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Dear Peter,

Many Indonesians consider East Kalimantan their frontier, where the adventurous or desperate can take their chances, the shrewd make a fortune, and the foolhardy get lost in the wilderness, driven mad by mosquitoes and the fear of jungle ghosts. East Kalimantan is Indonesia's Alaska, if such a comparison can be made between the equator and the arctic. Vast forests, rivers, and swamps are being radically transformed by the work of timber and petroleum companies, wildfires and farmers.

Outsiders who come to Kalimantan usually arrive by plane. Before even smelling the air, we are treated to the Big Picture. Forests, forests, forests (and occasionally trees when we dip to avoid a cloud bank), meandering rivers, patchwork greens of swidden fields under cultivation and at all stages of returning to forest. Five years after the most extensive tropical fires in recorded history, burned-out areas are covered with new scrub, punctua ted by charcoal black or ash-white skeleton trees. Wide, bright brown lines of logging roads and thinner skid trails give way to oil wells joined by pipelines. Images of Kalimantan from the air stay clearly in our minds long after we land.

The new, machine-made lines on this visual map are often the only ones that show up in the plans and pep-talks of many Indonesian policy-makers. The land, water, and rich biology serve only as background for Development. Between the province's timber and petroleum industries, exploitation of East Kalimantan's natural resources brings Indonesia more foreign exchange than virtually anything else in the country. With an area of 211,440 square kilometers, East Kalimantan is larger than about half the nations of Europe, but at around 1.5 million, its human population is less than that of many "mid-size" American cities.

In many areas, old local populations are overwhelmed by immigrants. The ethnic complexity here rivals that of New York City or California. Many have come to cash in on Development, while some are desperately trying to cope with it. Many are doing a bit of both.

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I will be living in East Kalimantan for most of the next year, and in these letters hope to provide a glimpse of the range of environmental quality issues raised by economic and social changes in Borneo. I'll try to resist the urge to overgeneralize, although I've found generalizations are much easier here than the long boat trips and muddy treks necessary

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to gain a well-grounded sense of life beyond the city. In many cases, instead of taking a global view, I'll probably present something closer to the terrestrial jungle leech's perspective -- limited in scope, but able to hitch-hike along with those who move faster and cover a broader range.

In this first letter about Kalimantan, I don't write about the greatest do I write about environmental threats fo Borneo's rainforests, nor crises and Big Capital. I do not answer the question "Which does more damage to the forest, logging or shifting cultivation?" nor take you for a walk through the woods, pointing out the intricate relationships holding the species together. Instead, here are some notes from a recent trip to the village of Dilang Puti, the center of the Bentian Besar subdistrict on the Lawa River. This heartland of Bentian Dayak country is 400 kilometers, or about a 38 hour boat trip upriver from Bentian is known for the Samarinda, the capitol of East Kalimantan. high quality rattan that the Lawa River people cultivate as part of their agricultural cycle. Perhaps this letter, about one aspect of life in one not-too-extraordinary place, is an effort to start off gently, to provide a sense of the normality of life in the interior that underlies the flood of changes all around.

I took the opportunity to travel to Bentian a few weeks after arriving in Kalimantan in order to help with a project of the Forestry Research Institute in Samarinda, which is my institutional "host" in Indonesia. The project will document relationships between growing food by shifting cultivation and growing rattan as a cash crop. A key question is whether such a combination makes the entire system more or less stabile than practicing shifting cultivation by itself, and whether it provides a better living for cultivators than commercial plantations, the most commonly suggested alternative to the environmental degradation associated with shifting cultivation. I went to Bentian with Pak Amblani, a young agronomist on the staff of the Forestry Research Institute.



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Rattans are indigenous to most of the forests of Borneo. These palms of the Lipidocaryoideae subfamily are climbers with thin, flexible stems. Many species thrive in the bright sunlight and alluvial land of riversides and the red-yellow podsolic soils on the edges of Kalimantan's lowland clearings. The plants' hooked, whiplike tips reach just above the tree crowns, their thorny-barked stems often growing to lengths of over 100 meters, festooned on any available support. Of the 600-some species of rattan in the world, about 50 are collected for trade in Indonesia, but only a few of these are cultivated.

Rattans are much in demand for making baskets, mats, and "cane" furniture, and for lashing in traditional construction. They have been collected and sold in Borneo for centuries, and cultivated in parts of East and Central Kalimantan for over 100 years. Until the logging boom of the 1960s, rattans were the most lucrative products in much of this island, providing steady cash or barter goods to people living in or near the forests. Even today, in Kalimantan more people are probably involved in collecting, growing, processing, transporting, and trading rattan than are involved in the timber industries.

Over the past decade, with high international prices created by the demand for light, trendy furniture, the rush to gather large-diameter species of rattan only available in the wild has led to their near disappearance in many areas. But people who cultivate other species, including the finger-diameter rotan sega (in Indonesian; <u>Calamus caesius</u> in Latin) of Bentian enjoy a continuous supply of raw materials for their own use and a cash crop well-suited to an ecologically and economically sustainable system of long-rotation farming and gardening.

Since the mid-1970s, when botanist J. Dransfield began publishing an extensive series of works on Southeast Asian rattans, there has been a veritable explosion of research on all aspects of the thorny plants. Foresters, agronomists, anthropologists, and other ecologist-types have taken a keen interest in studying and promoting rattan cultivation as an "agro-forestry system." A couple of years ago, the Forestry Research Institute of Malaysia at Kepong set up a Rattan Information Center to collect and disseminate information worldwide. Both Malaysia and Indonesia have held national rattan conferences, and last year there was an international version in Thailand.

Most of the alternatives to Bornean-style shifting cultivation offered by governments in Indonesia and Malaysia involve dislocating local populations (mainly Dayaks) and massive investments in forest clearing, planting thousands of hectares at a time with new crops, and buying tons of chemicals to keep them growing. Schemes to plant crops such as oil palms, rubber, coffee, and cocoa for export have all worked this way, not to mention large-scale padi schemes and transmigration projects. While large-scale rattan plantations have been tried in some areas, the Bentian region and neighboring areas have built their reputations for growing rattan on customary lands, as part of a traditional way of life oriented mainly toward growing food, and requiring no fancy tools and no expensive chemicals.

One of the best things about growing rattan is that it does just fine in the company of other plants. In fact, rattan needs the support of trees -- of a forest -- in order to grow to marketable lengths and JHM-11

thicknesses. Foresters, perhaps reacting to the number of ecological studies calling their bluff on "sustained yield" logging, have become interested in rattan as a way for people and governments to make money from the tropical forest without des 'oying it. The combination of rattan growing and hill-padi farming may even make shifting cultivation -- within clearly defined limits -- acceptable to the foresters and plantation-crop-advocates who normally condemn shifting cultivation almost as an article of faith.

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I first read about the Lawa River and the village of Dilang Puti in the Norwegian naturalist Carl Bock's travellogue about his 1879 journey to the area, provocatively entitled <u>The Headhunters of Borneo</u>. He noted a "miserable settlement" at the confluence of the Lawa and Pahu Rivers (a town now known as Lambing) "where two Malay traders had collected a great quantity of rattan on rafts." Dilang Puti,which he called Long Puti, he described as "the largest and neatest Dyak village I had yet seen" with over 1800 inhabitants. (He did not mention what kind of rattan was on the rafts, or whether it had been collected from the jungle or cultivated.)

According to the current Village Head, Dilang Puti moved to a new site since Bock's time. The new village site, now 3 generations old, is still "neat," although residents live in individual family houses rather than traditional Dayak lamin, or longhouses. A magnet in the area, Dilang Puti has a new junior high school, 2 evangelical Protestant churches, and a police post. The population is considerably lower now (around 1150) than a century ago, like several other areas of the This may explain how Dilang Puti's residents in recent Lawa River. times have been able to satisfy most of their food needs by farming only land that had been cleared by their parents, grandparents, or great grandparents, rather than needing to clear any new primary forest themselves. Each family (on average, 5 or 6 people) clears no more than 2 or 3 hectares of secondary forest, or <u>belukar</u>, every year or two years to grow padi, and later rattan. There appears to be plenty of land within the 53,300 hectares officially inside the village limits to sustain such forming for a long time to come.

In Dilang Puti, the amount of land devoted to rattan plantings in regenerating forest has been increasing rapidly over the past few years. Virtually all families grow some rattan, except for some of the government employees there on temporary assignments. But few farmers have needed to return to their rattan gardens and use them for new rice fields, recently. It's not clear whether people will prefer to go further afield to grow rice in the future, when all the old <u>ladang</u> near the village center have been converted to rattan gardens, or whether they will make a final harvest in the nearby gardens and re-use the land to grow padi again.

In trying to figure out how rattan fits into life in Dilang Puti, Pak Amblani and I spent a lot of time following villagers to their fields and rattan gardens, and listening to explanations of what's where, how it got there, and why. On a future trip, we're planning to map the uses of agricultural and forest land around the village, as people living there indicate them. This may show how land uses are changing as rattan gardens have expanded, and 3 timber companies have begun to log concessions and build roads within a day's walk of the village center. It may also help document recognized land uses and claims, which could be useful in the future if the village is challenged by plans that would require using any portion of its customary land for a new timber concession, for example, or a transmigration project, or a commercial plantation.

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Some of the most successful rattan growers in the village are Pak Miyus and Bu Nodung, who have been married, making <u>ladang</u>, and planting rattan for over 20 years. Their current <u>ladang</u> is an hour and 10 minutes' brisk walk to the eastern edge of the land being cultivated by people from Dilang Puti, about 4 kilometers from the village center. When we visited, in late December, the padi was safely in the ground and the rains had begun on time. Pak Miyus was harvesting rattan most mornings and carrying it back to the village in the late afternoons. Many nights, to guard the <u>ladang</u> and avoid the walk to and from the village, Bu Nodung stayed in the field shelter. She had the company of her dogs, cats, pigs, and chickens, and enjoyed the crystal-clear water of a spring beside the field, rather than the silty river in the village.



Clear spring by <u>ladang</u> with bamboo bridge across it

Bu Nodung

To get to their field, we walked through <u>belukar</u> in all stages. In some areas, the trunks of <u>meranti</u> and fruit trees already towered far above the recently-dominant scrub, supported by the graceful ridges of developing buttress roots. Thick growth of lianas -- and rattan -linked the lanky trees and complex understorey in an intricate, shady web. In other sections, our heads were scorched by the sun, <u>alang-alang</u> grass bordered the path, and two-year-old bushes had only just begun to cover the remains of pineapple and chili pepper plants left over from the borders of recently vacated <u>ladang</u>. Landmarks along

the way included 5 streams, each spanned by some kind of improvised but serviceable bridge, and a giant, grey-barked <u>benggeris</u> tree that hosts up to 50 or 60 bees nests in season. Huge quantities of honey and wax are harvested from it by nimble men brave enough to risk stings and a 40-meter fall on a moonless night.



Pak Miyus and Tangkis, a 22-year-old farmer accompanying us, kept up a running commentary as we walked, swatting at vegetation straying into the trail with their long knives, hilts beautifully carved, essential accessories to any walk in the forest. They explained that they consider <u>rotan</u> <u>sega</u> a "lazy crop." And because the market has been steady or rising



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planting it is a way of balancing off possible failure of <u>ladang</u> crops. "You plant it, it grows, you cut it and get a million rupiah!" (about US \$600). Listening to them, the process sounds deceptively simple. In fact, each step is complex and requires a good deal of foresight and planning.

The light in the forest dimmed as the path entered a thicket of thorny growth on either side and overhead, supported by a framework of purposefully bent saplings. A rattan garden. "Mine," said Pak Miyus, proudly. "Six years old." I'm impressed, noting the healthy growth of "pioneer" trees supporting the rattan wrapped about them and hanging down, thorns threatening. Looking at the ground, I recognized a large number of spindly, shiny-leafed plants about knee-height. "<u>Meranti</u>," points Pak Miyus, indicating these young shade-demanding trees that may eventually dominate this patch of forest, given 40 to 60 years. (The <u>meranti</u> shoots only begin to reappear in <u>belukar</u> after several years of fallow, when there is enough other vegetation to protect them from the sun and allow the soil microorganisms they depend on to reestablish themselves.)



Tangkis under the rattan



Fish trap crossing stream is made of bamboo and held together with rattan

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Grasping a stem that had fallen into the path, Tangkis checked its thickness by looking at a segment from which the spikey outer bark had fallen away. The smooth stem gleamed green underneath. Pak Miyus explained that the garden had been planted with 2-leaf shoots just after the field's first padi crop sprouted, 6 years ago. The field was about a hectare-and-a-half (just under 4 acres). Many of the most successful rattan gardeners prefer to plant shoots instead of seeds, although shoots are more work. Shoots give the garden a year's headstart on seeds, and many seeds planted fail to germinate. The trick is finding enough 2-leaf shoots to plant an entire field, up to 200 plants per hectare. It helps to have several hectares of mature gardens acting as shoot nurseries.

In many areas, rattan seeds or shoots are planted only after a <u>ladang</u> has been harvested and allowed to go fallow. But in Dilang Puti, the rattan plantsare considered almost as important as the padi, and in no way an after-thought. Bu Nodung and Pak Miyus watch their plants carefully before moving to a new field. Young rattan plants may be destroyed by fungus, beetles, and grubs. While no one in Dilang Puti



Checking a rattan stem with the outer bark peeling off

uses any pesticides on their rattan, a few people have tried commercial insecticides and rodenticides on their padi. The word is still out on whether they consider these worthwhile.

If Pak Miyus and Bu Nodung harvest their 6-year-old garden next year, the first year when the rattan would be mature enough to sell, they would expect to get a ton to a ton and a half dry weight, or about a ton per hectare. (Dry weight is only 40 to 65 percent of the weight of rattan when it is just cut.) If they can wait another 4 years, the yield will be about double that amount, with a good stock of seeds and new shoots to ensure future harvests and for planting in new gardens. According to a consensus of people we spoke with in Dilang Puti, the best rattan gardens are over 15 years old, and can be harvested every couple of years with increasing yields for 10 or 15 years more. Few people in Dilang Puti, however, know much about gardens over 20 vears old. (In some commercial rotan sega gardens elsewhere in Kalimantan, planters report getting 2 tons of dry rattan per hectare only 8 years after planting shoots, and 3 to 4 tons every couple of years thereafter. However, in these plantations, growing food as well as rattan is not a consideration.)

Harvesting rattan belies its description as a "lazy crop." Cutting rattan must rank among the most strenuous and unpleasant tasks in Dilang Puti's range of hard work. The spikes and hooks often catch even the most careful harvesters, who must also bundle the rattan to the village on their backs.

It takes about 20 person-days of work to harvest a ton of rattan from a typical garden in Dilang Puti. One, two, or three people find a promising plant, and together pull the stem as far as it will come out of the treetops. The length is whacked down, often leaving a fair portion of the plant to die above. Although the heaviest pulling tends to fall to the men, women also do a good share of the harvesting, and at least as much lugging canes back to the village as men. Cutters rub the stems against a tree trunk to remove the thorny bark, then cut estimated lengths of 3 to 6 meters. They tie the stems in bundles of as much as 20 or 30 kilograms, and carry them back to the village. The paths around Dilang Puti's forests, fields, and gardens are in great shape for walking empty-handed, but the heavy, bulky loads explained why everyone we walked with could show us exactly the halfway point between their houses and their fields or gardens!

The initial processing of rattan is fairly simple. Most rattan growing families remove the inner skin from the rattan canes themselves, but some sell their harvests "raw" to local traders, who pay women and sometimes children to clean the rattan on a piecework basis. This is one of the few paid labor opportunities for women in Dilang Puti, and many earn up to Rp. 4000 per day (about US \$2.50). They supply their own tools; the ones I saw that worked best were the metal mouthes of old Thermos bottles, the round "blade" removing the rattan skin smartly, while protecting fingers from cuts.

The skinned rattan is dried in the sun on wooden racks for a day, then fumigated with sulfuric acid vapor under plastic sheets or leaf covers. Pans of burning charcoal mixed with sulphur are placed under piles of rattan, creating "acid rain" that kills or drives away bugs and prevents the canes from mildewing. People in Dilang Puti also believe the sulphur helps keep the cane supple and shiny as it ages. Drying and fumigated are repeated 2 or 3 times, the entire process usually taking a week if there is enough sun.

We pieced together details of Dilang Puti's rattan trade by talking with farmers and several entrepreneurs in the village who buy their neighbors' rattan and transport it downstream to Lambing for sale. Most of them use dugout canoes, called <u>ketinting</u>, with simple outboard motors; they can carry about a ton at a time. Three traders on the Lawa River as far upstream as Dilang Puti have large, 12-meter boats that can carry 2 tons. But none of these vessels are much use during the dry season, when the river level falls too low for even the small <u>ketinting</u> to pass downstream with a full cargo. The most significant bottleneck in the village's rattan trade, according to virtually everyone we asked, is transporting the cane to Lambing.

During the dry season, a few Dilang Puti traders have been able to rent space on logging vehicles at the P.T. Kalhold Utama logging concession, across the Lawa River from the village, to transport large loads of rattan to the Kalhold company jetty on the Pahu River, upstream Traders must then contract with a cargo boat from the from Lambing. jetty to Lambing, since the larger "ships" that carry rattan to Samarinda, the destination of most of the rattan originating in the Lawa area, will not stop to load at the jetty. This whole procedure is expensive, and leaves Dilang Puti's dry season cash economy at the mercy of decisions and whims of timber company managers, with whom Dilang Puti has an up-and-down relationship. Dilang Puti's Village Head seems to be asking the camp managers for favors. always Nost managers at Kalhold, which is associated with the Georgia Pacific Group in Indonesia, recognize that with resources no one else in the vicinity can match, including the government, they nave a kind of "moral" obligation to help local people out -- if it's no skin off their backs.

Prices for rattan in Dilang Puti have been rising steadily over the past few years. The trader in the village who does the most business, Pak Bonsa (a nephew of Pak Miyus) currently pays Rp. 500 per kilogram for "raw" 3-meter rotan sega, and Rp. 600 per kilo for more valuable 6-meter lengths. For dry rattan, he pays Rp. 1250 and Rp. 1400 for 3- and 6-meter lengths, respectively. If a grower can sell him a whole ton at a time, dry and fumigated, he may pay up to Rp. 2000 per kilo, but this is rare. Many people selling to Pak Bonsa find that it's not worthwhile to clean and dry their rattan themselves, because of the weight loss in drying. That's fine with Pak Bonsa, because he generally has better control over quality if he and his family also take care of the processing.

They grade the rattan according to length, diameter, and quality. Pak Bonsa's trading partner in Lambing, Haji Erhad, gives him the highest going rates for his goods, about Rp. 2500 per kilo (or Rp. 2.5 million per ton) because he can provide a consistent quality. Listening to Pak Bonsa quoting these figures, I gasped at his apparent profit margin, until he began rattling off his expenses. Everything, but especially gasoline for the outboard engines, is costly this far upriver. Pak Bonsa's net profit is 5 to 10 percent if he goes by water, less if he has to pay for the timber company truck and a chartered boat during the dry season. Yet, the rattan trade has made him rich by



Rattan diameter measure is millimeter scale. Most <u>rotan sega</u> is 5 mm to 11 mm.

Dilang Puti standards. His house is built all of ironwood, the only material that resists the ravages of Borneo's white ants. Other traders are not so lucky. Those who lose their shirts may pay off their debts by cutting a rattan garden early, if they have one to cut, or selling their outboard motor and boat.

Virtually all of the trading boats on the Pahu River-to-Samarinda run return dowstream with large loads of rattan, as much as 25 tons per trip. Riverboat traders and crews know rattan prices all up and down the routes they ply, but most prefer relying on connections that can provide a regular supply of guaranteed quality, rather than always being on the lookout for new sellers willing to take lower prices.

Once the rattan gets to Samarinda, the market is taken over by big exporters, a dozen-or-so ethnic Chinese families with histories of doing business in Borneo's interior, and with connections in Hong Kong, Taiwan, and Singapore, the major destinations for Indonesia's rattan exports.

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Until recently, the Indonesian government kept a "hands off" policy when it came to making rules for rattan. With the implementation of Indonesia's forest concession laws in the late 1960s and early 1970s, rules were also included that could be used to control who could take rattan from the forests, but in general these regulations were ignored until valuable wild rattan species began disappearing in some areas, and official interest grew in cultivated rattan elsewhere.

In 1979, Indonesia outlawed exports of completely unprocessed rattan. This was done in the same spirit as the ban on unprocessed log exports imposed a couple of years later -- an effort to create jobs in processing industries and capture the "value added" to the exports by doing the work within the country. In 1986, the government went a few steps further. Indonesia plans to ban the export of all but finished, readyto-use rattan goods beginning in 1989. In the meantime, the government has imposed a 30 percent tax on even the semi-processed rattan that makes up the bulk of the country's current exports.

1979 was also Indonesia's peak rattan export year. Almost 104,000 tons were sent abroad. Government and industry figures put Indonesia's 1985 rattan production at between 137,000 and 155,000 tons, mainly originating from Sumatra and Kalimantan. Some 89,000 tons were exported, worth over US \$97 million. (The consensus here is that these figures underestimate the actual trade in Indonesian rattan, since much of the domestic market remains in the "informal sector," and "cane pirates" avoiding increased government regulations and taxes have kept shipments of rattan off the books.)

Despite the 30 percent tax on semi-processed rattan, foreign buyers are now stockpiling all they can get, an ticipating that their supplies will be cut off completely with the ban on Indonesian exports next year. There are few alternatives. Indonesian exports currently account for between 80 and 90 percent of international trade in raw and semiprocessed rattan. (The Philippines imposed an export ban similar to the Indonesian plan a few years ago.) And the non-tropical importing countries can't grow rattan themselves. Because of the current foreign stockpiling, Indonesians trying to start or upgrade their furnituremaking factories are having trouble getting enough export-quality raw materials.

When Indonesia banned exports of unprocessed logs in 1981, the economics of transportation dictated that processing facilities be located as close to the log sources as possible. In East Kalimantan, that meant on the lower Mahakam River, near Samarinda, the furthest upriver point where ocean-going freighters can load. An abundant, relatively cheap, and unskilled work force was available locally, largely young women, including many Javanese immigrants or immigrants' children. But the rattan industry is a different situation.

Initially, most people in Kalimantan who had an interest in rattan greeted the announcement of the ban with enthusiasm, looking forward to the jobs the ban was supposed to create. Then the government announced that the only places being designated as rattan processing centers were outside Kalimantan, mainly Jakarta and Surabaya, in Java! The reasons given made some sense, but not enough, as far as most people here are concerned. Java has the modern container ports, to be sure, but people in Kalimantan resent losing a potential new industry because of Java's extremely low wages. The new rattan furniture industries are expected to be highly automated, compared with traditional Indonesian production methods, and the workers hired will be largely unskilled. The government hopes new rattan furniture industries will create over 150,000 new jobs in Java (some estimates are up to 250,000 jobs) and boost export values of rattan goods to US \$500 million per year, all with capital investments -- to be raised locally -- of less than US \$600,000 for a factory employing 400 to 500 people.

Many rattan growers in Dilang Puti are vaguely aware that next year's ban may lower the prices they get for their harvests, especially if the rattan industries in Java are slow in getting the anticipated



Rattan furniture maker in Samarinda Small workshops like this one will probably not benefit from the export ban, which is aimed at developing large-scale industries.

orders. But growers are not yet particularly concerned. If the price dips too low, they may harvest more, early. Or they may wait until it rises again, with a harvest that much greater a few years down the line!

The government is developing other regulations that could affect people in Dilang Puti and other rattan growing and collecting areas more The Forestry Department is trying to encourage rattan cultidirectly. vation as part of plans to rehabilitate seriously degraded forest lands, such as those burned in the 1982-1983 fires, or as a way to "recycle" abandon_ed rubber gardens. To stimulate investment in commercial rattan plantations, the Forestry Department intends to guarantee harvesting and land management rights to rattan planters. The Department also wants to limit gathering rights for wild rattan as a step in conserving types at risk of being exhausted in certain areas. This sounds very sensible. But the options proposed, which would work much like Indonesia's timber concession system, could actually usurp the rights of people like those in Dilang Puti, rather than protecting them.

The potential difficulty arises in part from definitions. Current national land laws do not recognize Dilang Puti's rattan gardens as "property." Bentian Dayaks growing rattan consider it a crop. But the government considers it a "non-timber forest product," subject to forest regulations rather than the broader agrarian laws. There is some question as to whether any new concession-oriented regulations would consider Bentian-type rattan gardens "property," as they are under local <u>adat</u>, or customary law, or whether the entire area could be opened up to outsiders for rattan plantation or collecting concessions! Will the new system automatically recognize land rights conferred by the presence of rattan gardens, as they are recognized in <u>adat</u>, or as they are for fruit trees still producing in an old <u>ladang</u>? (Fruit trees are generally subject to agrarian law rather than forest law.)

Many timber concessions in Kalimantan include land that villages claim under adat, if not in actual felling areas, in areas affected by roads or other facilities. Is it possible that the new rattan plantation or collecting concessions could also include such land? Or, if so, will groups like village cooperatives get first dibs on them? Right now, the regulations are envisioned to refer specifically to severely degraded land. But in some people's eyes, much of the land that has ever been affected by shifting cultivation could be defined as degraded...

It is possible, on the other hand, that for the first time, the new regulations may finally recognize rattan gardens in areas like Dilang Puti as property, and a legitimate way of using the land. As such the regulations may actually provide a greater measure of land tenure security than ever before for these shifting cultivators-cum-rattan-gardeners. If the government is seriously considering "stabilizing" shifting cultivators' land use, developing rattan cultivation regulations that protect the rights or <u>All</u> cultivators, especially those working their own customary land, may be the smartest thing the Forestry Department can do.

Sincerely yours, Judith Mayer



Young rattan plant growing amidst padi.

Background on Rattan in Borneo:

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At a field house, or <u>pondok</u>, in a Dilang Puti <u>ladang</u>. Received in Hanover 2/22/88