitute villagers, in many cases influential officials and timber company executives -- who skim most of the profits on lucrative illegal log sales -- protect and encourage these people.⁸⁹ In Samar, even though logging was banned in 1989, timber companies extract logs "through a web of allies ranging from politicians to local officials and even communist rebels."⁹⁰ In 1989, a World Bank report estimated that illegal logging may be roughly equivalent to legal logging.⁹¹ In the same year, a Senate committee claimed that destructive and illegal logging cost the Philippines US\$5 million every day.⁹² In 1991, the Economist Intelligence Unit estimated that the Filipino illegal timber trade was worth US\$800 million a year.⁹³ More recently, Congressman Renato Yap claimed that illegal logs account for about half of annual Philippine timber consumption -- estimated at 2.5 million

"Last Days of the Sierra Madre," in Gamalinda and Coronel, eds., Saving the Earth, pp.41-47.

⁸⁹Interview, Program Director, DENR, Quezon City, 3 February 1994.

⁹⁰Yabes, "Boon or Ban?" p.28. For more examples of government and military involvement in illegal logging, see Callister, Illegal Tropical Timber Trade, pp.62-64.

⁹¹Summarized in Boyce, The Philippines, p.234. Also see Rhona Mahony, "Debt-for-Nature Swaps: Who Really Benefits?" Ecologist 22 (May/June 1992), p.101.

⁹²Summarized in Callister, Illegal Tropical Timber Trade, p.58.

⁹³Summarized in Dudley with Stolton, The East Asian Timber Trade, p.29.

cubic metres.⁹⁴

Military officers have protected and profited from illegal logging.⁹⁵ As well, in some cases, members of the Civilian Armed Forces Geographical Unit -- a paramilitary force of about 15,000 civilians under Army supervision -- "are used by politicians and businessmen to escort their illegally cut logs."⁹⁶ Federal, provincial, and local politicians and judges also shield illegal loggers. In 1990, the government established a Department of Justice Task Force on Illegal Logging to prosecute illegal loggers and corrupt DENR officers. The chairman of the task force, Alvin Go, "has received telephone calls from senators, congressmen and judges indirectly asking him not to proceed with some cases."⁹⁷ In Basilan, Governor Gerry Salupudin is one of the most powerful loggers. According to one inside source, "that's why illegal logging activities in the area are very hard to stop."⁹⁸ In Isabela, former Governor Faustino Dy -- whose family has close ties

⁹⁴"RP losing race to save forests," The Manila Times, 31 January 1994, p.A6. DENR Secretary Alcala disputes this figure. He claims that the volume of illegal logs is only 10 percent of total legal production. Asian Timber, April 1993, p.8.

⁹⁵See Vitug, The Politics of Logging, chapter six, pp.103-123.

⁹⁶Ibid., p.121. As with any complex organization, the military has both positive and negative effects on timber management. For example, while some wings of the military facilitate illegal logging, others patrol the forests and the coastline to prevent illegal logging. Military reserves and trainees are also replanting degraded forest areas. Aris R. Ilagan, "AFP's environment role," Manila Bulletin, 20 December 1993, p.1, p.6.

⁹⁷Vitug, The Politics of Logging, p.118.

⁹⁸Quoted in "PNP to go after loggers in Basilan," The Manila Times, 31 January 1994.

to logging companies -- candidly admits that "there are violations which could not be avoided because regulations of the Department of Environment and Natural Resources are difficult to comply with. Sawmill operators may lose money if they follow DENR rules to the letter."⁹⁹

Since 1986 the government has tried to curb illegal logging. DENR has cancelled concessions, confiscated illegal logs, strengthened laws, and prosecuted cases. In 1987, to increase state capacity to monitor illegal logging, the government began rewarding informers 30 percent of the value of seized logs.¹⁰⁰ In early 1994, the Presidential Anti-Crime Commission and DENR established a special task force to tackle "big-time" illegal loggers.¹⁰¹ Before 1987, no one had been convicted of illegal logging; yet by the middle of 1991, 28 people had been convicted, including city councillors, and the wife of a senior military officer.¹⁰²

Despite these moderate results, pervasive links between local DENR officers and timber operators continue to undermine the state's ability to halt illegal logging. From 1987 to 1992, the

⁹⁹Quoted in Red Batario, "The Pillage of Isabela," in Gamalinda and Coronel, eds., Saving the Earth, pp.37-38. For a description of links between loggers and local politicians in Isabela, see Ibid., pp.37-40.

¹⁰⁰Debora MacKenzie, "Uphill battle to save Filipino trees," New Scientist, 30 June 1988, p.43.

¹⁰¹Rey Arquiza, "PACC forms task force to go after illegal loggers," The Philippine Star, 2 January 1994, p.1, p.5.

¹⁰²For more details, see Callister, Illegal Tropical Timber Trade, pp.66-67.

government investigated 443 cases of improprieties at DENR -- 50 officials were disciplined; six were fired.¹⁰³ Local enforcement officers routinely ignore and even assist illegal logging.¹⁰⁴ In Cagayan, the former regional director of DENR, Rogelio Bagayan, concedes that: "We have problems of collusion [between government officials and loggers]; we have to transfer staff or force them out."¹⁰⁵ In 1990, DENR punished or relocated local forestry officers in Isabela after an undercover team found strong evidence of collaboration between illegal loggers and provincial DENR officials. After this crackdown, illegal logging was temporarily reduced -- but by early 1991, "illegal logging activities [had] resumed with a vengeance."¹⁰⁶ According to Senator Heherson Alvarez, "it is very difficult to enforce [laws in Isabela] because everybody is involved."¹⁰⁷ Local DENR officials -- linked to timber-based patron-client networks -- have also undercut central DENR investigations. For example, in 1992, after a successful government raid of Super Mahogany Plywood Corporation, local DENR

¹⁰³Vitug, The Politics of Logging, pp.48-49. According to one report, in 1993 alone, there were around 1,800 corruption cases filed against DENR officials. "RP losing race to save forests," The Manila Times, 31 January 1994, p.A6.

¹⁰⁴"PNP to go after loggers in Basilan," The Manila Times, 31 January 1994.

¹⁰⁵Quoted in Robles, "Logging and Political Power," p.22.

¹⁰⁶Batario, "The Pillage of Isabela," p.35. Batario -- a member of this undercover team -- claims that loggers harassed and tried to bribe the team. After menacing threats, the team leader -- Francis Altarejos -- sought refuge in the United States in 1990. Ibid.

¹⁰⁷Ibid., p.36.

allies apparently tampered with crucial evidence.¹⁰⁸ Of course, not all DENR officials are 'corrupt' or members of patron-client networks. Some are competent, idealistic and work hard for the state (which presumably supports better timber management). These officials, however, face grave dangers from other state officials as well as powerful economic elites. In 1993 alone, 10 DENR officials and employees were apparently killed by illegal loggers.¹⁰⁹

To sever links between local DENR officials and timber operators, DENR Secretary Alcala has suspended and reshuffled personnel. This has created a backlash from recalcitrant departmental staff. In late 1993, the Ombudsman began investigating graft and corruption charges against Alcala and Undersecretary Ben Malayang III. These charges -- levelled by a former DENR assistant Secretary who Alcala fired for anomalies in the campaign to halt illegal logging -- are apparently part of a campaign to topple Alcala.¹¹⁰ In February 1994, the DENR Employees Union called for Alcala's resignation, arguing he had destroyed morale and abused his authority.¹¹¹ As a result of this internal

¹⁰⁸Vitug, The Politics of Logging, pp.117-118.

¹⁰⁹"RP losing race to save forests," The Manila Times, 31 January 1994, p.A6.

¹¹⁰According to these charges, Alcala appointed his daughter, a son-in-law, and a brother-in-law to DENR positions. Bobby Timonera, "Alcala, DENR exec face graft charges," The Philippine Inquirer, 23 October 1993, p.1, p.11.

¹¹¹"DENR men seek ouster of Alcala," The Manila Bulletin, 5 February 1994, p.12.

resistance, Alcala has made only incremental progress in weakening links between timber operators and DENR staff.

Besides ties between forestry officials and timber operators, remote concessions and a lack of institutional resources further hampers DENR's ability to curb illegal logging. Monitoring illegal logging is exceedingly difficult. The Philippines has only 4000 forest guards.¹¹² Palawan -- which contains one-third of the remaining primary forests -- has just 135 guards. Enforcement problems have increased even more since the closure of U.S. military bases.¹¹³ The navy is unable to patrol the jagged coastline. Even when surveillance units pinpoint smugglers, by the time the navy reaches the site it is often too late.¹¹⁴ In Cagayan, DENR has "neither the helicopters nor boats to conduct patrols with and soldiers who are supposed to enforce the law often connive with loggers."¹¹⁵ In Samar, DENR has "no guns, no radios, no boats, and only 250 guards to roam the jungles, where they are usually terrorized by armed men or rebels."¹¹⁶ In Bukidnon, DENR officials confessed in 1989: "We are unable to control the illegal

¹¹²Vitug, The Politics of Logging, p.67.

¹¹³The 10,000 hectare primary forest at the former American naval base in Subic Bay, Luzon, has been one of the best protected areas in the Philippines. But since the withdrawal of U.S. forces, it is unclear whether the Philippine state can keep illegal loggers out of this forest. "Manila fears it cannot protect rich Subic forest," New Straits Times, 26 April 1992, p.14.

¹¹⁴Interview, Consultant to DENR and World Bank, Quezon City, 3 February 1994.

¹¹⁵Quoted in Robles, "Logging and Political Power," p.24.

¹¹⁶Yabes, "Boon or Ban?" p.29.

loggers."¹¹⁷

DENR is also unable to trace the volume of logs extracted and compare this with allowable cuts. To monitor harvests, DENR issues a Certificate of Timber Origin. There are two serious problems with these Certificates. One, companies bribe officials to ignore or alter certificates. Two, companies duplicate certificates which are then stamped by local DENR officials. Without a computerized system, DENR cannot trace these documents.¹¹⁸ An additional problem is DENR's reliance on timber companies to provide transportation, and accommodation, and in some cases, protection from surprise attacks by the communist New People's Army (NPA).¹¹⁹ These close ties to timber companies subvert the independence and objectivity of DENR inspectors.

D. Smuggling

Under Marcos, domestic companies -- often with the participation or knowledge of customs officials and foreign firms -- smuggled huge quantities of logs to the North. Former DENR Secretary Maceda "estimated that between 1974 and 1980, US\$960

¹¹⁷Quoted in Joy Hofer, "Up in Arms in Bukidnon," in Gamalinda and Coronel, eds., Saving the Earth, p.34.

¹¹⁸Interview, Consultant to DENR and World Bank, Quezon City, 3 February 1994. In Isabela, to increase profits and evade forest royalties, "loggers use fake...invoices." Batario, "The Pillage of Isabela," p.37.

¹¹⁹This is a serious problem in Isabela. Batario, "The Pillage of Isabela," pp.36-37. In most cases, the NPA does not directly participate in illegal logging, but some units do protect or tax illegal operations. See Vitug, The Politics of Logging, p.134.

million worth of timber was smuggled out of the country by friends and associates of President Marcos."¹²⁰ Many illegal logs landed in Japan. Official Japanese customs records show that in 1981 Japan imported 1.4 million cubic metres of Filipino logs; but for the same period, according to Philippine records, only 365,441 million cubic metres were shipped to Japan.¹²¹ In 1984, Japanese companies imported 938,000 cubic metres of Philippine logs, over 400,000 cubic metres higher than the official export quota. In 1985, 257,000 cubic metres of undocumented Filipino logs were imported into Japan. In 1986, under the new government, the discrepancy between Japanese import and Filipino export figures dropped to 85,000 cubic metres. But even in 1987, after the total ban on log exports, "35,000 cubic metres of 'unexplained' logs left the Philippines for export to Japan."¹²² Although it is difficult to prove, Japanese companies likely colluded with Filipino loggers to smuggle logs and falsify export documents.¹²³ Through these practices timber operators exceeded their allowable cut, evaded export and corporate taxes, and stashed foreign exchange earnings

¹²⁰Summarized in Boyce, The Philippines, p.234.

¹²¹Norman Myers, The Primary Source: Tropical Forests & Our Future [Updated for the 1990s] (New York: W.W. Norton & Company, 1992), p.109.

¹²²Nectoux and Kuroda, Timber, p.72.

¹²³Telephone Interview, Centre For Investigative Journalism, Manila, 31 January 1994; and Interview, College of Forestry, University of the Philippines at Los Banos, 1 February 1994.

overseas. Today, most illegal logs are consumed in the country.¹²⁴ Although some timber is smuggled overseas, especially to Taiwan, there do not appear to be substantial shipments. It is unlikely that Japanese trading companies are still involved in smuggling syndicates. Potential profits are now too low to risk sabotaging newly crafted corporate images.¹²⁵

E. Tax and Royalty Evasion

Marcos provided timber licences to key clients for a paltry fee of one peso. For a long time, the main source of government logging revenue from forest exploitation was based on remarkably low royalties based on the volume extracted. In 1983, this was only 20 pesos per cubic metre.¹²⁶ Between 1979 and 1982, the government only collected US\$170 million in export taxes and timber royalties, a mere 11.4 percent of potential timber rents.¹²⁷ The excess profits flowed to a small elite, often linked to Marcos. In the late 1980s, Haribon president Junie Kalaw vividly explained:

In the past 15 years we have had only 470 logging concessionaires...The average profit on logging is 100,000 pesos per hectare after you've paid all expenses. When you total this, it would amount to about US\$42 billion, more than our foreign debt, that came from the forest and this money went to 470 people. The process created poverty for 17 million people around the forest

¹²⁴Interview, Program Director, DENR, Quezon City, 3 February 1994.

¹²⁵Telephone Interviews, Centre For Investigative Journalism, Manila, 31 January 1994.

¹²⁶Nectoux and Kuroda, Timber, pp.68-69.

¹²⁷Broado, "Incentive Policies, p.184.

areas.¹²⁸

Despite negligible forest charges, during the heyday of log exports, Filipino companies used elaborate schemes to conceal over-cutting and evade royalties and taxes. With the help of forestry and customs officials, companies forged export documents, preparing one for the foreign port (often in Japan) which stated the true volume of timber, and one for Filipino authorities which underdeclared the volume (often the allowable cut). The foreign company paid a front company in Hong Kong the full value of the timber. The Hong Kong company then paid the Filipino company the value of the underdeclared shipment. The difference was generally diverted to a foreign bank or used to finance overseas operations.¹²⁹

A 1989 World Bank report estimated that the Philippine government -- through royalties and taxes -- collected only 9 to 14 percent of potential timber rent in the late 1980s.¹³⁰ In 1991, forest fees were increased substantially and are now 25 percent of market price (this includes an environmental fee of 500 pesos per cubic metre of logs extracted, first imposed in 1990).¹³¹ But without better collection these higher charges will make little

¹²⁸Quoted in Broad with Cavanagh, Plundering Paradise, p.46.

¹²⁹Nectoux and Kuroda, Timber, p.72.

¹³⁰Summarized in Rigoberto D. Tiglao, "Forest Fires," FEER, 23 March 1989, p.13.

¹³¹Philippine Department of Environment and Natural Resources, State of the Philippine Environment and Natural Resources, Executive Summary Press Release, p.6.

difference. Since 1986, tax evasion has continued to be an acute problem. According to Antonio Carpio, a key anti-corruption activist in the Ramos government, tax evaders are disabling economic development and driving the deficit. One company alone -- Fortune Tobacco under the control of beer and tobacco billionaire Lucio Tan -- avoided paying 7 billion pesos in taxes from 1986 to 1993.¹³²

F. Log Export Restrictions, Logging Bans, and Processing Policies

Unlike in Indonesia, where strong political will and business cooperation created a stringent log export ban, in the Philippines, strong societal resistance, weak state capacity, and diluted and inconsistent direction from top state leaders have distorted and delayed policies to restrict log exports, ban logging, and promote domestic processing. In 1973, the Marcos government announced a log export ban to be phased in over three years. This was never enforced and in 1975 Marcos proclaimed a selective log export ban. This selective ban enabled Marcos to award timber clients with export quotas and deny smaller and recalcitrant companies log export profits. It also fostered widespread illegal logging and smuggling as companies skirted these new regulations.¹³³

In 1986, log exports were finally banned. In 1987, the government announced it would not issue any new timber licences.

¹³²Rigoberto Tiglao, "Crusader or Crook?" FEER, 12 August 1993, p.15.

¹³³Hurst, Rainforest, p.175; and Vitug, The Politics of Logging, p.35.

In 1989, sawn timber exports were banned; in the same year, logging was banned in provinces with less than 40 percent tree cover, in theory, stopping logging in 65 of 73 provinces. But as one report bluntly stated: "None of these bans have been enforced."¹³⁴ In 1992, the government banned logging in all remaining primary forests. But like so many government initiatives, the state has been unable to enforce this law. Since 1986, there have also been numerous unsuccessful Congressional attempts to pass a total ban on logging. Yet even if a total ban is eventually passed -- if previous selective bans are any indication -- this will have little impact on the rate of destructive logging.

The Marcos administration provided incentives to process logs. Although processed wood production increased, these policies protected small, inefficient plywood, veneer, and saw mills.¹³⁵ The value of processed wood exports (mainly sawn timber and plywood) reached \$317 million in 1979. However, by 1982 exports had dropped and the number of plants had decreased -- sawmills from 325 to 190, plywood mills from 209 to 35, and veneer mills from 23 to 11.¹³⁶ At the end of the Marcos era, processed wood exports were still quite low. In 1986, the Philippines exported 495,000 cubic metres of sawn timber, 256,000 cubic metres of plywood, and

¹³⁴Belcher and Gennino, eds, Southeast Asia Rainforests, p.37.

¹³⁵Plywood and veneer mills were particularly inefficient. Broado, "Incentive policies," p.195.

¹³⁶Repetto, The Forest For the Trees?, p.64.

50,000 cubic metres of veneer.¹³⁷ Today, the Philippines does not have a major wood processing industry. In 1992, total sawn timber production was 647,000 cubic metres, an 11 percent decrease from 1991. Of this, companies exported around 56,000 cubic meters, worth US\$14.5 million. In the same year, 42 plywood mills produced 331,000 cubic metres and 13 veneer plants manufactured 79,700 cubic metres.¹³⁸

G. Local Power and Forest Management

In 1992, local governments were allocated more powers, including powers to manage forests. Since forest degradation directly affects villagers, decentralized control could potentially improve management. The author of the new Local Government Code, Aquilino Pimentel, argues that "resistance from local environmental groups will make local officials think twice. This will affect their votes...It is easier to monitor corruption on a local level. In the national office, the official hides in the bowels of the bureaucracy."¹³⁹ But Pimentel may be overly optimistic. Already there are signs that local leaders are using their new powers to distribute patronage. Vitug claims that "among some NGOs, especially those that work with community-managed forests, there is a downcast feeling. They are apprehensive that some politicians

¹³⁷FAO data, in Nectoux and Kuroda, Timber, p.115.

¹³⁸Philippine Department of Environment and Natural Resources, 1992 Philippine Forestry Statistics, p.xii.

¹³⁹Vitug, The Politics of Logging, p.189.

will recklessly issue stewardship contracts and permits to cut trees to favoured supporters. The field is wide open to abuse."¹⁴⁰ Community involvement is clearly vital for effective management. But it is equally apparent that effective checks must be placed on self-interested local patrons and clients.

H. Conservation, Reforestation, and Timber Plantations

Until 1986, conservation and reforestation policies were largely ineffective. A 1988 study showed that the Bureau of Forest Development -- which claimed that it had reforested 272,000 hectares -- only *successfully* replanted 70,000 hectares.¹⁴¹ In 1986, the Philippines began a National Forestation Program (NFP) to replant 1.4 million hectares by the end of the year 2000. The goal is to reforest an annual average of about 100,000 hectares. Initial progress was slow: in 1986, 33,000 hectares were reforested; in 1987, 40,000 hectares; in 1988, 64,000 hectares. In September 1988, DENR began implementing the ADB-OECF First Forestry Sector Program Loan and reforestation accelerated.¹⁴² According to DENR, 190,000 hectares were reforested in 1990, dropping to around

¹⁴⁰Ibid.

¹⁴¹Philippine German Forest Resources Inventory Project, Survey of Government Reforestation Projects (Quezon City: Forest Management Bureau, Department of Environment and Natural Resources, 1988), summarized in Korten, "Environmental Loans," pp.8-9.

¹⁴²Tolentino, Dionisio S. Jr., Philippine National Forest Program Steering Committee Chairman, Presented, "The National Forestation Program: A review of Lessons and Experiences and Formulation of Action Plans," PENRO/CENRO Convention, Quezon City, November 26 1992, (revised to include data as of December 1992), p.1.

93,000 hectares in 1991, and about 40,000 hectares in 1992. As of 1992, in total just over 1,350,000 hectares had been replanted. The government reforested almost 950,000 hectares, timber concessionaires accounted for just over 310,000 hectares, and private sector organizations planted the rest.¹⁴³

Since the late 1980s, DENR has promoted forestry management at the local level -- to encourage communities and NGOs to participate as managers as well as to monitor and enforce rules. There have been, however, serious difficulties. The government has had problems persuading local people -- especially marginal forest dwellers -- to participate since 'results' are often far in the future. As well, leases have been too short and there has been little long-term money to maintain and protect reforested areas. Even more troublesome, reforestation has been undercut by patron-clientelism. While discussing DENR's reforestation efforts during his term, former DENR Secretary Factoran admitted that: "We had to make a political decision. We chose to distribute reforestation funds to congressional districts to make congressmen cooperate."¹⁴⁴ As well, NGOs and 'community groups' have formed spontaneously to take advantage of the funding; there has been wide evidence of abuse.¹⁴⁵ DENR officials and local politicians who syphon funds

¹⁴³Philippine Department of Environment and Natural Resources, 1992 Philippine Forestry Statistics, Table 1.07, p.26.

¹⁴⁴Quoted in Vitug, The Politics of Logging, p.61.

¹⁴⁵Interviews, Department of Forest Resources, University of the Philippines at Los Banos, 2 February 1994; Program Director, DENR, Quezon City, 3 February 1994; and DENR National Forestation Development Office, Quezon City, 3 February 1994.

have also undermined reforestation. DENR officials have been linked to 'ghost' reforestation sites, accepting bribes and gifts from contractors, and demanding a percentage of profits from reforestation contractors.¹⁴⁶ During Factoran's term as DENR Secretary (1986-1992), "about 15 percent of the funds spent [on reforestation] may have gone to the pockets of some DENR officials, politicians and parties contracted to reforest."¹⁴⁷

DENR is now trying to improve reforestation. The most important initiative is the Second Forestry Sector Program (1993-1995) which attempts to build on the lessons and successes of the First Forestry Sector Program (1988-1992).¹⁴⁸ The Second Forestry Sector Program is funded by an ADB US\$100 million project loan and US\$29 million from the Philippine government. Since this is a project loan, the ADB approves all sub-projects.¹⁴⁹ By 1995, this program aims to develop 93,000 hectares of community forests, 55,000 hectares of integrated reforestation sites, and 22,000 hectares of critical watershed restoration. Under this program, DENR only grants reforestation contracts to local residents. These

¹⁴⁶Priscila R. Arias, "DENR officials suspended," Manila Bulletin, 21 January 1994, p.1, p.8.

¹⁴⁷Vitug, The Politics of Logging, pp.60-61.

¹⁴⁸For details on the new policy guidelines, see Tolentino, "The National Forestation Program, pp.7-12.

¹⁴⁹Rosario N. Banzon, "Loan II For The Forestry Sector," NFP Bulletin: The Official Newsletter of the National Program Coordinating Office 3, no. 2 (November 1992), p.7. The ADB's other major reforestation initiative -- the First Forestry Sector Program Loan -- was policy based, dispersing funds when the government met certain policy conditions. Interview, Senior officer, Asian Development Bank, Manila, 4 February 1994.

are long-term agreements designed to encourage villagers to plant various indigenous species. To discourage fraudulent NGOs from taking advantage of reforestation contracts, NGOs are compensated for services to local contractors. The fund is also designed to protect 800,000 hectares of primary forests.¹⁵⁰

THE PHILIPPINES AND JAPAN'S SHADOW ECOLOGY

The North has expedited large-scale logging in the Philippines since the Spanish colonial period. During the 17th and 18th centuries, Cebu was logged extensively to build Spanish galleons. During the American colonial period log extraction increased, driven in part by American technology, advice, financing and market demand. After WWII, Northern investment, technology, and trade further facilitated and accelerated destructive logging.¹⁵¹ Japanese log purchases were a particularly virulent force, although

¹⁵⁰Besides improving community reforestation and protection for primary forests, DENR is also working on a new forestry code, better NGO participation, incentives for private forest managers, implementing the Master Plan For Forestry Development, improving watershed management, increasing interagency coordination, and enhancing information flows and forestry education. See Ito N. Banzon, "What Loan II holds in store," NFP Bulletin: The Official Newsletter of the National Program Coordinating Office 3, no. 2 (November 1992), p.11; and Philippine Department of Environment and Natural Resources, National Forestation Office, A Primer On The Community-Based Forest Management Project (Manila: DENR, undated). (Somewhat confusingly, the Community-Based Forest Management Project is a second name for the Forestry Sector Program). For details on the Master Plan For Forestry Development, see Philippine Department of Environment and Natural Resources, Asian Development Bank and Finnish International Development Agency, Caring for the Forest to Safeguard the Future: Master Plan For Forestry Development (Pasay City: RIVELISA Publishing House, August 1992).

¹⁵¹Broado, "Incentive policies," p.174.

Japanese money and technology were also important.

A. Japanese Investment and Technology

Japanese investment surged during martial law. In December 1973, Japan and the Philippines signed the Treaty of Amity, Commerce and Navigation. From almost no investment prior to 1972, by 1978 Japan accounted for 21 percent of all Philippine investments approved by the Central Bank.¹⁵² After the rapid appreciation of the yen following the Plaza Agreement in 1985, Japanese investment soared worldwide. In the Philippines, from 1985 to 1990 Japanese investment increased 891 percent, from US\$25.9 million to US\$256.7 million.¹⁵³ Despite these substantial increases, in the early 1990s, the Philippines still accounted for less than 1 percent of total Japanese investment.¹⁵⁴ Japanese investors are wary of political instability, unreliable power supplies, inadequate infrastructure, and rampant crime. In 1991, Japanese companies invested US\$203 million in the Philippines, compared to US\$1.19 billion in Indonesia, US\$925 million in Hong

¹⁵²Wurfel, Filipino Politics, p.200; also see Edberto M. Villegas, Japanese Economic Presence in Southeast Asia (Manila: IBON Philippines, Databank and Research Center, 1993), p.59. For a critical study of Japan's economic impact in the Philippines, see Renato Constantino, The Second Invasion: Japan in the Philippines (Quezon City: Karrel, Inc., 1989). For a critique of Japan's corporate environmental practices in the Philippines, see Masaki Yokoyama, "Not in Our Backyard: Exporting Pollution to the Philippines," AMPO Japan-Asia Quarterly Review 23, no. 3 (1992), pp.24-27.

¹⁵³Villegas, Japanese Economic Presence, pp.61-62.

¹⁵⁴Reginald Chua, "Philippine uncertainties keep Tokyo investors on the sidelines," Straits Times, 18 October 1992, p.5.

Kong, US\$880 million in Malaysia, and US\$807 million in Thailand.¹⁵⁵

Direct Japanese investment was less important in triggering the Filipino logging boom in the 1960s than the Indonesian boom in the 1970s. In the case of the Philippines, American companies -- such as Weyerhaeuser and Georgia-Pacific -- provided much of the advice and equipment necessary for large-scale logging during the 1950s.¹⁵⁶ Nevertheless, Japanese companies were still a key force driving extraction. To guarantee log supplies -- yet minimize risks and maintain a low profile -- many Japanese companies provided credit in exchange for logs or held minority shares in local Philippine companies.¹⁵⁷ These arrangements accelerated destructive logging. According to Suzuki,

In cases where the Philippine side could not supply enough capital to make up 60 percent, the Japanese side would provide the difference through the back-door... These back-door funds often accounting for as much as 30 percent of the total, could not be insured. As a result the Japanese side endeavoured to recover the uninsured amount as quickly as possible, contributing to the

¹⁵⁵Meriam O. Dacara, "Hiked Japanese aid to Manila seen," The Times Journal, 17 December 1993, p.1.

¹⁵⁶R. Ludwig, "Cable Crane Yarding, An Economical and Ecologically Suitable System For Commercial Timber Harvesting In Logged-Over Rainforests of the Philippines," Philippine-German Integrated Rainforest Management Project, PN 88.2047.4-01.100, Technical Report no. 2, 1992, p.1; Eduardo Tadem. "Conflict over Land-based Natural Resources in the ASEAN Countries," in Lim Teck Ghee and Mark J. Valencia, eds., Conflict over Natural Resources in South-East Asia and the Pacific (Singapore: United Nations University Press, 1990), p.15; and Gillis, "The Logging Industry In Tropical Asia," p.179.

¹⁵⁷Nectoux and Kuroda, Timber, p.62, p.79, p.86. Also see chapters three and four.

extremely rapid exploitation of concession areas.¹⁵⁸

Through minority shares, Japanese investors had significant influence over the sale and price of logs. As Nectoux and Kuroda note, in many cases, "Japanese control of logging interests [was] obtained not through corporate ownership, but by financing an operation, supplying equipment, purchasing logs and controlling export operations."¹⁵⁹ As with almost all timber companies in the Philippines prior to 1986, companies with Japanese shareholders logged areas illegally, forged export documents, ignored silvicultural and reforestation duties, evaded royalties and taxes, and were protected by powerful political elites.¹⁶⁰ Today, major Japanese trading companies have little interest in the sparse, inaccessible stands of commercial timber. There are some small Japanese investors with minority shares in lumber processing, rattan furniture, and chopstick mills.¹⁶¹ But unlike in the past -- when Japanese trading companies facilitated rapid, large-scale, and often destructive logging in primary forests -- these investors do not have a major impact on the overall structure or sustainable management of the timber industry.

¹⁵⁸M. Suzuki, "Notes for Tropical Rainforest Log Export System Report," Tokyo, 1986, unpublished, quoted in Nectoux and Kuroda, Timber, p.68.

¹⁵⁹Nectoux and Kuroda, Timber, p.86.

¹⁶⁰For example, see the history of Cellophil (1972-1986), a company which was part owned by Mitsubishi Rayon (6%), Daicel (3%) and Marcos's client Herminio Disini. Ibid., pp.84-85.

¹⁶¹Ibid., p.86.

B. Japanese Trade

Japan's greatest impact on Filipino timber management has been massive purchases of logs far below replacement or sustainable management costs. In the 1950s and 1960s, the Philippines was the primary source of Japanese tropical log imports. Over this period -- as Japan used more and more dipterocarp logs to make cheap plywood and *kon pane* -- wasteful Japanese consumption propelled destructive, rapid harvests.¹⁶² In 1950, the Philippines accounted for 93.3 percent of Japanese timber imports from Southeast Asia, although the total volume was only 119,000 cubic metres. In 1961, Japan imported 3.8 million cubic metres of Philippine timber, accounting for 68.7 percent of all Southeast Asian timber imports. In 1965, Japan imported 5.62 million cubic metres of Philippine timber. By 1969, Japanese timber imports from the Philippines had soared to 8.32 million cubic metres, although this now only comprised 46.7 percent of total timber imported from Southeast Asia. In that year, Filipino timber exports peaked at more than 11 million cubic metres.

In the early 1970s, as accessible, high-quality Filipino logs became increasingly scarce, Japanese companies shifted to Sabah and Indonesia. Many Filipino loggers -- in some cases financed by Japanese companies -- also moved to Indonesia.¹⁶³ In 1971,

¹⁶²Starting in 1966, Philippine mangroves -- especially from Mindanao and Palawan -- were also chipped and exported to Japan. Ibid., p.80.

¹⁶³Interview, Professor, University of the Philippines at Los Banos, 1 February 1994. From 1970 to 1990, 17 Filipino logging companies invested US\$279.5 million in Indonesia. For a

Indonesia surpassed the Philippines as Japan's key source of tropical timber. By 1973, Indonesia and Sabah supplied almost 70 percent of Japanese timber imports from Southeast Asia. In that year, Japan imported 6.24 million cubic metres of Philippine timber. In 1976, Japan only imported 1.95 million cubic metres of Philippine timber, a mere 8.7 percent of total Southeast Asian imports. Over the next ten years, Japanese companies -- including Nissho Iwai, Sumitomo, Marubeni, Mitsui, Mitsubishi, and Itochu -- continued to purchase Philippine timber, although far less than during the logging boom in the 1960s.¹⁶⁴ In 1983, Japan only imported around 900,000 cubic metres of Philippine timber. After the log export ban in 1986, Japanese legal imports were reduced to small amounts of processed wood.¹⁶⁵

From the 1950s to the mid-1980s, processed wood accounted for a minor portion of total Japanese timber imports from Southeast Asia. For example, in 1984 Japan only imported 151 cubic metres of plywood from the Philippines.¹⁶⁶ Even after the ban on log

description of Philippine investments in Indonesia's timber industry, see Vitug, The Politics of Logging, pp.26-28.

¹⁶⁴In the 1960s, about 60 percent of Philippine timber exports went to Japan; by the early 1980s, Japan only accounted for around 30 percent. Boyce, The Philippines, footnote 4, p.241.

¹⁶⁵Unless otherwise noted, the Japan-Philippine trade data for this section is from Isamu Nomura, "Japan: The timber trade and its problems," in Andras Nagy, ed., International Trade in Forest Products (IIASA, AB Academic Publishers, 1988), cited in Dudley with Stolton, The East Asian Timber Trade, p.8. These figures include sawnwood and logs, although the bulk of Philippine timber exports were in the form of logs.

¹⁶⁶Hurst, Rainforest, p.191.

exports, in 1990 Filipino plywood exports to Japan were still inconsequential: 2,842 cubic metres, 0.1 percent of Japan's total plywood imports. By 1993, Japan imported even less, a mere 723 cubic metres of plywood, a negligible portion of Japan's total plywood imports of just over 4 million cubic metres (both softwood and hardwood).¹⁶⁷ As a result, unlike in Indonesia, Japanese tariff barriers on plywood have not had a major impact on Filipino timber management.

Even though Japan no longer imports Philippine logs and only buys a small amount of processed wood, past timber purchases far below the costs of regeneration or sustainable management have left deep scars that entail significant economic, social, and environmental costs. The Philippines is now struggling to regenerate swaths of degraded forests, and tackle concomitant environmental disasters, including floods, soil erosion, siltation, and rural poverty. Filipino managers cannot find the funds to absorb all these costs and still protect the remaining primary and secondary forests. One logical source of funds is Japanese development assistance.

¹⁶⁷Japan Plywood Manufacturers' Association, Plywood Industry in Japan, Table 7, p.6.

C. Japanese Forestry and 'Environmental Aid'

Japanese aid to the Philippines increased substantially in the 1970s, providing an important financial pillar for Marcos's patronage network. From 1970 to 1976, Japanese development loans swelled from 7 percent to 19 percent of total Philippine loan assistance, rising in absolute terms from US\$23.5 million to US\$308.4 million. Japan is now the largest aid donor to the Philippines, accounting for 53.5 percent of total Philippine aid in 1991. In 1992, around 12 percent of bilateral Japanese ODA went to the Philippines.¹⁶⁸ In the early 1990s, annual Japanese aid to the Philippines was around US\$1 billion.¹⁶⁹ Until recent OECF loans for reforestation, Japan had made only modest contributions to the forestry sector. From 1976 to 1992, a JICA technical cooperation project -- the Forestry Development Project Watershed Management in the Pantabangan area -- provided assistance with Philippine reforestation techniques. As well, from 1985 to 1988, JICA conducted a development study of the Cagayan River watershed to help formulate a forest management plan. JICA also provided one grant in 1978 (¥1.05 billion) and two in 1984 (¥1.07 billion and ¥103 million) to construct forestry buildings and fight forest fires.¹⁷⁰ Today, there are no JICA technical cooperation forestry

¹⁶⁸Japanese Ministry of Foreign Affairs, Japan's ODA 1993, pp.45-46.

¹⁶⁹Meriam O. Dacara, "Hiked Japanese aid to Manila seen," The Times Journal, 17 December 1993, p.1.

¹⁷⁰JICA, For Our Green Earth: Outline of JICA's Cooperation in Forestry (Tokyo: JICA, Forestry and Fisheries Development Cooperation Department, July 1993), pp.21-26.

projects in the Philippines, although a coordinator is examining possibilities.¹⁷¹

During the Aquino administration, international donors loaned substantial sums for DENR projects to protect the environment and rehabilitate and reforest degraded areas. Between 1979 and 1988, the Bureau of Forest Development was the primary recipient of only one loan and had a secondary role in eight others, in total implementing about US\$60 million. In contrast, between 1988 and 1992, DENR received loans worth over US\$500 million, accounting for a major portion of Philippine development assistance. The OECF provided a large share of these loans. The two largest loans were the 1988-92 Forestry Sector Program Loan from the ADB (US\$120 million) and the OECF (US\$120 million) and the 1991 Environment and Natural Resources Sector Adjustment Loan (ENR-SECAL) from the World Bank (US\$224 million) and the OECF (US\$100 million).¹⁷² DENR also implemented grants and grant-funded projects from USAID, several UN organizations, and numerous Northern governments. To understand

¹⁷¹Interview, Coordinator of JICA Indonesia, Jakarta, 1 March 1994.

¹⁷²Korten, "Environmental Loans," pp.6-7, including footnote 13 and footnote 53, p.27. The ENR-SECAL program has six main objectives: "a) design an integrated Protected Areas System; b) provide program support for management of ten priority protected areas; c) improve the monitoring of logging operations and enforcement of forestry laws and regulations through the provision of equipment, training and technical assistance to DENR offices...; and d) develop the capacity of LGUs [local government units] and line agencies to generate community-based resource management and livelihood projects in watershed areas..." Philippine Department of Environment and Natural Resources, "Highlights of the ENR-SECAL Program," DENR Policy Bulletin (February 1993), p.9. For more details, see Ibid., pp.9-11.

the environmental impact of Japanese development assistance, the next section evaluates the 1988-92 Forestry Sector Program Loan.

The Philippines now has more than 10 million hectares of degraded forest land. To reforest this area would cost about US\$7.8 billion. The ADB/OECF Forestry Sector Program Loan was intended to reforest 358,000 hectares over five years, "a first step on a long and expensive journey toward restoring the nation's wealth."¹⁷³ The OECF accepted ADB guidelines and procedures for this loan, remaining in the background and providing yen credit.¹⁷⁴ Yet the OECF is still responsible for any repercussions, even if by default. Although many of the principles and concepts behind this loan were laudable, and while some areas were reforested, there were significant drawbacks.

Prior to 1988, the Bureau of Forest Development had conducted most reforestation, often hiring local residents to plant and nurture the trees. The 1988-92 Forestry Sector Program Loan took a different tack, using contracts to include corporate, community, non-governmental, and family groups in managing forest areas. In theory, contractors were paid based on the survival of their trees -- if 80 percent of the trees survived after 3 years, then the

¹⁷³Korten, "Environmental Loans," p.8.

¹⁷⁴Interview, Senior officer, Asian Development Bank, Manila, 4 February 1994. As noted earlier, building on lessons learned from this project, the ADB provided another US\$100 million for the Second Forestry Sector Program Loan (1993-1995). As of February 1994, negotiations were still being conducted with the OECF to match this loan. Interviews, DENR, National Forestation Development Office, Quezon City, 3 February 1994.

contractor would be fully paid.¹⁷⁵ In some cases, contractors established effective forest plantations. Successful contractors tended to be family contractors, genuine 'community contractors' (a group of residents), or committed NGOs that worked closely with locals.¹⁷⁶

Despite these scattered accomplishments, numerous reforestation sites failed. Sometimes trees died, sometimes contractors never planted trees, and sometimes local residents burned the area. In some cases, contractors reached less than 20 percent of their target.¹⁷⁷ Several studies have estimated that after three years less than 40 percent of trees had survived. The scope and speed of reforestation under the Forestry Sector Loan contributed to problems, including poor supervision by DENR (which tended to involve paperwork rather than on-site inspections), misunderstandings, and insufficient training for contractors.¹⁷⁸ Patron-clientelism further distorted the potential benefits of this loan. Contractors often had few connections to the community and local inhabitants were hired as low-wage planters instead of being active participants. Many contractors lived in the provincial capital; instead of links to the community, they had personal ties

¹⁷⁵Korten, "Environmental Loans," p.9.

¹⁷⁶Ibid., p.14.

¹⁷⁷Interview, College of Forestry, University of the Philippines at Los Banos, 1 February 1994.

¹⁷⁸Contractors mostly planted a single species -- *gmelina arborea*. This reduced the environmental benefits of many plantations and made them more susceptible to disease and pests. Korten, "Environmental Loans," pp.16-17.

to DENR officials. Reforestation funds were used for bureaucratic patronage and 'corruption' was common. DENR officials syphoned funds by awarding reforestation contracts to 'fictitious' people.¹⁷⁹ Although perhaps somewhat exaggerated, one scholar estimated that 60 percent of the Forestry Sector Loan was 'lost' and only 40 percent went into reforestation.¹⁸⁰

Besides mixed environmental results, the Forestry Sector Program Loan has major economic drawbacks. The agreement stipulated that the loan be placed in the Central Bank to establish a 'peso account' to fund DENR's contract reforestation program. Foreign exchange was supposed to be used to purchase *essential* foreign products. However, according to Frances Korten, many "items eligible for financing were for the use of loggers and wood industry enterprises, some of which were the cause of the deforestation that the loan was presumably trying to reverse."¹⁸¹ The annual interest rate for the OECF loan -- after an initial seven year grace period -- is 2.7 percent. This must be repaid in yen after 25 years. While on the surface these are soft terms, as the yen appreciates, repayment will become increasingly onerous.¹⁸²

¹⁷⁹Interview, College of Forestry, University of the Philippines at Los Banos, 1 February 1994; and Sajise, et al., *State of the Nation Reports. Saving the Present For The Future*, p.19. The 'disappearance' of funds is not unique to the Forestry Sector Program Loan. As noted earlier, reforestation money and contracts have become a key tool of state forestry patrons.

¹⁸⁰Interview, Department of Forest Resources, University of the Philippines at Los Banos, 2 February 1994.

¹⁸¹Korten, "Environmental Loans," p.24.

¹⁸²Ibid., footnote 46, p.24.

This expands the Filipino debt, adding even more pressure to generate foreign exchange by exporting natural resources.¹⁸³ As Korten notes, "lending that couples the environmental agenda with foreign exchange...is likely to accelerate the very damage it is intended to reverse."¹⁸⁴ While Japan considers this loan part of its environmental aid, the concept 'environmental loan' is an oxymoron.

CONCLUSION: A LOOK TO THE YEAR 2000

Politics since Marcos is remarkably similar to previous political regimes as tenacious patron-client networks battle for access to and control over state resources. Many timber-based patron-client networks that dissolved in the wake of Marcos, realigned in the Aquino years. But with less valuable commercial timber, fewer quick profits, and greater voter concern with environmental degradation, ties between top state leaders and timber operators are now more tenuous and brittle. In this setting, the state has pushed harder to tackle timber mismanagement and rein in 'corrupt' state implementors. The state has cancelled, suspended, or refused to renew many timber licences; made scattered attempts to punish illegal loggers and their state allies; and -- with support from international donors -- increased reforestation

¹⁸³In May 1993, the Philippine debt was US\$34.3 billion. Philippine Department of Environment and Natural Resources, State of the Philippine Environment and Natural Resources, (Manila: Republic of the Philippines, received by author February 1994), p.2.

¹⁸⁴Korten, "Environmental Loans," p.30.

of degraded land. Yet there are still intrinsic problems. As in the past, as state leaders fight to maintain stability and control, they are unable or unwilling to break pervasive clientelist ties between local political and military leaders, middle-level state officials, enforcement officers, and timber operators. These links distort state policies and allow timber-based patron-client networks to capture state bureaus, crippling state capacity to enforce rules and collect taxes. As a result, poor logging techniques, inadequate silvicultural treatments, extensive illegal logging in primary forests and national parks (estimated to be equivalent to legal production), insufficient reforestation, and low state timber revenues continue to drive deforestation.

Post-Marcos Philippines also highlights the potent residue of ecological shadows. Japanese trade, technology, and investment now have little direct impact on timber management. But past Japanese log purchases at prices far below the cost of sustainable management have left deep scars that impair current efforts to manage timber. Rebuilding a viable commercial timber industry will necessitate finding the funds and means to replace lost forests while still paying for concomitant environmental damage, including extensive soil erosion and climate changes that reduce agricultural productivity and produce calamitous floods. Considering the environmental impact of Japan's past practices, Japanese aid is a logical source of funds. Yet there are currently no technical cooperation projects or grants in forestry. Instead, Japan has provided 'environmental loans'. While these yen loans have

supplied foreign exchange and financed a few successful reforestation and conservation sites, there are severe problems. In the case of the ADB-OECF First Forestry Sector Program Loan, a large portion of the money was wasted by administrators and contractors, or syphoned by bogus NGOs, local political and military leaders, and DENR officials. Moreover, the concept 'environmental loan' is flawed; rather than offsetting Japanese past practices, these loans will eventually create even more pressure to extract and export natural resources to service the accompanying debt.

Over the last century, commercial loggers -- protected by state patrons and driven by Japan's shadow ecology -- have ravaged Southeast Asia's primary forests. In 1900, primary rain forests covered 250 million hectares of Southeast Asia; by 1989, only 60 million hectares remained.¹⁸⁵ The history of timber mismanagement in the Philippines suggests a bleak forecast for the rest of Southeast Asia's primary forests.¹⁸⁶ Japan's shadow ecology is

¹⁸⁵Mark Poffenberger, "Introduction: The Forest Management Crisis," in Poffenberger, ed., Keepers of the Forest, p.xix.

¹⁸⁶It is already too late for Thailand. Thai commercial loggers -- protected by state patrons and driven by Northern markets and funding -- cleared and degraded much of the country over the last four decades. Largely as a result, forest cover declined from 70 percent after the Second World War to 19 percent at the end of the 1980s. In 1989 when logging was banned most of the best timber tracts were already exhausted. Today, timber companies survive by importing logs from Cambodia, Burma, Laos, and Vietnam, and by extensive illegal logging in Thailand, estimated at 2.5 million cubic metres a year. Peter Dauvergne, "The Failure of Forestry Management in Thailand: Politics Behind Deforestation," 1993, an unpublished paper presented at a SEADOC Seminar, Centre for Southeast Asian Research, University of British Columbia, 27 January 1993.

pushing Borneo Malaysia and Indonesia down the Philippine path of widespread deforestation. Poorly designed Japanese aid programs often tied to corporate motives, inappropriate technology transfers, short-sighted purchasing practices, and voracious consumption have facilitated and accelerated destructive timber extraction. As well, low purchase prices and tariff barriers to processed wood (especially Indonesian plywood) have reduced Southern state revenue essential for sustainable management. These practices have left deep environmental and economic scars that impede current efforts to fund and manage sustainable timber operations. Problems are reinforced and exacerbated by elite attitudes, a need to service foreign debt, and international incentives to 'develop'.

Besides Northern pressures, clientelist forces are also driving Borneo Malaysia and Indonesia toward a future similar to the Philippines. As leaders battle to survive in societal webs of patron-client ties, clientelist networks flourish at all levels of the state and society. These pervasive links distort state policies, contribute to a small elite prospering from timber profits, create complex and murky layers of subcontractors, generate an unpredictable atmosphere that encourages quick and destructive extraction, subvert supervision of state implementors, and thwart state enforcement of timber regulations. Protected by state patrons, Southeast Asian loggers damage one-third to two-thirds of the trees left after legal harvesting. Illegal logging -- often in parks, wildlife sanctuaries and watersheds -- is an

even greater problem. In Indonesia alone, as much as 35 million cubic metres of illegal logs -- equivalent to the legal harvest -- are cut each year. Many of these logs are then smuggled overseas or used by inefficient local processors. Extensive illegal logging and smuggling decrease state revenue necessary for sustainable management. State coffers are further plundered by timber companies that evade remarkably low royalties and taxes. In Borneo Malaysia and Indonesia, the state only collects a small fraction of potential timber revenues. In addition, clientelist states and private companies have neglected conservation and reforestation or, as in Indonesia, the government has used 'reforestation' to build immense fast-growing timber plantations.

Without radical changes to the clientelist states of Southeast Asia or to Japan's shadow ecology, there is no chance that Indonesia, Sabah, Sarawak, or the Philippines will reach the ITTO goal of sustainable timber management by the year 2000. Reforming Southeast Asian political and social interaction is obviously a difficult task. As the Philippines shows, patron-client relations are resilient; even breaking these ties at the top of the state will not guarantee significant improvements to timber management. Rather than navigate the treacherous shoals of possible Southern political reforms -- a route that I believe is especially precarious for cultural outsiders -- it is more productive, and perhaps more feasible, if still arduous, to manipulate Northern shadow ecologies. In theory, Northern resources can promote sustainable management, and perhaps even undercut particularistic

patron-client networks and strengthen state capacity to enforce regulations. The final chapter explores Japan's ecological shadow of timber in search of ways to facilitate better forestry management and boost state capacity in Southeast Asia.

Conclusion

JAPAN'S ECOLOGICAL SHADOW OF TIMBER IN SOUTHEAST ASIA

This chapter evaluates the impact of Japan's shadow ecology of timber in the clientelist states of Southeast Asia. I examine the three core elements of Japan's shadow ecology: government technical assistance, grants, and loans; corporate investment, and technology transfers; and trade, including corporate purchasing practices, export and consumer prices, wasteful consumption, and import tariffs. I outline the main trends from the 1950s to the mid-1990s, assess the repercussions of post-1990 Japanese corporate and government overseas environmental policies, and discuss possible reforms to encourage sustainable timber management in the South. I argue that recent Japanese corporate and government moves to address the environmental impact of overseas activities have not altered the fundamental impact of Japan's ecological shadow of timber. Even though Japanese investment, technology, and aid now have fewer detrimental effects on Southeast Asian timber management, the residual and proximate repercussions of Japanese trade continue to accelerate deforestation. Fundamental reforms to Japan's timber trade are essential.

The Japanese government has focused on reshaping the least potent element of Japan's shadow ecology -- ODA. This has contributed to marginal improvements to ODA forestry initiatives in Southeast Asia, particularly JICA technical cooperation projects. Aid now concentrates less on facilitating commercial logging, and

more on conservation, large-scale reforestation, and improving Southern processing efficiency. But there are still serious deficiencies. JICA and OECF environmental guidelines are vague and non-binding. There are few JICA or OECF environmental experts, and most aid staff have little field experience in tropical forests. Poor coordination between Japanese ministries, aid distribution based on Southern elite requests, informal ties to Japanese companies, poor cooperation with NGOs, and inadequate supervision of aid money compounds these problems. Partially as a result, environmental reviews of forestry projects are often ineffective, and Japanese aid -- under the guise of 'reforestation' -- has supported inappropriate technology transfers and fast-growing timber plantations. Finally, the forestry sector receives only a small portion of environmental aid, much of which has been misguided -- such as environmental loans to the Philippines.

While the government tinkers with aid projects, new Japanese corporate environmental departments and guidelines, and revised rules to integrate environmental factors into corporate decisions have produced more sophisticated rhetoric and token forestry conservation projects, but few concrete changes to business practices. Both Japanese companies and powerful government departments ignore or superficially address the critical factors driving Southeast Asian deforestation: wasteful consumption of tropical timber from unsustainable sources; timber prices far below replacement or sustainable management costs; import tariffs that syphon Southern revenues essential for sustainable management; and

residual effects that leave Southern governments struggling to find the funds to cope with a plethora of environmental and economic problems.

Japan has the potential to facilitate sustainable management rather than accelerate destructive logging. But considerable reforms are necessary. The Japanese government must accept responsibility for past environmental practices, and restructure and increase the amount of environmental aid. Japanese consumers must use less and pay more for tropical timber. These additional revenues must be transferred to sustainable Southern timber concessions. Japanese companies and the Japanese government must avoid intentional or inadvertent policies and practices that undercut Southern state capacity to collect revenues, enforce regulations, and manage environmental problems. And once bilateral or multilateral mechanisms are built to determine 'sustainable' and 'unsustainable' timber, Japanese companies must limit timber purchases, investments, credit lines, and technology transfers to sustainable concessions.

JAPANESE TECHNICAL ASSISTANCE, GRANTS, LOANS AND TROPICAL FORESTS

Under pressure from the international community, Japan rapidly increased the quantity of ODA in the 1970s and 1980s. Today, Japan is the world's largest bilateral aid donor and the major contributor to the Asian Development Bank. This aid has provided vital scientific and technical assistance to many Southern countries. But while Japanese aid has certainly provided benefits,

it has also entailed environmental costs. As with all Northern donors, Japan's ODA has promoted and supported its overseas business and strategic goals. Indicative of Japan's attitude is an unpublished 1980 report by the Ministry of Foreign Affairs which defines ODA as "the cost of building an international order to secure Japan's overall national security."¹ General JICA projects and OECF loans -- especially for agricultural development, and infrastructure such as roads, dams, and ports -- have contributed to forest destruction. Dams have flooded large areas of tropical forest, roads have opened up remote areas to slash-and-burn farming, and agricultural projects have cleared areas for cash-crop exports.² Aid channelled specifically to the forestry sector has also helped Japanese corporations exploit Southeast Asia's forests, especially in Indonesia where Japanese direct investment was a key force behind the logging boom. As Richard Forrest and Yuta Harago note, forestry aid has funded "inventories of forest resources for later logging," and transferred "knowledge and technology related to unsustainable logging techniques."³ In the 1960s and 1970s, Indonesia received around 70 percent of OECF forestry loans -- the bulk from 1969 to 1974, as logging peaked. During these two decades, JICA conducted logging surveys and feasibility studies;

¹Japanese Ministry of Foreign Affairs, "The Concept of Economic Cooperation -- Why Do We Carry Out Official Development Assistance?" cited in Constantino, The Second Invasion, p.71.

²Forrest and Harago, Japan's Official Development Assistance, p.4.

³Ibid.

intergovernmental OECF loans funded infrastructural projects essential for logging and massive log exports; and OECF loans to Japanese companies offset risky timber investments.

Since the early 1990s, fewer JICA intergovernmental forestry cooperation projects are linked to commercial loggers or securing wood imports. More projects now stress regenerating degraded forests, conserving rain forests, and developing social and community forestry.⁴ JICA has also changed the emphasis of forestry loans to Japanese corporations. From 1974 to 1994, JICA provided 144 soft loans to Japanese companies investing in the South. Of these, 51 were forestry projects: 15 in Indonesia; 1 in Limbang, Sarawak; and 6 in the Philippines.⁵ In the past, many of these loans funded fast-growing monoculture tree plantations. NGOs and environmentalists criticized these projects for ignoring indigenous people's rights, clearing natural forests, and providing minimal environmental benefits. According to a senior JICA official, in an effort to appease these critics, JICA now ensures that concessional loans only fund plantations in degraded areas. JICA also encourages companies to plant a variety of endemic

⁴Interviews, Senior official, Forestry Cooperation Division, JICA, Tokyo, 12 April 1994; and Senior official, International Forestry Cooperation Centre, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries, Tokyo, 19 April 1994. Social forestry projects emphasize broad social aspects, while community forestry projects tend to be small, community-based projects.

⁵This data was provided by an official at the Forestry Cooperation Division, JICA, Tokyo, 12 April 1994.

species to foster bio-diversity.⁶ In addition, to facilitate corporate participation in forestry conservation, JICA recently established an Environmental Protection Credit Line. Loans will supposedly reforest degraded areas; protect watersheds and primary forests; and support social and community forestry projects.⁷

Despite these apparent improvements, JICA's forestry and environmental projects still have significant problems. JICA's guidelines and procedures for pre-and-post-project environmental reviews are vague and inconsistent. Projects still fund technology transfers with little institutional support -- in some cases, the equipment never leaves the box.⁸ As Forrest notes, instead of promoting conservation, Japan "transfers high-technology equipment, ensuring lucrative profits for Japanese companies."⁹ As well, JICA still supports dubious reforestation techniques in Southeast Asia, particularly fast-growing eucalyptus and acacia mangium plantations.¹⁰ In Indonesia, JICA emphasizes large-scale industrial timber estates. JICA's last project in Sabah -- the JICA-SAFODA Re-afforestation Technical Development and Training Project which ended in 1994 -- provided technical support for fast-

⁶Interview, Senior official, Forestry Cooperation Division, JICA, Tokyo, 12 April 1994.

⁷Ibid.

⁸Interviews, Environmental consultants, Bogor Indonesia, 24 February 1994.

⁹Forrest, "Japanese Aid and the Environment," pp.31-32.

¹⁰See Kanda, "A Big Lie: Japan's ODA and Environmental Policy," p.44; and Forrest, "Japanese Aid and the Environment," p.31.

growing acacia-mangium plantations. At present, there are no JICA forestry projects in Sabah or the Philippines, and only one in Sarawak, designed to improve domestic processing efficiency. Despite the new policies, it is clear that only a negligible portion of JICA technical cooperation actually supports social and community forestry projects, natural forest regeneration, and primary rain forest conservation.

Along similar lines as JICA, the OECF and the EXIM Bank have also expanded their environmental departments and developed procedures to consider environmental factors when evaluating loan applications. This has contributed to more refined rhetoric, but no obvious changes to forestry loans. Although it is difficult to be certain since OECF and EXIM Bank environmental procedures and evaluations are shrouded in secrecy, few loan requests seem to be rejected for environmental reasons.¹¹ OECF and EXIM Bank environmental departments appear more concerned with avoiding scandals than promoting environmental management in the South.

General problems with Japanese ODA hinder attempts to incorporate environmental and social factors into grants, technical cooperation, and loans. Despite some commendable principles, Japan's new Environment Law and ODA guidelines are ineffective. Numerous clauses are ambiguous and there are no concrete enforcement mechanisms or penalties. There is also little

¹¹At present, the EXIM Bank is not financing any logging projects in the Philippines, Malaysia, or Indonesia, although unlike the World Bank, the EXIM Bank is prepared to provide loans to tropical loggers. Interview, Senior official, Environment Section, Export-Import Bank of Japan, Tokyo, 11 April 1994.

coordination or cooperation between key ministries -- MITI, the Ministry of Foreign Affairs, the Ministry of Finance, the Economic Planning Agency, the Environment Agency and the Forestry Agency -- or the two implementing agencies, JICA and the OECF. Convoluted guidelines and a fragmented aid structure impede environmental reviews and obscure accountability. Environmental miscalculations are further aggravated by a lack of aid staff with environmental expertise, field experience, or in-depth knowledge of the diverse cultures and eco-systems of insular Southeast Asia. The emphasis on concessional loans -- which comprise over half of Japan's ODA, more than any other donor's -- also thwart environmental objectives. As the yen appreciates, repaying these loans has become increasingly onerous. Rather than promoting environmental protection, Southern states -- in search of foreign exchange -- turn to unsustainable natural resource exports. Japan's request-based aid further undermines moves to integrate environmental objectives. Recipient countries are often ambivalent or apathetic about environmental protection, and tend to request aid for high-tech infrastructure projects with immediate economic returns. The allotment of ODA funds is also poorly supervised and large chunks have been syphoned by Southern patron-client networks.¹² Finally, effective Japanese aid projects are undermined by continuing links to Japanese trading companies, and poor cooperation with NGOs,

¹²For example, Japanese ODA funds were apparently channelled to Ramon Mitra's 1992 Philippine presidential campaign. Takashi Sadahiro, "ODA allegedly used in Manila election," Daily Yomiuri, 16 May 1994, p.1.

environmental groups and communities.

JAPANESE ENVIRONMENTAL AID AND TROPICAL FORESTS

In FY1992, almost 17 percent of Japanese ODA was allocated as 'environmental aid'. There are clear problems with this aid. The definition of environmental aid is ambiguous; this total was in part derived by simply reclassifying traditional projects. Moreover, 'environmental loans' have accounted for about 70 percent of this aid. Under MITI guidance, environmental aid has focused on exporting environmental technology to tackle industrial pollution, especially urban water and sewage management. As a result, except in the Philippines, only a small portion has funded conservation, reforestation, or tropical forestry management.¹³

The Philippines is now struggling to cope with the environmental repercussions of deforestation, including soil erosion and siltation, devastating floods, and rural poverty. Japanese aid -- which can be seen as partially derived from economic growth propelled by unsustainable resource imports -- is a logical source of funds to tackle environmental and forestry problems in the Philippines. But Japan's response -- environmental loans like the 1988-92 Forestry Sector Program Loan -- have had marginal environmental rewards and considerable economic penalties. In the case of the Forestry Sector Program Loan, the economic

¹³According to forest managers in Indonesia and Malaysia, environmental aid has had little impact on timber management. Based on more than 50 interviews in Sabah, Sarawak, Kuala Lumpur, and Indonesia, from late January to late March 1994.

burden is compounded by the failure of many reforestation sites, by contractors and government officials who wasted funds, by patron-client networks that syphoned substantial portions (perhaps as much as 60 percent), and by the steady appreciation of the yen.

JAPANESE CORPORATE INVESTMENT AND TECHNOLOGY TRANSFERS

To increase the speed and volume of log extraction in Southeast Asia, Japanese trading companies have supplied capital, equipment (chain saws, bull dozers, and road machinery), and technical advice, often in exchange for logs. Through credit, equipment, and minority shares Japanese traders have influenced prices and export volumes. However, except in Indonesia in the late 1960s and 1970s, Japanese companies have avoided major direct investments in logging operations or timber processing, and instead have emphasized securing and buying large amounts of high-quality logs at the lowest possible price.¹⁴ Most Japanese investors pulled out of Indonesia after the gradual log export ban in the first half of the 1980s. Today, as accessible and valuable tropical timber becomes increasingly scarce, as Japan's plywood industry fades, and as environmental criticism mounts, Japanese companies have even less interest in lengthy commitments to

¹⁴Prior to the late 1960s, Indonesia had little logging infrastructure. Risky investments enabled Japanese traders to secure access to Indonesia's vast primary forests. These investments were facilitated by MITI, strategic ODA disbursements, and Indonesian foreign investment laws.

Southeast Asia's logging sector.¹⁵ Trading companies now provide few technical advisors or long-term lines of credit.¹⁶ Even with the rapid appreciation of the yen since the mid-1980s, there is almost no Japanese investment in the timber industries in Borneo Malaysia and the Philippines, and only a small amount in wood processing and pulp and paper in Indonesia.¹⁷ Japanese plywood processors also have no plans to relocate to Southeast Asia, despite the financial struggles of many mills in Japan.¹⁸

Despite abundant profits from the tropical timber trade, Japanese companies have been even more reluctant to finance or participate in major conservation or reforestation projects. Several factors inhibit Japanese investment in forestry conservation and timber processing. Trading companies are structured to maintain stable resource supplies, and preserve corporate equilibrium. These companies generally purchase large volumes with low profit margins, and avoid long-term commitments essential for effective reforestation or sustainable timber operations. According to Yuta Harago of the WWF Japan: "They are

¹⁵JATAN, Tropical Forest Destruction and Japan's Timber Trade, Summary of the Revised Version of Timber from the South Seas (WWF Report, 28 February 1994), p.1.

¹⁶Interviews, Senior officials, Green Environmental R&D Division, Sumitomo Forestry Co., Ltd., Tokyo, 20 April 1994.

¹⁷Other Northern MNCs have also avoided timber investments, and most timber operations in the Philippines, Borneo Malaysia, and Indonesia are now controlled by domestic interests. Gillis, "The Logging Industry In Tropical Asia," p.179.

¹⁸Interview, Executive Director, Japan Plywood Manufacturers' Association, Tokyo, 8 April 1994.

basically traders, not investors. So they aren't obliged to think in terms of 30-year projects."¹⁹ In addition, environmentalists and the media tend to scrutinize and fervently criticize timber joint ventures. On the other hand, even though the economic and environmental consequences may be far greater, it is more difficult to develop sensational stories about purchasing practices and import prices. Southeast Asian politics also curb Japanese corporate investment. While clientelist states are natural prey to feed voracious Northern processors and consumers, they provide little security for investors. Japanese companies are wary of sudden political shifts that could undercut concession licences or change informal rules that allow quick, profitable logging. Finally, quite naturally firms do not want to sink money into poorly managed, likely doomed timber operations.

JAPAN'S TIMBER TRADE IN SOUTHEAST ASIA

A. Japanese Corporate Purchasing Practices

The timber trade has been a key force accelerating deforestation in Southeast Asia. Southeast Asia accounts for two-thirds of the tropical timber products on the world market.²⁰ Japanese companies have dominated this trade. At no time have Japanese traders considered the source or long-term environmental implications of wood imports. Instead, as supplies have dwindled,

¹⁹Kathryn Graven, "Japan's Timber Consumption Draws Fire," AWSJ, 8 February 1990.

²⁰Nectoux and Kuroda, Timber, p.18.

or after Southern governments have restricted exports, Japanese firms have simply moved to new sources. In the 1950s and 1960s, the Philippines was the main source of Japanese tropical logs. In the early 1960s, Philippine logs accounted for around two-thirds -- and Sabah for around one-third -- of Japanese log imports from Southeast Asia. Japanese log imports from the Philippines continued to rise throughout the 1960s, peaking at the end the decade. However, as accessible Philippine primary forests were depleted, and as Japanese consumption of tropical logs surged, Japanese companies increasingly turned to Sabah, Indonesia, and to a lesser extent Sarawak.

In 1970, the Philippines was still Japan's largest source of tropical logs. Japan imported 7.5 million cubic metres of Philippine logs, 6.1 million cubic metres from Indonesia, 4.0 million cubic metres from Sabah, and 1.9 million cubic metres from Sarawak. In 1971, Indonesia replaced the Philippines as Japan's key source of logs. In that year, Japan imported 8.2 million cubic metres of logs from Indonesia, 5.7 million cubic metres from the Philippines, 4.1 million cubic metres from Sabah, and 1.5 million cubic metres from Sarawak. In 1974, Japanese tropical log imports from Southeast Asia peaked at 26.8 million cubic metres. In that year, Japan imported nearly 11.5 million cubic metres of logs from Indonesia, over 7 million cubic metres from Sabah, 3.9 million cubic metres from the Philippines, and 950,000 cubic metres from Sarawak. After the mid-1970s, Japanese log imports gradually declined as accessible, cheap log stocks dwindled and as Japan's

plywood industry contracted. In 1976, Japan imported 22.2 million cubic metres of Southeast Asian logs: 9.7 million cubic metres from Indonesia, 8.5 million cubic metres from Sabah, 1.7 million cubic metres from Sarawak, and 1.7 million cubic metres from the Philippines. By 1980, total Japanese log imports from Southeast Asia had dropped to 19.0 million cubic metres: 8.6 million cubic metres of logs from Indonesia, 6.3 million cubic metres from Sabah, 2.3 million cubic metres from Sarawak, and 1.1 million cubic metres from the Philippines.

As Indonesia slashed log exports in the early 1980s, Japanese traders maintained a steady supply from Sabah, and boosted log imports from the lower-grade forests of Sarawak. In 1982, Japan imported 15.1 million cubic metres of logs from Southeast Asia: 6.4 million cubic metres from Sabah, 4.0 million cubic metres from Sarawak, 2.5 million cubic metres from Indonesia, and 1.3 million cubic metres from the Philippines. In 1987, after the complete ban on Indonesian and Philippine log exports, Borneo Malaysia accounted for over 90 percent of Japan's total log imports from Southeast Asia: 7.0 million cubic metres from Sabah and 5.5 million cubic metres from Sarawak. Without access to the vast tracts of Indonesian old-growth forests, in that year Japanese log imports from Southeast Asia dropped to 13.7 million cubic metres.

In the late 1980s, as accessible, high-quality commercial forests became increasingly scarce in Sabah, Japanese companies turned even more to Sarawak. In 1988, Japan imported 5.4 million cubic metres of logs from Sabah and 5.3 million cubic metres from

Sarawak. Japanese log imports from Sabah then fell sharply, from 4.6 million cubic metres in 1989 to 3.4 million cubic metres in 1990, to 2.1 million cubic metres in 1992, to less than 300,000 cubic metres after the log export ban in 1993. Sarawak is now Japan's most important source of logs. Japanese log imports from Sarawak climbed to around 6.7 million cubic metres in 1989 and 1990, then fell slightly to 6.5 million cubic metres in 1991 and 6.4 million cubic metres in 1992. After the Sarawak government imposed greater log export restrictions in 1993, Japanese log imports dropped to 4.9 million cubic metres. To partially replace tropical logs from Borneo Malaysia, Japan has increased log imports from Papua New Guinea, the Solomon Islands, Burma, and Africa.²¹ Nevertheless, tropical log imports continue to fall as hardwood supplies diminish throughout the Asia-Pacific region, as Japan's recession impedes builders, as Japan imports more tropical plywood, and as plywood processors refine techniques to make softwood plywood,²² using temperate logs from the U.S., Canada, New Zealand, China, and Russia. As a result of all these changes, in 1993 Japan

²¹In 1990, Japan imported 608,000 cubic metres of logs from Papua New Guinea, 254,000 cubic metres from the Solomon islands, 29,000 cubic metres from Burma, and 126,000 cubic metres from Africa. By 1993, Japan imported 1,662,000 cubic metres from Papua New Guinea, 335,000 cubic metres from the Solomon Islands, 85,000 cubic metres from Burma, and 507,000 cubic metres from Africa. JATAN, "Asia-Pacific Forests," Table I, based on data from the Japan Tariff Association.

²²In 1993, more than 40 Japanese mills manufactured softwood or mixed (softwood and hardwood) plywood, accounting for 14.6 percent of total production. "Wholly or partly softwood plywood is 15% of total plywood production last year," Japan Lumber Reports, published by Japan Forest Products Journal, no. 198, 9 September 1994, p.1.

imported only 7.4 million cubic metres of Southeast Asian logs.²³

Besides these legal log purchases, Japanese timber traders in Southeast Asia have cooperated with -- and perhaps participated in -- smuggling syndicates, transfer pricing, and schemes to alter volumes, species, extent of processing, and log diameters on Southern customs documents. In Borneo Malaysia, loggers and customs officials have routinely forged legal log export documents. The bulk of these logs have been shipped to Japan. In 1981 alone, over one million cubic metres more Philippine logs entered Japan than were recorded by Filipino customs officials. More recently, Mitsui was caught smuggling logs out of Cambodia after the 1993 UN embargo.²⁴

²³See Chart I on the next page. The category 'other' includes the Solomon Islands, Papua New Guinea, Vietnam, Burma, Laos, Cambodia, and other less important exporters in the region. These statistics are from the Japan Plywood Manufacturers' Association, Plywood Industry in Japan, 1993, pp.24-25; the Japan Plywood Manufacturers' Association, Plywood Industry in Japan, April 1994, p.8; and data from the Japan Lumber Importers' Association, received by the author, 4 April 1994. Also see Nectoux and Kuroda, Timber, Figure B7, p.118.

²⁴"UNTAC accuses Mitsui of violating ban on log exports from Cambodia," The Japan Times, 18 February 1993, p.2.

Chart I

Japanese Log Imports From SE Asia

B. Export and Consumer Prices, Consumption, and Low State Revenue

Japan's share of global tropical wood consumption soared from 4 percent in 1950 to about 50 percent in the 1980s.²⁵ Today, Japan is the world's largest importer of tropical logs and plywood.²⁶ Since the 1950s, Japanese traders have paid remarkably low prices for Southeast Asian logs, sawn timber, veneer, and plywood. These prices have assumed that primary forests are essentially free, reflecting extraction and transportation costs, and ignoring the investment, manpower, and time it will take to regrow a tree, and the social and environmental costs of degrading the forest ecosystem. This fosters two bizarre consumption patterns in Japan. It is cheaper to import primary dipterocarp logs than to harvest domestic plantations to manufacture plywood;²⁷ and it is more economical to burn hardwood furniture and *kon pane* than to reuse or recycle them. As a result, Japanese consumers have 'wasted' enormous amounts of tropical timber.²⁸ Cheap timber imports have also enabled Japan to protect its own forests. In 1991, the OECD estimated that Japan extracted only 53 percent of their annual

²⁵Boyce, The Philippines, p.227.

²⁶JATAN. "Asia-Pacific Forests," p.1.

²⁷Japanese plywood processors import 92 percent of their log supply. Japan Plywood Manufacturers' Association, Plywood Industry in Japan, 1994, p.5.

²⁸In 1987, about one-third of Japanese plywood was used as *kon pane*. Sandra Postel and John C. Ryan, "Reforming Forestry," State of the World 1991. A Report on Progress Toward a Sustainable Society. (New York: W.W. Norton & Company, 1991), p.85. Japanese builders now use more coated *kon pane*, which can be reused three to ten times. But this is still an incredibly wasteful drain on tropical timber.

growth, allowing a significant net increase in forest cover.²⁹ Today, around two-thirds of Japan is covered in forests; about 41 percent of these forests are planted. As a result, Japan is one of "the most heavily forested countries in the world."³⁰

While Japanese timber traders and processors have made substantial profits, and while Japan has judiciously protected its own forests, low log export prices -- coupled with illegal logging, smuggling, low Southern timber fees, and the inability of clientelist states to collect domestic taxes and royalties -- have left Southern states without enough revenue for sustainable management. A 1991 ITTO study showed that "producer countries captured only 9 percent of the final product price (comprising production costs, government revenues and profits)...when exporting raw logs...The remaining 91 percent went to consumer countries." For some Southern states, forest charges to assess the value of the standing tree were less than 1 percent of the final price.³¹

C. Indonesian Plywood Exports and Japanese Import Barriers

Bob Hasan and Apkindo have exploited wasteful consumption habits to break into Japan's plywood market. Since the mid-1980s, Apkindo has flooded Japan with cheap plywood. Indonesia now supplies around 40 percent of total Japanese plywood consumption

²⁹Summarized in Boyce, The Philippines, pp.227-228.

³⁰Japanese Forestry Agency, Forestry White Paper: Fiscal Year 1992, Summary (Tokyo: Government of Japan, 1993), p.2.

³¹Summarized in Arden-Clarke, "South-North Terms of Trade," p.127.

and about 70 percent of *kon pane*. To capture Japan's plywood market and destroy Japanese processors, Apkindo has suppressed the price of plywood and forced manufacturers to export 40 percent of production to Japan.³² Apkindo also established Nippindo to import plywood directly, bypassing Japanese overseas trading and shipping companies.³³ As a result, Indonesian plywood prices not only ignore environmental and social costs but also underestimate the full economic costs of extraction and transportation. Moreover, Japanese import charges on plywood further decrease Indonesian state and corporate revenue. The result is proliferate and wasteful Japanese consumption of Indonesian plywood, a large percentage of timber revenues accruing to the Japanese state, insufficient Indonesian revenue for sustainable timber management, and few economic incentives for efficient processing and effective use of wood waste.

³²Japan's plywood industry has had severe economic problems as Apkindo bombards the market with cheap plywood, as tropical log stocks disappear, and as Southern states restrict log exports, sometimes, as in Sabah, with no warning. In 1987, Japan processed 7.34 million cubic metres of plywood. By 1992, plywood production had dropped to 5.95 million cubic metres. Japan Lumber Journal, 31 December 1993, p.4. This points to a neglected area of research: the impact of environmental change and political responses in the South for economic and social change in the North. This suggests a mutual interdependence and vulnerability of South-North resource extraction and consumption. Some authors have started to explore these issues. For an analysis of the social consequences of international timber markets on Japan, see Patricia M. Marchak, "Global Markets in Forest Products," in Peter N. Nemetz, ed., Emerging Issues in Forest Policy (Vancouver: UBC Press, 1992), pp.339-369.

³³Nippindo still uses conventional distribution channels in Japan. Plywood is sold to Japanese trading companies which then sell to wholesalers and processors. Urano, "Commercial Exploitation," footnote 70, p.93.

JAPANESE ENVIRONMENTAL GUIDELINES AND THE TIMBER TRADE

The current campaign by the Japanese government, Keidanren, and the major trading companies to improve Japan's international environmental image has contributed to more sophisticated environmental rhetoric and perfunctory corporate and government efforts to support better timber management. Corporate brochures now call for advice and equipment to improve the efficiency of Southern wood processors³⁴ -- a move that would presumably reduce wood waste and decrease some of the pressure on tropical forests. There are also scattered corporate calls to reduce wasteful tropical timber consumption and buy timber from sustainable sources. Marubeni claims that it "will only purchase timber from such logging companies who strictly follow laws and regulations on logging and adhere to environmentally sound management."³⁵ The Japanese Building Contractors Society -- comprising 81 key companies -- announced in 1992 a non-binding target to reduce tropical plywood consumption by 35 percent over the next five years, "in order to help protect the world's tropical rain

³⁴For example, see Marubeni, "Friendly To Forests And To Our Mother Planet," Internal document (Tokyo: Marubeni, undated); Marubeni, Earth Conscious (Tokyo: Marubeni, March 1994); and Sumitomo Forestry, Sumitomo Forestry: Annual Report 1993 (Tokyo: Sumitomo Forestry, 1993), p.4.

³⁵Marubeni, Earth Conscious, p.7. Also see Marubeni, "Friendly To Forests." At the same time as publicly declaring 'new' purchasing practices, Japanese trading companies downplay their role, claiming local slash-and-burn farmers are the key cause of deforestation while the timber trade has little global impact. Makoto Inoue, "Who's Killing the Rain Forests?" Japan Views Quarterly (Autumn/Winter 1992), p.12. This view was confirmed during interviews at Keidanren, Mitsubishi, Itochu, Nissho Iwai, Sumitomo, and Marubeni, Tokyo, April-June 1994.

forests."³⁶ On a voluntary basis, in the early 1990s the Japanese Lumber Importers' Association (JLIA) -- comprising 131 companies, including the major trading companies -- developed importing guidelines to improve forestry management. Companies agreed to import in "an orderly manner," follow ITTO's 'Guidelines for Continued Management of Tropical Natural Forest', and urge "timber suppliers of long term contract to abide by the ITTO guidelines." These companies also agreed to buy and use scrap wood, provide information to local cutters to encourage better cutting practices, and promote value added processing in the South.³⁷ Meanwhile, the Japan Plywood Manufacturers' Association -- with technological support from the Japanese government -- also plans to lower tropical wood consumption and use softwood logs for 30 percent of plywood production by 1996.³⁸

The Japanese government has also made sporadic calls to lower tropical timber imports, improve corporate purchasing practices,

³⁶Japanese Building Contractors Society, "Methods To Reduce The Consumption of Plywood Forms Which Use Tropical Timber," Internal document (Tokyo, Building Contractors Society, Board of Directors, 19 February 1992).

³⁷Government of Japan, "Japan's Paper For Proposed Progress Towards The Year 2000 Target," Presented at the International Tropical Timber Council, November 1991, pp.3-5. Also see "Lumber Importers Issue Rain Forest Guidelines," The Daily Yomiuri, 5 December 1991.

³⁸"Wholly or partly softwood plywood is 15% of total plywood production last year," Japan Lumber Reports. Published by Japan Forest Products Journal, no. 198, 9 September 1994, p.1; and Government of Japan, "Japan's Paper," p.5. Japanese plywood makers claim that the move to softwood logs is motivated by environmental concerns. But it is far more likely an attempt to survive the onslaught of cheap Indonesian plywood and more expensive hardwood logs, and prepare for the future collapse of tropical log stocks.

and internalize environmental costs into timber prices. The Construction Ministry's new industry guidelines call for builders to reduce practices that waste tropical timber.³⁹ The Forestry Agency has also announced plans to encourage companies to limit timber purchases to sustainable sources and lower tropical timber imports by 20 percent over five years.⁴⁰ At a 1991 International Tropical Timber Council session, Japan declared that it "intends to make active contributions to a series of ITTO meetings which will estimate and examine the costs of sustainable management, aiming that prices of tropical timber cover the costs of sustainable management."⁴¹ At the same meeting, the Japanese government announced a program for "rational utilization" to reduce tropical timber consumption. Japan agreed to support measures to use less and reuse more *kon pane*, substitute non-tropical logs to make plywood, and educate the Japanese public on the inherent value of tropical rain forests. Japan also agreed to promote research,

³⁹Interview, JATAN, Tokyo, 26 May 1994.

⁴⁰Summarized in Yoichi Kuroda, "The Tropical Forest Crisis and the Future Course of Japanese Society," Research on Environmental Disruption toward Interdisciplinary Cooperation (Special Edition, Global/International Environmental Problems 2, Iwanami Shoten, July 1991), p.6.

⁴¹Government of Japan, "Japan's Paper," p.6. Not surprisingly, Japanese corporations are extremely hesitant to connect low prices with environmental mismanagement. Keidanren's Environmental Charter does not address incorporating environmental costs into price. Interview, Global Environment Department, Keidanren, Tokyo, 7 April 1994. In the case of Sumitomo, officials argued that the price of tropical timber has actually been quite high -- particularly in 1993 -- and there is no evidence of insufficient funds for reforestation or sustainable management. Interviews, Green Environmental Research R&D Division, Sumitomo Forestry, Tokyo, 20 April 1994.

training, and technology for value-added Southern processing, and to "study the utilization of non-wood forest products and the commercially less accepted species."⁴² Since then, several local Japanese governments -- including Tokyo, Osaka, Kanegawa, Kyoto, Nagoya, and Sapporo -- have also announced plans to reduce the amount of tropical *kon pane* used in public projects.⁴³ More recently, the central government reiterated its support for the ITTO objective to limit trade to timber produced from sustainable sources by the year 2000, and agreed to "contribute to discussions to establish rules of timber trade, with a view to conserving the world's forests."⁴⁴

Despite a profusion of glossy corporate environmental brochures and more refined government environmental rhetoric since the early 1990s, there is little evidence of concrete changes to Japanese trade practices or to the attitudes of decision makers. This public relations campaign has contributed to a few token forestry conservation projects -- such as Sumitomo's experimental project to replant an indigenous forest in East Kalimantan and Mitsubishi's project to recreate a natural rain forest in Sarawak -- and to modest funding for reforestation, especially research at

⁴²Government of Japan, "Japan's Paper," pp.5-6.

⁴³For example, the Tokyo Metropolitan government announced in 1992 that it would reduce tropical timber use by 50 percent by 1995 and 70 percent by 1997. However, it is not mandatory and there are no implementing measures. Interview, JATAN, Tokyo, 26 May 1994.

⁴⁴Government of Japan, National Action Plan for Agenda 21 (Tokyo: The Government of Japan, January 1994), p.62, internal document supplied by an official at MITI.

Japanese universities.⁴⁵ But the new Environment Law, Keidanren's Environmental Charter, revised corporate environmental guidelines,⁴⁶ and new corporate environmental departments appear designed more to deflect environmental critics than to improve overseas environmental management.⁴⁷ During 1994 discussions, most government and business leaders ignored, disputed, or dismissed as irrelevant the environmental impact of wasteful consumption, low resource prices, unsustainable purchasing practices, import tariffs, and past environmental practices. There are also no signs of specific government measures to eliminate import charges on processed wood, introduce environmental surcharges, raise consumer prices, provide 'environmental reparation payments', regulate corporate purchasing practices and technology transfers, or ensure funds are ploughed into sustainable Southern timber operations. Instead, in the last few years, as timber prices increase and imports decrease,⁴⁸ the Japanese government and companies have

⁴⁵There are no plans to increase the scope of reforestation or conservation in Southeast Asia. Interviews at Mitsubishi, Sumitomo, Marubeni, Nissho Iwai, Itochu, and Keidanren, Tokyo, April to July, 1994.

⁴⁶According to a Keidanren survey, over 70 percent of Keidanren members now have internal structures to integrate environmental concerns. "Global attention turns to industry," The Japan Times, 12 June 1992, p.3.

⁴⁷Of course, some individuals at corporate environment departments are concerned, keen, and want to make a difference; but little change has occurred to corporate mentality or practices. Interview, Professor, University of Tokyo, 17 May 1994.

⁴⁸From 1991 to 1994, prices for tropical timber have risen while prices of other commodities have remained level or fallen slightly. The Economist, "Chainsaw massacres," 25 June 1994, p.39. However, since Japanese traders purchase timber with American

opportunistically announced policies to reduce tropical timber imports for 'environmental reasons'. But these trends are driven by less abundant tropical timber stocks and a shrinking Japanese plywood industry, not by greater concern for tropical forests.

JAPAN AND SOUTHEAST ASIAN TIMBER MANAGEMENT: RECOMMENDATIONS

It is tempting to remain in an analytical cocoon and predict -- based on the potent Northern and Southern political and economic forces driving deforestation -- the extinction of Southeast Asia's primary forests. Even though my analysis leaves little room for optimism, and despite the danger of sounding naive or ethnocentric, I feel compelled to provide some concrete recommendations to improve tropical timber management. These are preliminary suggestions, in no way provide a comprehensive solution, and are not presented in any order of priority, although trade reforms will certainly have more impact than changes to ODA. My hope is merely to spark constructive and relevant South-North discussions.

A. Reform Japanese Aid

JICA and the OECF should be more transparent and accountable.⁴⁹ The government should increase public access to ODA feasibility studies and project assessments, and provide Southern

dollars, the appreciation of the yen has largely offset these higher prices.

⁴⁹While I propose numerous reforms to Japanese aid -- in part because it is easier to find specific problems and specific solutions -- it is crucial not to overestimate the potential for aid to improve commercial timber management.

and Northern environmental groups and NGOs with more input into aid projects. JICA executives and field staff should also receive better environmental training and more experience in the South. As well, JICA and the OECF should cooperate more with other Northern donors and hire more foreign consultants, especially environmental experts. Japan should also accept responsibility for the final results of aid. Allowing or ignoring the 'disappearance' of large chunks of aid bolsters patron-client networks, undermines state capacity, and burdens Southern states with loans syphoned by private actors.

Japan should overhaul its environmental aid program. The Japanese government should develop a coherent definition of environmental aid, clear and binding environmental guidelines, and effective social and environmental impact assessments. As well, Japan should restructure the administration of environmental aid to improve distribution, implementation, and supervision. The Environment Agency should have more input while MITI and its corporate partners should be relegated to a peripheral role. Japan should also change the tenets of environmental aid. At present, the focus is on procuring 'environmental profits.' Considering Japan's role in driving over-logging and deforestation, Japan should lead a financial wave to support better timber management, rather than repeating historical patterns, sweeping profits back to Japan. Instead of environmental loans, Japan should increase the amount of grants, on the principle of returning past 'environmental profits'. The South needs compensation for the immediate and

residual environmental effects of unsustainable timber purchases, timber prices that have ignored social and environmental costs, and import tariffs that have syphoned revenue. Japanese 'environmental reparation payments' should target long-term, risky, low-profit forestry conservation -- particularly projects to preserve primary forests and regenerate natural forests. These payments should also be used to push Japanese companies to invest more in natural forest conservation and long-term reforestation, and transfer more technology and knowledge to improve Southern processing efficiency and silvicultural techniques.⁵⁰

B. Trade: Corporate Purchasing Practices

Trade can be reshaped and controlled to support sustainable timber management.⁵¹ Ideally, Japanese trading companies, processors, construction firms, government agencies, and the general public should only purchase timber from sustainable

⁵⁰Other authors have also recommended extensive reforms to Japanese aid to enhance tropical forestry management. See Forrest and Harago, "Japan's Official Development Assistance", pp.15-21.

⁵¹See Hilary F. French, "Reconciling Trade and the Environment," in State of the World: 1993 Worldwatch Institute (New York: W.W. Norton & Company, 1993), pp.158-179; and Edward B. Barbier, "Policy Issues and Options Concerning Linkages Between the Tropical Timber Trade and Sustainable Forest Management," The Economic Linkages Between the International Trade in Tropical Timber and the Sustainable Management of Tropical Forests, ITTO Activity (PCM(XI)/4), 14th Session of the International Tropical Timber Council in Kuala Lumpur, 12-13 May 1993. For an overview of the links between trade and tropical deforestation, see June D. Hall and Arthur J. Hanson, A New Kind of Sharing: Why We Can't Ignore Global Environmental Change (Ottawa: International Development Research Centre, 1992), chapter five, "Choices in the Harsh World of Trade," pp.116-150.

sources. Strict purchasing practices -- where timber from unsustainable sources has no market and timber from sustainable concessions receives reasonable prices -- can potentially dissolve, or at least weaken, patron-client ties based on timber (or, perhaps optimistically, force these informal 'partners' to reorganize and better manage their concessions). At the moment, there are no comprehensive criteria or effective tools to certify timber from sustainable sources. Japan should participate in international efforts to move in this direction. An international timber certification program has the potential to increase consumer prices, force companies to purchase sustainable timber, and boost Southern state capacity to enforce tougher regulations.⁵² While there are formidable political and technical obstacles -- including the endorsement of GATT, acceptable criteria for sustainable management, and South-North cooperation -- and although there is a definite danger that Southern and Northern political and corporate interests will hijack certification programs, effective certification would provide an important tool to regulate corporate, consumer, and state behaviour.⁵³

⁵²To help undercut patron-client networks in the South, international inspectors must work closely with Southern state officials who are trying to combat destructive and illegal loggers. While expensive, it is essential that international inspectors monitor check points, evaluate concession sites, and verify customs documents. Otherwise, certification will become an international stamp of approval for current mismanagement.

⁵³For background on timber certification, see Salahudin Yaacob et., al., Forest Stewardship Council (FSC) Malaysian Consultative Study, Malaysian FSC Consultative Study Working Group (Selangor Malaysia: WWF Malaysia, August 1993); Baharuddin Haji Ghazali and Markku Simula, Certification Schemes For All Timber and Timber

C. Trade: Import Restrictions

Another possible option to reshape trade is to impose unilateral restrictions on tropical timber imports. But import restrictions have severe drawbacks.⁵⁴ JATAN -- the most important Japanese NGO tackling tropical forestry issues -- is now pressing local Japanese governments, business organizations, construction firms, and trading companies to restrict timber purchases.⁵⁵ This strategy is flawed. Although import restrictions may temporarily reduce Southern logging rates, repressing demand, without compensation or higher prices, will undercut the economies of Southeast Asia, provide incentives to convert forests to more profitable functions,⁵⁶ encourage companies to extract higher volumes to offset lower prices, and leave even fewer funds for sustainable management.⁵⁷ Import bans could even increase

Products, Report for the ITTO (Yokohama: ITTO, 15 April 1994); and Barbier, "Policy Issues and Options," pp.22-26.

⁵⁴For a critique of complete trade bans, see Barbier, "Policy Issues and Options," pp.7-8. For selective bans, see Ibid., pp.9-10; quantitative restrictions, pp.10-11.

⁵⁵For a description of JATAN's approach, see JANNI, "Reshaping 'Development'," p.45 and Kuroda, "The Tropical Forest Crisis," pp.6-7. There is also a growing movement in Europe to ban or restrict tropical timber imports.

⁵⁶Former Indonesian Forestry Minister Harahap warned: If consumer countries "impose a boycott, the wood will have no economic value for us. We may turn the forests to things that are useful to us." "Jakarta may turn forests into farms over timber boycott," Straits Times, 14 October 1992, p.12.

⁵⁷Following similar reasoning, former Indonesian Minister of State For Population and Environment Emil Salim has criticized unilateral Northern moves to boycott tropical timber. Third World Network, "South-North development monitor," no. 2591, 24 April 1991, in World Rainforest Movement, The Endangered Rainforests and

management problems as prices fall and the demand short-fall is filled by domestic or other foreign consumers. Import restrictions also discriminate against Southeast Asian producers in favour of softwood exporters like Russia, Canada, New Zealand, and the United States.⁵⁸ The South will likely perceive unilateral Northern import bans as environmental imperialism,⁵⁹ reducing the capacity of the North to influence Southern forestry policies and practices. Even though there are clear problems with Southern state capacity to enforce regulations, and despite substantial evidence of straightforward corruption, it is still imperative to reach solutions through North-South cooperation and dialogue.⁶⁰

The Fight for Survival, volume 1 (Penan, Malaysia: World Rainforest Movement, 1992), p.520. In theory, selective import restrictions on timber produced from *unsustainable* sources and open markets for timber from *sustainable* sources could improve management in the South. But first it will be necessary to establish international sustainable management criteria and a means to certify sustainable timber.

⁵⁸Many Southern leaders are concerned that temperate timber exporters will use restrictions on tropical timber imports to increase their market share. For example, Sabah Timber Association president Datuk Andrew Tham argues that New Zealand has lobbied Japan to restrict tropical timber imports "in their attempt to boost their export of softwood." Quoted in Mark Kong, "Sabah, S'wak condemn NZ's timber boycott," The Star, 8 April 1992, p.6.

⁵⁹For example, the South reacted strongly to Austria's unilateral legislation to require labels -- such as 'sustainable forest management' -- on tropical timber imports. After harsh criticism, especially from Malaysia and Indonesia, Austria withdrew this proposal. See Jeffrey Ramayah, "Austria warned of likely ASEAN boycott," New Straits Times, 27 October 1992, p.7; "For the chop," The Economist, 30 January 1993, p.63; and "Malaysia's New Jungle War," Asiaweek, 10 February 1993, p.47.

⁶⁰See Hall and Hanson, A New Kind of Sharing, especially the conclusion, "The New Dialogue," pp.297-311. Southern log export restrictions are also not an effective tool to promote sustainable timber management. To increase economic benefits of timber exports

D. Trade: Purchases, Import Volumes, Prices, and Consumption

Japanese tropical timber consumption must not exceed sustainable yields of Southeast Asian producers. While a Japanese ban on tropical timber imports could quickly reduce consumption, a more constructive way to lower timber consumption is to internalize environmental and social costs into consumer prices.⁶¹ If prices are high enough, strong incentives can be created for 'conscientious consumption' and recycling. While public campaigns that explain the causes and effects of tropical deforestation, or pressure on construction and trading companies to treat tropical timber as a limited and valuable resource may help reshape wasteful consumption patterns, it is vital that consumer prices reflect

-- and presumably raise revenue and increase incentives for effective management -- the Philippines, Indonesia, Sabah, and to a lesser extent Sarawak, have all placed constraints on log exports and provided processing incentives. Even though this has created some jobs, there are severe problems: domestic processors are inefficient and waste wood; there are now far too many domestic processors -- often with close links to state patrons -- who firmly resist moves to lower log production to sustainable levels; and severing foreign demand has suppressed log prices. Despite these problems, however, dismantling export barriers could make the situation even worse as processors scramble to survive and loggers exploit new markets. For now, it is more productive to reshape Northern shadow ecologies and improve Southern enforcement and sustainable management.

⁶¹In 1990, tropical timber producers issued a joint call on the North to adjust timber prices "so that the costs of forest management and reforestation can be considered." Quoted in Third World Network, "South-North development monitor," no. 2591, 24 April 1991, in World Rainforest Movement, The Endangered Rainforest, p.521. But many Southeast Asian leaders are nervous that temperate wood will substitute for more expensive tropical timber. For this reason, many Southern managers insist that temperate and boreal timber also internalize environmental and social costs. Interviews, the Philippines, Sabah, Sarawak, Indonesia, and Peninsular Malaysia, January to March 1994.

these attitudes.⁶²

In theory, export prices that internalize environmental and social costs would increase Southern state revenues and foster sustainable management. But in Southeast Asia, clientelist states are too weak to collect timber royalties, control illegal loggers, or impede destructive concessionaires. Without first gaining control of particularistic, rent-seeking patron-client networks, higher export prices will create even stronger incentives to extract illegal logs or mine legal concessions as timber operators make even more money.⁶³ This presents a practical logjam. It is unreasonable to expect the South to strengthen state controls and implement sustainable policies without adequate funds. But it is equally unreasonable for the North to pay higher prices only to bolster greedy elites and fuel patron-client networks. To overcome this problem, Japan -- in conjunction with Southeast Asian exporters -- could create a sustainable management fund by imposing an environmental surcharge on Southeast Asian timber imports. This surcharge -- which should absorb processed wood import tariffs⁶⁴ --

⁶²Presumably, if consumer prices for products like *kon pane* reflected environmental and social costs then Japanese builders would either find cheaper substitutes or change their construction techniques.

⁶³This has occurred in the Philippines where higher log prices in the 1990s have stimulated illegal logging rather than better management. Interview, Senior official, ENR-SECAL Program, Department of Environment and Natural Resources, Manila, 3 February 1994.

⁶⁴Numerous Southern officials argue that the North should remove import barriers on processed tropical wood. Interviews, the Philippines, Sabah, Sarawak, Indonesia, and Peninsular Malaysia, January to March 1994.

could *partially* internalize environmental and social costs into consumer prices and still keep export prices at a moderate level. By placing higher surcharges on timber from primary forests, and lower surcharges on timber from secondary forests, Japan-Southeast Asian management teams could lower consumption of primary forest timber and maintain sustainable yields in secondary forests. This sustainable management fund could be used to support Southern conservation, protect primary forests, regenerate natural forests, manage sustainable logging, and bolster Southern state capacity to enforce regulations. Great care would be required to ensure that these funds were not syphoned by the Japanese state, Japanese corporations, Southern firms, or Southern patron-client networks.

Environmental import surcharges could also help control consumer prices. Prices must be high enough to reduce excessive consumption but not so high they *destroy* demand. Quite naturally, as timber prices rise, consumers will substitute other products -- like plastics, metals, and temperate timber. If consumption falls too far, timber concessions would lose economic value, state timber revenue would erode, and state and private managers would have fewer incentives to manage and regenerate secondary forests.⁶⁵ Using environmental import surcharges, prices could be manipulated to maintain sufficient demand for a viable commercial industry and maximize Southern revenue. A sustainable management fund is only a partial solution, and will involve considerable political

⁶⁵This point was emphasized by numerous Southeast Asian business and state officials during interviews, late January to late March, 1994.

cooperation and transaction costs. But until Southern states internalize environmental and social costs into timber prices, and until Southern timber operators strictly obey management policies, Northern import surcharges -- coupled with Northern environmental reparation payments -- are reasonable ways to offset some of the environmental costs of trade.⁶⁶

LESSONS FOR NORTH-SOUTH INTERACTION AND ENVIRONMENTAL MANAGEMENT

The inability of Southern clientelist states to impede destructive loggers, collect timber revenues, and enforce regulations, and the current and residual impact of Japan's ecological shadow of timber cast an ominous darkness over the forests of Southeast Asia. Other Northern shadow ecologies -- with patterns similar to Japan -- add to the pall over these forests.⁶⁷

⁶⁶In 1992, a World Bank report recommended that the North establish a one to two U.S. billion dollar a year fund -- separate from development aid -- to conserve biodiversity in primary rain forests. The report argues that rich states must compensate poorer tropical countries for sacrificing short-term economic gains and preserving global biodiversity. Summarized in Cherian George, "Rich nations urged to pay for preserving forests," Straits Times, 17 May 1992, p.4. Numerous Southern leaders -- including Malaysian Primary Industries Minister Datuk Seri Dr Lim Keng Yaik and former Sabah Chief Minister Pairin Kitingan -- support environmental premiums. Unlike my proposal, however, most Southern elites demand that proceeds are transferred to Southern managers with few strings attached. See A. Rachel, "Sustaining tropical timber," New Straits Times, 12 May 1993; "Lim: ITTO membership needs a look," and "M'sia seeks perks for timber products," The Star, 12 May 1993, p.3; and Third World Network, "South-North development monitor," no. 2591, 24 April 1991, in World Rainforest Movement, The Endangered Rainforest, p.519.

⁶⁷Comparative studies of the impact of Northern shadow ecologies on Southern resource management is an important area for future research.

Effective solutions to global deforestation will have to tackle powerful political forces in the South, and broad environmental effects of South-North interaction.⁶⁸ Extrapolating from an analysis of Japan's shadow ecology in Southeast Asia, it is clear that breaking South-North trade ties -- while perhaps temporarily slowing deforestation -- will entail long-term economic, social, and environmental costs. It is more productive to manipulate Northern shadow ecologies to ensure that sufficient profits are ploughed into forestry management. Aid, investment, and technology transfers must target sustainable timber operations. Northern consumers must use timber more efficiently and pay for the costs of sustainable management. Ideally, multinational companies should buy timber from sustainable sources and Northern governments should dismantle trade barriers to timber from sustainable concessions. To move in this direction, Northern states should cooperate with Southern producers to create international mechanisms to verify 'sustainable' timber.

Until sustainable timber can be certified, and until Southern states can enforce sustainable management policies and collect

⁶⁸The process of deforestation is exceedingly complicated. While Northern shadow ecologies and Southern clientelist states are critical factors driving deforestation, comprehensive solutions will also have to consider the impact of Southern debt, international financial organizations, land use rights, indigenous rights, federal-provincial relations, apathetic and uninformed political and bureaucratic leaders, the content of forestry and non-forestry policies (e.g. resettlement and exchange rate policies), population growth, poverty, and world attitudes that promote industrialization at all costs. Gillis and Repetto provide a valuable outline of possible Southern public policy reforms to improve tropical forest management, in Gillis and Repetto, "Conclusion: findings and policy implications," pp.396-407.

sufficient timber revenues, Northern states -- in cooperation with Southern producers -- should impose environmental surcharges on tropical timber imports to create sustainable management funds.⁶⁹ These environmental surcharges can help internalize some environmental and social costs into timber prices. Bilateral -- or perhaps multilateral -- South-North teams can use these funds to support sustainable Southern timber operators. Sustainable management funds are only a partial solution. The North must also provide environmental reparation payments. This money -- perhaps channelled as aid grants -- is essential to compensate for the residual and immediate effects of Northern shadow ecologies. The South cannot absorb the concomitant costs of deforestation -- including soil erosion, flooding, and rural poverty -- and still find sufficient funds for sustainable management.

Northern shadow ecologies must also be manipulated to push Southern states to tackle management problems. Aid, investment, and environmental funds must not fuel patron-client timber networks. Instead, South-North teams need to establish mechanisms to bypass patron-client networks and enhance Southern state capacity. Transforming Northern shadow ecologies and Southern clientelist states will require the North to sacrifice money, the South to sacrifice some sovereignty, extensive South-North dialogue, and a plethora of innovative international and domestic policies and structures. It will also require the international

⁶⁹There is a strong Southern argument for imposing similar environmental standards and surcharges on temperate and boreal timber.

community to confront Southern political forces driving deforestation. This may well be impractical in a world that jealously guards artificial borders, relentlessly pursues economic growth and higher consumption, and invariably protects powerful political patrons. If so, the world's primary rain forests will soon disappear.

ACRONYMS AND INDIGENOUS TERMS

ADB: Asian Development Bank.

Apkindo: [Asosiasi Panel Kayu Indonesia], Indonesian Wood Panel Association.

Berjaya: Bersatu Rakyat Jelata Sabah (political party).

BFD: Philippine Bureau of Forest Development.

BN: Malaysian Barisan Nasional (political party).

BULOG: Indonesian Agency for Rice Stabilization.

DAC: OECD Development Assistance Committee.

DENR: Philippine Department of Environment and Natural Resources.

DPR: Indonesian House of Representatives.

EIA: Environmental Impact Assessment.

ENR-SECAL: World Bank and OECF Environment and Natural Resources Sector Adjustment Loan for the Philippines.

EPA: Japanese Economic Planning Agency.

EXIM Bank of Japan: Export-Import Bank of Japan.

FAO: Food and Agriculture Organization.

Hankam: Indonesian Department of Defense.

ICETT: International Centre For Environmental Technology Transfer.

ITCI: International Timber Corporation of Indonesia.

ITTO: International Tropical Timber Organization.

JAS: Japanese Agricultural Standard.

JICA: Japanese International Cooperation Agency.

JLIA: Japanese Lumber Importers' Association.

JPMA: Japan Plywood Manufacturers' Association.

Keidanren: Japanese Federation of Economic Organizations.

Kon pane: disposable Japanese construction panels for moulding

concrete.

MDF: Medium Density Fibreboard.

MITI: Japanese Ministry of International Trade and Industry.

MNCs: Multinational Corporations.

MPR: Indonesian People's Consultative Assembly.

NFP: Philippine National Forestation Program.

NGOs: Nongovernmental Organizations.

Nippindo: a branch of Apkindo designed to import and market plywood in Japan.

NPA: Philippine Communist New People's Army.

ODA: Overseas Development Assistance.

OECD: Japanese Overseas Economic Cooperation Fund.

PBB: Parti Bumiputra Bersatu, the most powerful member in the current Sarawak Barisan Nasional coalition government.

PBDS: Parti Bangsa Dayak Sarawak (political party).

PBS: Parti Bersatu Sabah (political party).

Repelita: Indonesian Five Year Plans.

RETROF: Japanese Research Association for Reforestation of Tropical Forest.

RITE: Japanese Research Institute of Innovative Technology for the Earth.

SAFODA: Sabah Forestry Development Authority.

SKEPHI: Indonesian NGO Network for Tropical Forest Conservation.

SNAP: Sarawak National Party.

Sogo Shosha: Japanese Trading Company.

SSIA: Sabah Sawmillers Industries Association.

STIDC: Sarawak Timber Industry Development Corporation.

TLAs: Philippine Timber Licence Agreements.

TPI: Indonesian Selective Cutting System.

TPTI: Indonesian Selective Cutting and Replanting System.

USAID: U.S. Agency for International Development.

USNO: United Sabah National Organization (political party).

WALHI: Indonesian NGO Forum For the Environment.

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INTERVIEWS

From late January 1994 to the end of July 1994, I conducted more than 100 in-depth, open-ended, confidential interviews -- generally between 1 to 3 hours -- with government officials, business leaders, academics, private consultants (whose firms remain anonymous), and NGO representatives in the Philippines, the Malaysian states of Sabah and Sarawak, Peninsular Malaysia (Kuala Lumpur), Indonesia, Singapore, and Japan. I am indebted to numerous individuals at the following organizations.

A. INDONESIA

APKINDO [Asosiasi Panel Kayu Indonesia], Jakarta.

Asian Wetlands Bureau, Bogor.

Bogor Agricultural University, Faculty of Forestry, Kampus IPB Darmaga, Bogor.

Bogor Agricultural University, Environmental Research Centre, Kampus IPB Darmaga, Bogor.

Centre For International Forestry Research (CIFOR), Bogor.

Centre for Economic and Environmental Studies, Environmental Economics Studies Foundation, Jakarta.

Indonesian Eco-Labeling Program, Jakarta.

International Tropical Timber Organization (ITTO), Indonesia Office, Jakarta.

JICA, Indonesia Office, Jakarta.

Ministry of Forestry, Indonesia, PHPA (Forestry Conservation), Bogor.

Ministry of Forestry, Indonesia, Bureau of International Cooperation and Investment, Jakarta.

Ministry of Planning [BAPPENAS], Jakarta.

Ministry of Forestry, Indonesia, Forest Utilization, Jakarta.

Ministry of Forestry, Indonesia, Forest Protection and Nature Conservation, Jakarta.

PELANGI INDONESIA (Policy Research for Sustainable Development), Jakarta.

Rimbawan Muda Indonesia (RMI) [Indonesian Institute for Forestry and Environmental Research & Service], Bogor.

SKEPHI [NGO Network For Forest Conservation in Indonesia], Jakarta.

State Ministry for the Environment, Jakarta.

WALHI, (Indonesian Forum for the Environment), Jakarta.

B. JAPAN

Centre for Environmental Policy & Advocacy: Tokyo (CEPAT), Tokyo.

Environment Agency, Office of Overseas Environmental Cooperation, Tokyo.

Environment Agency, Global Environment Department, Tokyo.

EXIM Bank of Japan, Environment Section, Tokyo.

Friends of the Earth Japan, Tokyo.

International Development Centre of Japan, Tokyo.

International Tropical Timber Organization (ITTO), Yokohama.

Itochu Corporation, Department of Global Environment, Tokyo.

Japan Plywood Manufacturers' Association, Tokyo.

Japan Lumber Importers' Association, Tokyo.

Japan Plywood Inspection Corporation, Tokyo.

JATAN, [Japan Tropical Forest Action Network], Tokyo.

JICA, Forestry Cooperation Division, Forestry & Fisheries Development Cooperation Department, Tokyo.

JOFCA [Japan Overseas Forestry Consultants Association], Tokyo.

Keidanren, [Japan Federation of Economic Organizations], Global Environment Department, Tokyo.

Marubeni, Environmental Protection Department, Tokyo.

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MITI, Global Environment Division, Tokyo.

Mitsubishi Corporation, Environmental Affairs Department, Tokyo.

Nissho Iwai, Environment 21, Tokyo.

OECD, Environment and Social Development Division, Tokyo.

RETROF [Research Association For Reforestation of Tropical Forest], Tokyo.

Sumitomo Forestry Co. Ltd., Green Environmental R&D Division, Tokyo.

University of Tokyo, International Environmental Planning Centre (INTEP), Tokyo.

University of Tokyo, Faculty of Agriculture, Department of Forestry, Tokyo.

WWF [World Wide Fund For Nature] Japan, Tokyo.

C. PENINSULAR MALAYSIA

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Far Eastern Economic Review, Kuala Lumpur.

Malaysian Timber Industry Board, Ministry of Primary Industries, Kuala Lumpur.

Ministry of Primary Industries, Kuala Lumpur.

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DENR, ENR-SECAL Program (World Bank/DENR), Monitoring and

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DENR, Forest Management Bureau, Forest Economic Division, Quezon City.

International Rice Research Institute (IRRI), Los Banos, Laguna.

Philippine News and Features.

Philippine Institute for Development Studies (PIDS), Makati, Metro Manila.

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WWF Philippine Program, San Juan, Metro Manila.

E. SABAH, MALAYSIA

Consulate of Japan, Kota Kinabalu.

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Innoprise Corporation Sdn. Bhd., a subsidiary of Yayasan Sabah [Sabah Foundation], Kota Kinabalu.

Institute For Development Studies, Institut Kajian Pembangunan (Sabah), Kota Kinabalu.

Ministry of Tourism and Environmental Development (Sabah), Kota Kinabalu.

Rakyat Berjaya Sdn. Bhd., a subsidiary of Innoprise Corporation Sdn. Bhd., Kota Kinabalu.

Sabah Forestry Department [Jabatan Perhutanan Sabah], Regional Office, Kota Kinabalu.

Sabah Sawmillers Industries Association, Kota Kinabalu.

Sabah Re-afforestation Technical Development and Training Project, Kinarut.

Sabah Melale Wood Industries, Sdn. Bhd., Kota Kinabalu.

Sabah Forestry Development Authority (SAFODA), Kota Kinabalu.

Sabah State Library, [Perpustakaan Negeri Sabah], Kota Kinabalu.

Timber Association of Sabah (TAS), Kota Kinabalu.

WWF Malaysia, Sabah Office, Kota Kinabalu.

Yayasan Sabah [Sabah Foundation], Kota Kinabalu.

F. SARAWAK, MALAYSIA

JICA's Effective Wood Utilization research Project, Timber Research and Technical Training Centre, Kuching.

Sarawak Timber Association [Persatuan Kayu Kayan Sarawak], Kuching.

Sarawak Forest Department (various sections), Kuching.

Sarawak Timber Industry Development Corporation [Perbadanan Kemajuan Perusahaan Kayu Sarawak], Kuching.

Universiti Malaysia Sarawak, Kota Samarahan.