The Green Tigers

Which Southeast Asian Companies Will Prosper in the New Age of Forest Conservation?

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By Glenn Hurowitz

Southeast Asia's economies are roaring. The rise of the so-called "Asian tiger" economies has been one of the most profound developments in global business over the past half-century. But even as the region grows, the manner of its growth is imperiling its future prosperity. Too much of Asia's growth has relied upon deforestation and pollution.

Instead of pursuing lasting development, many countries and companies in the region have favored "spreadsheet development" that prioritizes goosing national gross domestic product numbers at the expense of making a positive impact on the communities where it occurs. Southeast Asia is by no means unique in pursuing this model, but it is possibly the place where it is followed most energetically—and with the most visible consequences. Too many companies are still putting the region's environment and economy at risk through continued deforestation and other irresponsible practices.

But some countries and companies are choosing a different path. They are adapting to the revolutionized global market by evolving to ensure that their growth does not come at the expense of forests. These are the Green Tigers – and they are set to roar for decades to come.

There is great urgency behind this corporate evolution: Deforestation for palm oil and paper plantations has turned the region into a tinderbox. Out-of-control forest fires, many set deliberately to facilitate land clearing in Sumatra and elsewhere, have sent a toxic haze spewing into the skies of Singapore, Malaysia, and much of the Indonesian Archipelago. The haze has been so bad that

Photo at left:
Sumatran tiger

hundreds of schools have been shut, businesses have had to close, children have been told to stay inside, and airline flights have been canceled—taking a financial toll in the billions of dollars.[1] This economic damage has not been confined just to the region; it has taken a global toll. Just one week of fires, from June 17 to 25, 2013, produced more than 170 million tons of climate pollution—equal to more than an entire year's worth of emissions from the United States' largest coal-burning utility, Southern Company.[2] But whether by burning or by bulldozer, deforestation and peatland clearance release billions of tons of greenhouse gases into the atmosphere—more than the amount produced by the entire global transportation sector and second only to the energy sector.[3]

Eighty activists rally outside Kellogg's headquarters in November 2013 to call on the company to urge its joint venture partner Wilmar to adopt a No Deforestation policy.

But in Southeast Asia, protecting forests has recently taken on much more immediate economic stakes. Increasingly, companies' access to global markets is dependent on responsible environmental behavior. And this is especially true for Southeast Asia's large palm oil and pulp and paper sectors, which have been the focus of intense international efforts to eliminate deforestation. Companies found to have deforestation in their supply chains not only become the targets of environmental and human rights campaigns, but also risk violating their customers and financiers' sustainable-sourcing standards. These requirements are rapidly tightening, and they threaten the viability of the deforestation business model that until recently characterized the Southeast Asian agriculture and forestry industries. In contrast, those companies that are working aggressively to protect forests and reduce their overall environmental footprint are enjoying dramatically improved market access—with strong prospects for continued international growth. This report ranks palm oil companies on their adherence to forest conservation requirements—showing which companies are slated to prosper in the new era of forest protection.

What's Changed?

Recent years have seen an explosion of demand for raw materials that can be produced without driving deforestation or causing other environmental damage. International civil society campaigns for tropical rainforests as well as tightening regulatory requirements have rapidly shifted the market landscape for Southeast Asian producers.

In response, since November 2013, some of the world's largest consumer companies and commodity traders have adopted deforestation-free sourcing policies. The Singapore-based agribusiness giant Wilmar International—which is Asia's largest agribusiness company and controls 45 percent of the global palm oil trade—led the way, with its groundbreaking "No Deforestation, No Peat, No Exploitation" policy, announced in cooperation with Climate Advisers, The Forest Trust and Unilever on December 5, 2013.[4] Under this policy, which was effective immediately, Wilmar agreed to buy from only companies that are not engaged in deforestation, peat destruction, or the abuse of human and workers' rights. The policy applies both to Wilmar's own plantations and its third-party suppliers and joint ventures. Crucially, the policy protects High Carbon Stock forests,[5] which are defined as any forests older than 10 years, while leaving grassland and young scrub available for development. It includes provisions to ensure respect for local community rights, and it prohibits the use of hazardous pesticides, including those banned by the Rotterdam Convention and paraquat.

Wilmar's policy applies to all the commodities it trades, and is having global repercussions from Southeast Asia to West Africa to the Amazon. In addition to its leading position in palm oil, Wilmar is China's biggest soybean importer, and it has made a number of acquisitions in the sugar industry that have positioned it to become the world's largest sugar company.

> Just one week of fires from June 17-25, 2013 produced more than 170 million tons of climate pollution–more than an entire year's worth of emissions from the United States' largest coal-burning utility, Southern Company.

In palm oil, the impact is most profound. More than 80 percent of palm oil growers supply Wilmar, meaning that its sourcing requirements effectively apply to almost the entire industry.

Although the implementation of the policy is a big challenge—in palm oil alone, Wilmar has more than 400 suppliers—there is evidence that it is already driving change on the ground. The company has aggressively educated its suppliers about the new policy and has offered implementation assistance. It has also sent a strong signal that serious violations will not be tolerated by curtailing purchases from several significant suppliers that have continued to destroy forests or abuse human rights. Still, it is clear that challenges remain. Nongovernmental organizations such as Greenomics, have identified companies engaged in deforestation that—for the time being—continue to supply Wilmar while the company engages with them (examples include Bumitama, which is affiliated with the IOI Group; and Kencana Agri, which is partly owned by Wilmar). However, the four quarterly implementation reports issued by Wilmar and the Forest Trust (TFT) have reported substantial implementation progress.[6]

The Wilmar model is spreading rapidly. Since the Wilmar announcement, Golden Agri-Resources has extended its own forest conservation policy to include third-party suppliers (the company had previously implemented a pioneering forest policy for its own plantations in response to a campaign by Greenpeace and pressure from customers and financiers). In May 2014, Archer Daniels Midland announced its endorsement of Wilmar's policy. In July 2014, Cargill announced a No Deforestation, No Peat, No Exploitation policy for palm oil that largely follows the outlines set out by Wilmar. In September 2014, at the UN Climate Summit in New York, Cargill committed to extend this policy to all commodities in its global supply chain, such as cattle, soy, sugar, cacao and more. Since then, more and more traders have jumped on board. Between October and December 2014, Bunge, IOI Loders Croklaan, and Musim Mas all announced their own zero-deforestation policies for their palm oil supply chains.

In short, in the past year, global traders controlling 96 percent of the world's commercial supply of palm oil have committed to No Deforestation, No Peat, No Exploitation policies. What's more, since the Wilmar policy was announced, more than a dozen leading consumer companies have adopted their own No Deforestation policies, and many are aggressively pressing their suppliers to change or risk being dropped. Kellogg's, Nestle, Mars, Johnson & Johnson, Hershey's, Unilever, Safeway, General Mills and others have all adopted zero-deforestation sourcing requirements with near-term compliance deadlines, usually by the end of 2015.

Some Palm Oil Policy	Tim Hortons			
RSPO Members	Alleince Boots Barilla Beiersdorf	Henkel Kao Lion (Japan)	Lotus Bakeries Waitrose Woolworths	
> 75% CSPO Palm use	Carrefour (private label only) Grupo Bimbo	Henkel Kraft (weak) Marks & Spencer	Royal Ahold SC Johnson & Son Sainsbury's	Tesco Walmart (private label only)
Deforestation Free Commitment: some gaps (usually delayed timeline)	Cérélia PZ Cussons Danone IOI Group	L'Oreal P&G Delhaize	Unilever Reckitt Benckiser Orkla	Florin Colgate-Palmolive Bunge
Deforestation Free Commitment	Wilmar GAR Cargill Dunkin' Brands	Kellogg Krispy Kreme Mars Nestlé	Hershey's Safeway Mondelez General Mills	Johnson & Johnson ConAgra PepsiCo

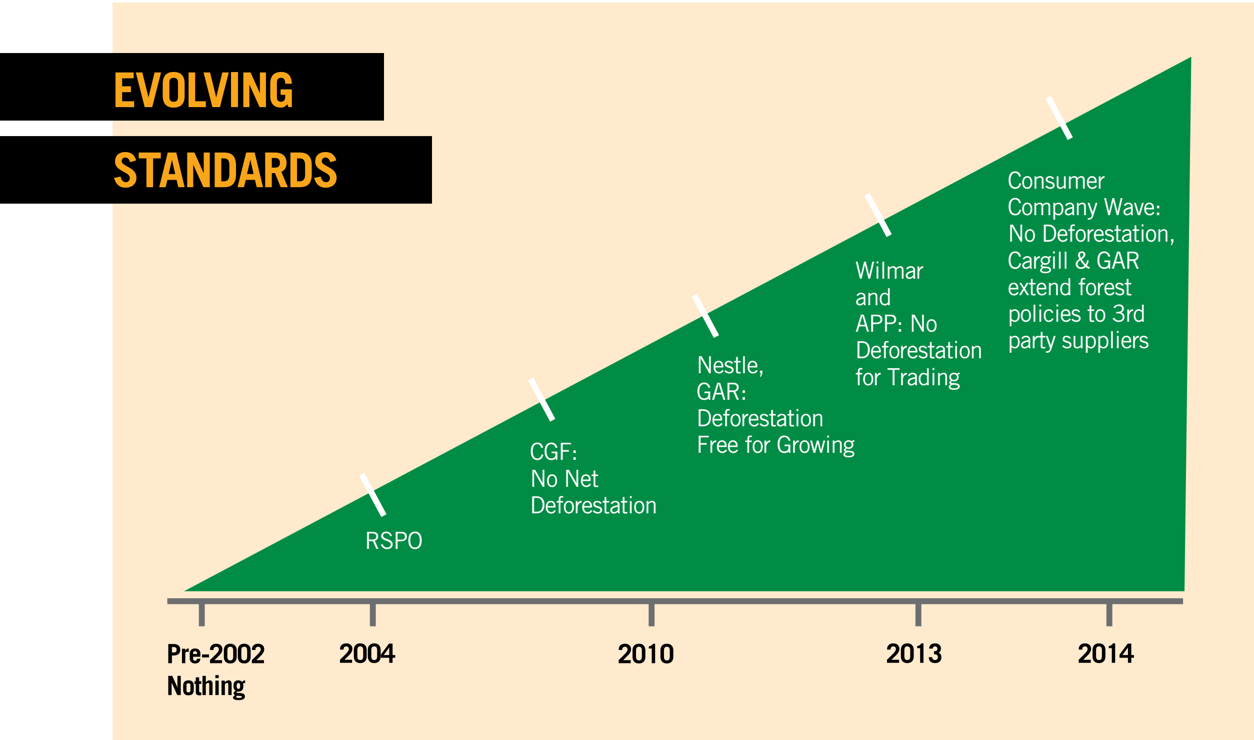


Photo at right: Palm oil plantation in Sabah, Malaysian Borneo.

For growers of palm oil, pulp and paper, sugar, soy and other commodities, the writing is on the wall: they will face a huge market access barrier if they have engaged in recent deforestation, peatland conversion, or the abuse of human rights. They simply will not be able to sell their commodities to some of the world's largest agricultural traders and biggest consumer companies.

Many of these producers are responding with rapid changes, and are taking steps to guarantee market access for the long run.[7] But many other Southeast Asian producers continue to conduct business as usual. As such, they are jeopardizing their own—and potentially their whole industry's—ability to gain access to the world's most prestigious companies and its highest value-added markets. Even as parts of Southeast Asia emerge from the shadow of a colonial economic model of raw material export, the deforestation laggards are preventing their countries' agricultural sectors from accessing high value markets, which purchase commodity-derived products higher up the value chain. Limits on market access threaten to send them back even further.

> Even as parts of Asia emerge from the shadow of a colonial economic model, the deforestation laggards are preventing their countries' agricultural sectors from accessing high-value markets.

Starting on page 15, this report looks at which companies are still trying to sell embracing the old model—and which are responding to the new market environment.

Due Diligence Comes to Asia

One of the notable things about this developing phenomenon is that traditional corporate responses to civil society campaigns are not working; the momentum and power of the movements and companies pushing responsible supply chains is too great. In particular, the palm oil industry has relied for more than a decade on standards set by an industry association known as the Roundtable on Sustainable Palm Oil (RSPO). Consumer companies would commit to use only RSPO-certified palm oil, and some banks made membership in RSPO a precondition for investment. However, there are serious loopholes in RSPO's standards; in addition to governance problems and slow adjudication of complaints, RSPO allowed companies engaged in the destruction of so-called secondary forests and ultra-carbon-rich peatlands to qualify for certification. RSPO provided a useful forum for the discussion of industry issues and a common complaint resolution mechanism – but with approximately two thirds of Asia's forests classified as secondary, and peatland

emissions rapidly growing to represent an important global source of climate pollution, it was clear that RSPO was not delivering either the reputational protection or environmental goods that consumer companies and even some financial institutions were seeking.[8]

In the spring of 2013, RSPO explicitly rejected the calls of its own members to close its loopholes. Consumer companies and financiers began to see RSPO as increasingly less relevant to actual sustainability. While some companies and financiers continue to associate themselves with RSPO, a spate of large companies have committed instead to a new class of deforestation-free standards. These standards are setting a new precedent as a condition of market access and the above-mentioned companies—Nestlé, Kellogg, Johnson & Johnson, Mars, Safeway, Ferrero Rocher, Hershey's, Delhaize, General Mills, Unilever, and others—have all committed to some kind of deforestation-free sourcing standard that far exceeds RSPO.

Access to Capital

Regardless of whether a company sells directly to customers with significant sustainability requirements, nearly every large commodity producer wants access to the international capital markets in order to fuel expansion. Although Southeast Asian commodity producers have traditionally relied heavily on local banks, family networks, and internal sources of finance, the growth ambitions of many companies and the pursuit of prestige that international financial institutions can confer have led even relatively small commodity companies in the region to seek out international banks and investors.

Until recently, even the most prominent financial institutions have preferred rhetorical support for sustainability to action. The largest banks and investors have lagged behind consumer companies in imposing environmental conditions on their investments; if the company's balance sheet says "profit," financiers often look the other way, even when it comes to large-scale environmental damage or human rights abuses.

But that laissez-faire attitude is beginning to change in the face of public scrutiny, client demand, and a growing realization that large-scale deforestation can translate into very tangible reputational, regulatory, and material risks. For instance, in March 2013, the largest sovereign wealth fund in the world, the Norwegian Government Pension Fund Global (GPFG), announced that it had divested from 23 palm oil companies.[9] GPFG separately divested from two giant logging companies,

including Malaysia's Ta Ann.[10] Dozens of other pension funds and institutional investors have either publicly or privately changed their investments in Southeast Asian companies in response to concerns about deforestation. Investors representing approximately $360 billion in assets under management recently wrote to Bunge, pressing the company to adopt a deforestation-free sourcing policy.[11] They also urged Bunge to sever its extensive business ties with Sarawak Oil Palms, which had engaged in extensive deforestation and peatland clearance, and also was working to undermine Wilmar's policy. Bunge has responded by seriously engaging its suppliers on these issues, and facilitating a dialogue with NGOs (including Forest Heroes).

Though the World Bank is an exception, most major private international banks have been historically reluctant to impose sustainability requirements on their financial services—though that has rarely prevented them from paying florid lip service to the need to protect the environment. Nonetheless, even some of the most bottom-line-motivated banks have started to identify deforestation as an area where the problems are so urgent—or at least so embarrassing—that they are willing to act. One leader in these activities has been BNP Paribas, which often insists that the commodity companies it finances get a clean bill of health from organizations like TFT before they will provide investment, lending, or underwriting services. Deutchse Bank recently divested from Bumitama in response to the company's ongoing deforestation.[12] And a coalition of 10 banks has been assembled under the auspices of the Banking Environment Initiative to consider industry-wide standards that would at least somewhat curtail the provision of financing to companies that are engaged in egregious environmental destruction.

This interest is not just altruistic or ephemeral; it is driven in significant part by client demand. Members of the Consumer Goods Forum (CGF), a consortium of 400 companies representing approximately $3.4 trillion in annual sales, have made a commitment to eliminate deforestation from their supply chains. Along with that pledge, CGF companies have formally appealed to their bankers to also take action to limit financing to companies engaged in deforestation. CGF companies such as Unilever, Coca-Cola, Mars, Kellogg, and Nestlé together provide billions of dollars in annual business to major banks. Their stability, regular cash flow and prominence mean they are some of the financial sector's most sought-after clients. Financial sector action on deforestation was also one of the major outcomes for heads of state and Fortune 500 CEOs at the UN Climate Summit in September 2014. At the summit, 27 national governments, 34 companies, 16 indigenous people's organizations, and 45 NGOs signed on to the New York Declaration to cut global forest loss in half by 2020, and to end it by 2030. In short, at the same time that global markets for goods connected to deforestation face

Government policies that may protect forest, peat, and community land in Southeast Asia

- **ASEAN zero-burning policy** (ASEAN zero-burning) Singapore government, draft-law extraterritorial liability for burning practices
- **Performance Standards** of the International Finance Corporation (IFC PS)
- **Indonesian government Regulation** PP 60/2012 on forestland release permits (Indonesian regulation PP 60/2012).
- **Regulation by Indonesian Ministry of Agriculture** 26/2007
- **Indonesian Environmental Protection and Management Law** 32/2009
- **Regulation by Indonesian Ministry of Agriculture** 98/2013
- **Papua New Guinea government's announced repeal of concessions for 5 million** hectares previously covered by Special Agricultural Business Licenses, and cancellation of SABL program (April-June, 2014)
- **EU ban on paraquat**

unprecedented pressure, companies engaged in deforestation can also anticipate reduced access global capital markets.

There is good reason for banks' rising sensitivity to the risks associated with companies engaged in deforestation and human rights abuses. Reputational risk is often paramount for these banks. Companies including HSBC, Citibank, Bank of America, and Deutsche Bank have in the past come under sustained attack from NGOs such as the Rainforest Action Network and Friends of the Earth for financing deforestation. These campaigns target the banks' customers, and can threaten to undo the billions of dollars in marketing that the financial institutions do to attract investors. In a world where investor demand for socially responsible investing has exploded[13]—and wealth managers have struggled to keep up—banks worry that association with environmental damage can do untold damage to their brands.

Partly as a result, banks have, when pressured, pulled investments or financial services from a range of companies in the land use space. Probably no bank has been subject to as much scrutiny as HSBC, which has been one of the most aggressive global financiers in palm oil, pulp and paper, cattle, soy and the other commodities connected to deforestation. Despite a series of forest policies going back to 1999, several independent investigations found that it was failing to live up to its own standards.[14] The bank has, however, responded to pressure over specific controversial investments. It divested from Golden Agri-Resources (GAR), helping to persuade GAR to adopt its original Forest Conservation Policy in 2010. More recently, HSBC has announced that it will cease providing financial services to the family of Sarawak chief minister Abdul Taib Mahmud, following a campaign by an international anti-corruption NGO that detailed how the bank's money was being used to fuel corruption, land grabbing and clearance of forest and peatland on a massive scale.[15] In March 2014, HSBC updated its Agriculture and Commodities Policy to somewhat tighten standards related to investments that could drive deforestation, though the policy falls well short of the type of No Deforestation standards adopted by consumer companies and traders—and it is unclear whether HSBC will more assiduously implement this iteration of its forest policy than the ones it has put forth in the past. Nonetheless, its new policy—like policies from Rabobank, BNP Paribas, Citibank, and Barclay's—does provide independent organizations with a standard to at least pressure these banks to drop specific controversial investments that may drive deforestation. For Southeast Asian companies engaged in deforestation, it means that no deal with an investor or bank is ever > CONTINUED ON P11

The IMPACT of forests on Southeast Asia's economy

In the Philippines, mangrove replanting has created jobs and protected coastal communities from natural disasters.

Locally, deforestation has made Southeast Asia far less resilient when natural disaster strikes—even though the region is the world's most vulnerable to rising sea levels. Widespread clearance of mangroves for shrimp farms and other development has robbed many Southeast Asian coastlines of their natural defenses. When the Indian Ocean tsunami struck in 2004, it was a disaster for development. The mangroves that had previously buffered the coast from tsunamis and regular erosion—and had reduced swell waves by up to two-thirds[24]—had fallen to make room for unsustainable shrimp farms and other development.[25] As a result, hundreds of communities that would have survived the tsunami almost entirely intact with mangroves were utterly destroyed without them.

Indeed, even without rampant ecological degradation, Southeast Asia is uniquely vulnerable to natural disasters; a high proportion of its population lives in low-lying coastal areas, and sea-level rise is expected to have outsized effects on the region. The Asian Development Bank estimates that the annual mean temperature is expected to rise by 4.8° C by 2100, with 70 centimeters of sea-level rise during the same period. All in all, the Bank reports, "the costs to these countries each year could equal a loss of 6.7 percent of their combined gross domestic product by 2100, more than twice the world average.[26]

Despite the extraordinary environmental, health, and economic damage that deforestation causes, it comes with very few measurable benefits. Degradation of peat accounts for approximately one-third of Indonesia's total emissions, but only contributes an estimated one quarter of one percent of the country's GDP.[27] In other words, this global-scale environmental destruction causes a great deal of economic damage, but very little economic growth. In contrast, where Southeast Asian companies and countries have pursued green growth—developing while protecting their natural resources—they have reaped the benefits.

The Philippines: Rehabilitation and the Rural Economy

For decades following the Spanish-American War, the Philippines suffered from exploitative forest management by the American colonial authorities and post-Independence governments. Within a few decades of the American takeover, excessive government-granted concessions dramatically reduced the country's forest cover from 70 percent to less than 30 percent.[28] Indeed, the overexploitation of the country's forests almost eliminated the economic contribution of forestry to the national economy. Forestry's contribution to gross domestic product declined from 2.1 percent in 1976 to 0.1 percent by 2004.[29] There were simply too few trees left to log. However, recent governments have worked to restore the Philippines' denuded forests, even as illegal logging has continued to plague the country. After deforestation and associated soil erosion fueled massive floods that killed dozens of people in 2011, the government and civil society dramatically intensified ecological restoration efforts. President Benigno Aquino instituted a nationwide logging ban, and launched a crackdown on illegal logging that resulted in hundreds of arrests. He also launched an intensive forest rehabilitation effort that has utilized mixed native species (unlike many other reforestation efforts throughout the world).

The Filipino government reports that its vastly expanded ecological restoration program is paying economic dividends; in the past three years, the country has planted 683,000 hectares of forest, more than it had done in the previous 23 years combined. The program has provided employment to 183,000 people in rural communities.[30] The results follow a pattern found around the world: Ecological restoration programs generate more jobs per dollar of investment than any other category of economic activity.[31]

permanent—they are just one NGO campaign away from losing the international financial partners that facilitate access to the global capital markets.

Banks are realizing that deforestation often creates a whole suite of risks that environmentally responsible companies just do not face. For one thing, companies with plans to develop large areas of forest peatlands, or areas used by indigenous people or local communities, may run into enormous legal, regulatory and market-driven obstacles.

Much primary forest in Indonesia, for instance, is covered by the Indonesian government's 2010 deforestation moratorium. In addition, Indonesian law prohibits clearing peat greater than 3 meters in depth, and includes a variety of other protections that can get in the way of land bank development (some of which are detailed in the table on the prior page). Many of the land concessions on which plantation companies depend have increasingly been subject to cancellation due to policy changes, findings of corruption involved in their issuance, and growing political demands on regional governments to protect community rights.

The courts in Papua New Guinea (PNG) canceled a series of concessions held by the Malaysian palm oil company Kuala Lumpur Kepong (KLK) because the concessions were issued in violation of customary land rights. In the wake of the case (which garnered intense national and international media attention), the government of PNG launched a comprehensive reevaluation of its land permitting process. In June 2014, PNG prime minister Peter O'Neill announced the cancellation of 5 million hectares of concessions (known as Special Agricultural Business Licenses, SABLs), an area the size of Costa Rica. Furthermore, the government announced that it would repeal the law that allowed the issuance of SABLs in the first place because it had found repeated fraud, political pressure and violation of community rights during their issuance. "We are taking these steps to reclaim our customary land illegally lost to foreigners with the help of corrupt public servants and leaders," O'Neill said when he announced the repeal.[16] The cancellation shows the fragile nature of plantation companies' land bank claims when they overlap with forests, peatlands or the local community's claims.

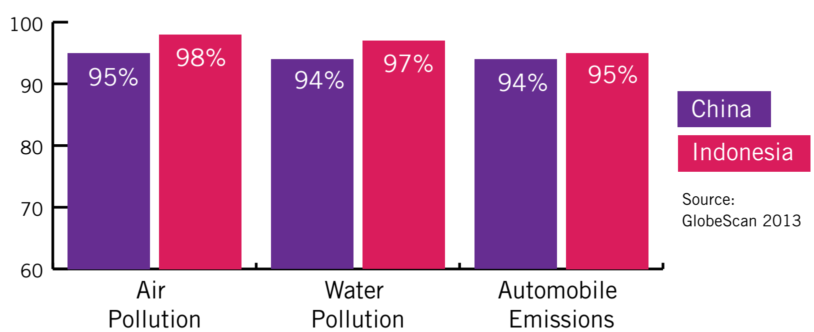
Indeed, there are real questions about whether financial analysts' traditional metrics for assessing plantation company value are still relevant. Historically, most analysts have looked at palm oil, pulp and paper, and rubber companies' land banks—their area of undeveloped land—as indicative of growth potential. Under this framework, more forest should equal a higher share price—it means more land to clear and turn into income-generating plantations. But in the language of risk, which has become increasingly prevalent in the analysis of fossil fuel assets, forested land should increasingly be seen as unburnable carbon, a stranded asset. In addition to the legal and policy risks, the fact that global traders controlling 96 percent of the commercial palm oil supply have adopted zero-deforestation policies means that companies engaged in deforestation may find it difficult to find a market for their products—even those products not connected to recent deforestation. A company that deforests anywhere may find its market access cut off everywhere.

East Leads West

Despite the rising pressure, a few companies, including Malaysia's Sime Darby and Singapore-listed Bumitama, have either continued deforestation or have vigorously resisted any meaningful efforts to protect forests. For instance, Sime Darby, and other Malaysian companies have promulgated what they have called a "Sustainable Palm Oil Manifesto," which, rather than instituting meaningful new forest policies—as Wilmar, GAR, and Cargill did—instead merely attempted to change the definition of forests so they could continue business as usual while conferring a green seal of approval on themselves. Many of these companies are pushing to export their deforestation model to new frontiers like Africa, the Western Amazon, Papua and Papua New Guinea, with potentially lasting effects on the economies and environment of those regions. The Southeast Asian tycoons behind this expansion look at these frontier areas as a way to recreate Sumatra's and Borneo's "good old days," when

Perceived seriousness of environmental pollution

Perceived as a serious problem,* China and Indonesia, 2013



* Equals "very serious problem" and "somewhat serious problem"

Palm oil and logging operations have polluted rivers and other drinking water supplies throughout Southeast Asia.

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they could gain access to cheap land and labor on a vast scale through bribery, displacing indigenous communities, and importing migrant laborers, sometimes under conditions approaching slavery. They are hoping that scrutiny by the media, investors, and civil society will be as limited in these frontier regions as it was until relatively recently in the core areas of Southeast Asian development in Malaysia, Sumatra, and Kalimantan (Indonesian Borneo).

Sime Darby CEO Dato' Mohd Bakke Salleh

IOI CEO Dato' Lee Yeow Chor

One rationale these companies often give for their resistance to responsible production is that the demand for deforestation-free sourcing is purely a product of Western companies. They claim that they can just sell their products to growing Indian, Chinese, and Southeast Asian markets where, until recently, there has been less organized demand for deforestation-free supply chains.

Increasingly, however, the strategy of avoiding the West to avoid sustainability just does not add up economically. More fundamentally, it fails to recognize that much of the demand for sustainability comes from Southeast Asian countries and companies themselves. One does not have to travel far in Southeast Asia to find rural communities enraged about the theft of their land or the contamination of their water sources. The 2013 pollution haze over the region created profound bitterness toward the companies that were responsible for it, and even caused the citizens of some of Southeast Asia's countries with moderately authoritarian governments to shake off their normal acquiescence and demand serious action.

In the wake of the haze crisis, opinion polls showed that overwhelming majorities of people were outraged at the irresponsible behavior of many palm oil and pulp and paper companies, and wanted urgent action to protect forests.

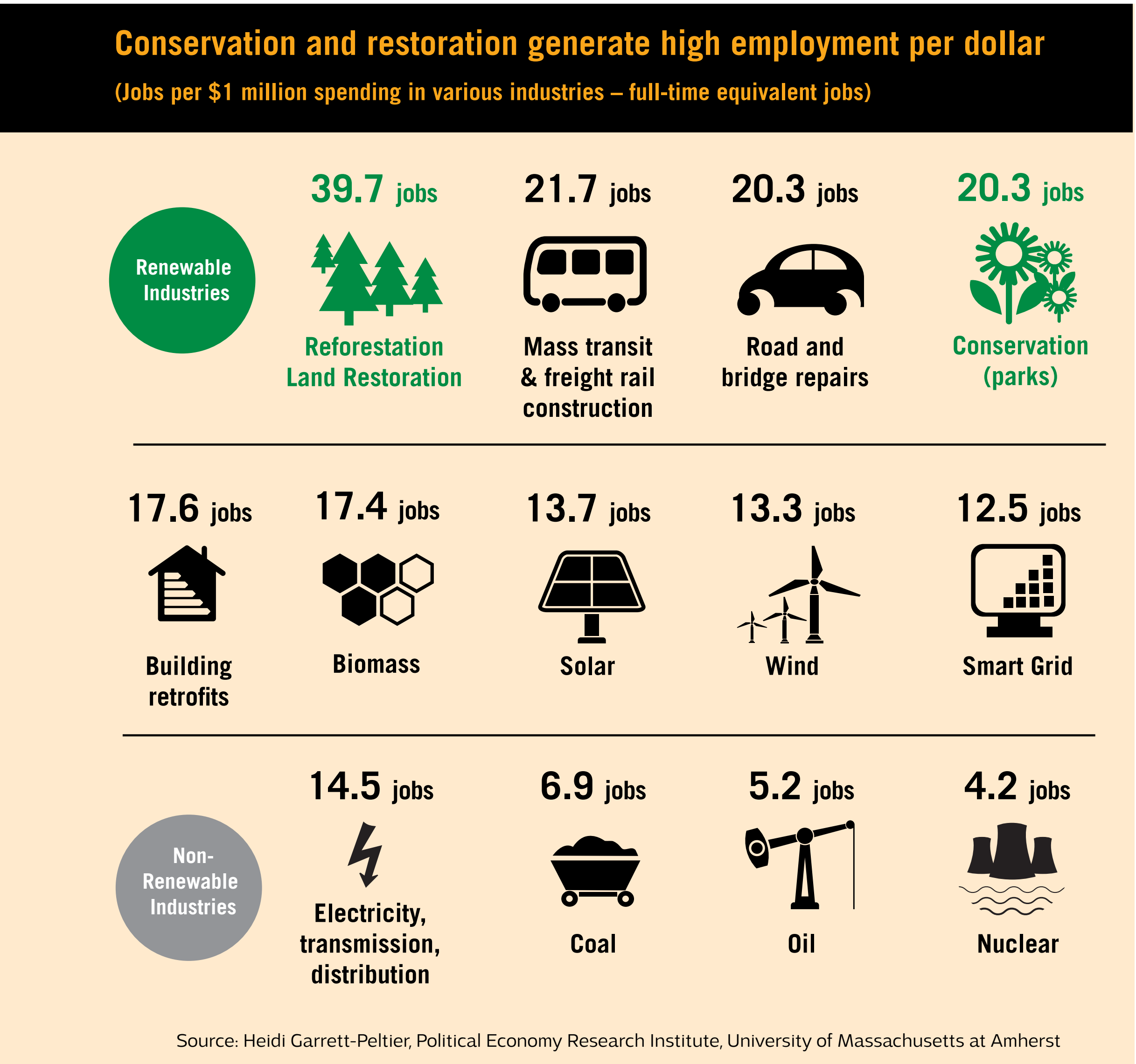
Singaporeans, who are usually loath to criticize their government, filled the newspapers and online forums with demands for stronger action to hold those companies that were responsible for the haze strictly accountable, with civil and criminal fines.[17] The Singaporean government responded by passing a law that would institute extraterritorial civil and criminal sanctions against companies that contribute to Singaporean haze—even if their deforestation occurs across the straits in Malaysia or Indonesia.[18] The only other area in which Singapore imposes extraterritorial jurisdiction is for child sex trafficking. The reality is that Asian companies, governments, and societies are now moving into the vanguard of demand for forest conservation.

Part of the reason for that revolution is business: A commodity company of any size needs diversified markets to respond to global price differentials, regulatory risk, and changing markets. For instance, in May 2012, China capped the prices that foreign vegetable oil importers could charge, causing the profits and share prices of companies heavily dependent on the Chinese market to enter free fall.[20] In addition, developed countries usually buy more high-margin, value-added products. Whereas India and Southeast Asia mainly consume crude palm oil, Europe, Japan, and the United States tend to buy higher-value products like palm kernel oil, palm stearin, and the many other palm oil derivatives.[21]

Chinese commodity import markets in particular also are subject to massive money-laundering schemes that can undercut profits for legitimate importers. Businesses in unrelated sectors frequently purchase commodity shipments on the cheap to secure collateral for a much larger letter of credit. With a line of credit for their core business (whether electronics, automobiles, finance, or online enterprises), they then dump the commodity without much concern for the price. The net result is to severely undercut profit margins for those businesses that are actually engaged in the Chinese commodity trade—making access to alternate markets even more important to enable growth. In other words, for many Asian commodity producers, Europe and North America are their emerging markets.

The Green Tigers Go Global

The impact of forward-thinking Green Tiger countries and companies is not just in Southeast Asia. Brazil has reduced deforestation by more than two-thirds since its peak in 2004, cutting associated climate pollution by more than twice the reductions achieved by the United States.[22] At the same time, Brazil has increased soy and cattle production year on year, finally breaking the link between deforestation and economic growth. It is dubious that Brazilian agriculture could have continued to grow without this dramatic improvement in conservation. In the mid-2000s, companies like McDonald's signaled to Brazilian producers that they would



Conservation and restoration of native ecosystems can provide a huge economic stimulus compared to other investments, as several Southeast Asian nations are already showing.

no longer buy their products as long as they were engaged in deforestation. Brazil faced a collapse of its global markets. But it responded effectively and quickly established a cooperative system between government, industry, and civil society to enforce a moratorium on deforestation for soy. Deforestation for soy plummeted from 25 percent of Amazon deforestation to 0.25 percent in just a few years, and similar gains were achieved in the cattle sector.[23] Brazilian agricultural products dramatically improved their reputation in export markets, and they have been able to hang onto and grow their market share.

Brazil's success presents both a model and a challenge for Southeast Asia. Generally, speaking, Brazil can grow the same tropical commodities that Southeast Asian companies can. The country is poised to dramatically expand its palm oil and paper sectors at the same time that it continues to grow the soy and livestock sector. Brazil has focused intensely on expanding its production on nonforest, heavily degraded lands. As a result, it is meeting global demand for deforestation-free commodities, though serious challenges remain. If Southeast Asia does not continue with a rapid transition to deforestation-free production, it is at serious risk of losing market share in key commodities, especially in high-value markets. Conversely, those companies that are adjusting are finding new market share, new investors, and new receptivity on the part of the people and governments of the region. The tables that follow pinpoint these Green Tigers and how they are driving Southeast Asia' economic future.

Fresh fruit bunches of oil palm.

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Major Palm Oil Suppliers

and the Trend to Forest Conservation and Human Rights

Factors Key:

Category Indicators

GREEN TIGERS:
RESPONSIBLE SUPPLIERS

YELLOW LIST:
SERIOUS ISSUES IN SUPPLY CHAIN

RED LIST:
IRRESPONSIBLE SUPPLIERS

- Agropalma
- Asian Agri
- Astra Agro Lestari
- Bumitama Agri Ltd
- Bunge
- Cargill
- Daabon
- Felda
- First Resources
- GAR
- Indofood
- IOI Group
- KLK
- Musim Mas
- New Britain Palm Oil Limited
- Olam
- Sime Darby
- Wilmar

✔	Good to excellent performance
✗	Changing or ambiguous performance, or inadequate data provided
✖	Poor performance

AGROPALMA

✔	Forest/HCV Protection
✔	HCS Protection
✔	Peat Protection
✔	Human Rights

This Brazilian supplier is a world leader in providing responsible palm oil, and it does not conduct development on forests, High Carbon Stock (HCS) landscapes, High Conservation Value (HCV) land, or peatland.

DAABON ORGANIC

✔	Forest/HCV Protection
✔	HCS Protection
✔	Peat Protection
✔	Human Rights

Colombian Daabon has achieved Rainforest Alliance certification, protecting forests, peatlands, and human and community rights. It is a leading supplier of organic palm oil.

GAR

✔	Forest/HCV Protection
✔	HCS Protection
✔	Peat Protection
✔	Human Rights

GAR is the world's largest private-sector palm oil producer, and it announced an industry-leading Forest Conservation Policy in 2010. It is working with TFT to implement this policy. Independent reports have confirmed that GAR has largely implemented the policy on its own plantations, though there have been gaps as well.[33] During the recent Southeast Asian forest fires, satellite analysis detected almost no fires on its plantations.[34] Since 2012, GAR has become one of the leading traders of palm oil; and in March 2014, it announced that it would extend its forest conservation policy to third-party suppliers.

WILMAR

✔	Forest/HCV Protection
✔	HCS Protection
✔	Peat Protection
✔	Human Rights

Wilmar International controls 45 percent of the global palm oil trade, is the largest buyer of soy from Latin America, and is one of the world's largest sugar companies. In December 2013, it announced a comprehensive "No Deforestation, No Peat, No Exploitation" policy that required its suppliers to immediately cease any development of forests, including HCV and HCS lands, and peat of any depth.

Wilmar has partnered with The Forest Trust (TFT) to implement the policy; they issued their fourth and latest implementation progress report in December 2014. Wilmar has already cut off several suppliers who were found to be continuing to conduct deforestation or to have committed serious human rights abuses following the policy announcement. With more than 800 suppliers, however, Wilmar has inevitably faced serious challenges. Suppliers like Astra Agro Lestari have engaged in extensive land clearing; the independent Indonesian organization Greenomics has found that Kencana Agri, a company 20 percent owned by Wilmar, has recently engaged in deforestation in Sulawesi.

Nonetheless, there are clear signs of progress in eliminating deforestation from Wilmar's enormous supply chain. The company is currently conducting high carbon stock assessments and other analyses of its supply chain both in Asia and Africa. In January 2014, Wilmar took a major step toward making its supply chain open and transparent to the public by becoming the first trader to establish an online dashboard showing information about all of the company's palm oil suppliers in Indonesia and Malaysia.

Importantly, Wilmar's policy applies to all the commodities in which it trades, including soy and sugar, though Wilmar needs to accelerate implementation for soy. While there are challenges, Wilmar's policy represents a major step forward toward global deforestation-free commodity production and trade, and the company is leading the industry toward responsible production.

An orangutan near a Bumitama palm oil plantation in Indonesian Borneo, 2014.

© Glenn Hurowitz

CARGILL

	Criterion
✔	Forest/HCV Protection
✔	HCS Protection
✔	Peat Protection
✔ ✗	Human Rights

Cargill is a major player on palm oil, and in July 2014 it announced a "No Deforestation, No Peat, No Exploitation" palm oil policy for its own operations and its third-party suppliers. This policy was a major step forward for Cargill, and was widely praised by outside experts and NGOs. The policy does contain some gaps; it does not address the use of hazardous pesticides, such as those banned by the Rotterdam Convention and paraquat, and it does not make any commitments to address mill effluent, a globally significant source of methane pollution.

In September 2014, at the UN Climate Summit in New York, Cargill announced that it would extend its zero-deforestation policy to all its global commodity operations such as cattle, soy, sugar, and cocoa among others. Cargill has yet to publish details on the implementation of this cross-commodity policy.

In November 2014, Cargill released its first implementation progress report for its palm oil policy, and it has partnered with TFT to provide traceability to its customers. Cargill notes that it is currently on track to map 80 percent of its palm oil in key markets back to individual mills by the end of 2014, and 100 percent of all mills by December of 2015.

MUSIM MAS

	Criterion
✔	Forest/HCV Protection
✔ ✗	HCS Protection
✔	Peat Protection
✔	Human Rights

Musim Mas is a privately held Singapore-based company that controls approximately 18% of the global palm oil trade. In December 2014, Musim Mas announced a new No Deforestation, No Peat, and No Exploitation policy for its palm oil supply chain and third-party suppliers, effective immediately. Under the policy, all palm oil sourced will be traceable to the mill level by the end of 2015, and to the plantation level by the end of 2016. Musim Mas has also undertaken efforts to reduce methane emissions at its mills with the assistance of the Government of Denmark.[35] In conjunction with the policy, Musim Mas has become a member of The Forest Trust to help ensure successful and transparent implementation of the policy.

Musim Mas has stated that, for now, it will protect High Carbon Stock (HCS) forests according to the standard approach used by Wilmar, GAR, Cargill and others. However, Musim Mas is still supporting the "Palm Oil Manifesto," which has been roundly discredited by forest advocates for its attempt to weaken the HCS standard. Musim Mas' continuing to entertain the weaker Manifesto approach sends a concerning mixed message about the depth of its commitment to forest conservation.

In implementing its new policy, Musim Mas has serious issues it needs to rapidly address. Musim Mas has recently come under fire from NGOs Rainforest Action Network, Greenpeace and others that have connected the company to deforestation in Sumatra's world-renowned Leuser Ecosystem. In addition, it recently announced a deal that would turn it years backwards in its progress toward sustainability: it has obtained permits to develop lands in the heavily forested Indonesian province of Papua, where palm oil companies have frequently operated in collusion with military forces to evict or abuse local people trying to defend their homes. The company is in the process of obtaining additional lands that would bring its total Papua landbank up to 100,000 hectares. All these concessions are heavily covered by primary forest.[36]

NEW BRITAIN PALM OIL LIMITED

	Criterion
✔	Forest/HCV Protection
In Development	HCS Protection
✔	Peat Protection
✔	Human Rights

Operating primarily in Papua New Guinea, NBPOL has 100 percent RSPO certification and is working with TFT to finalize a comprehensive HCS protection policy.

Crested black macaque, Sulawesi.

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YELLOW LIST: SERIOUS ISSUES IN SUPPLY CHAIN

SIME DARBY

✗	Forest/HCV Protection
✗	HCS Protection
✗	Peat Protection
✗	Human Rights

Malaysia-based Sime Darby is one of the world's largest palm oil growers. There has not been recent public evidence of large-scale deforestation by Sime Darby in Asia, and Sime has made significant progress in achieving RSPO certification for its Southeast Asian operations. However, NGOs have raised serious concerns about the impact on forests and local communities of its operations in Liberia.[37] The company has acquired a 63-year lease for 311,187 hectares of land in Liberia, with 220,000 hectares slated for development. Sime Darby has conducted some mitigation activities, but its plans for addressing deforestation and exploitation of communities in additional expansion remain unclear. More broadly, the company has led resistance to industry adoption of a "No Deforestation, No Peat, No Exploitation" policy. Instead, Sime Darby has led an initiative to create a so-called palm oil manifesto that would attempt to change the definition of what forests merit protection under palm oil industry forest conservation policies.[38] While the Wilmar and GAR policies, for instance, adopt a scientifically grounded approach that allows development on grassland, and young scrubland, but protects HCS forests, this Sime Darby–led initiative merely authorizes a study that would try to redefine protected forest by allowing potentially many more categories of land to be cleared. NGOs, consumer companies, and investors have repeatedly urged manifesto signatories to institute a moratorium on clearance of HCS forests while this study is under way, but the manifesto's signatories have refused to do so. As a result, Sime Darby and other signatories have given themselves a free pass to "study and log." In Sime Darby's case, it is expected that they see this effort as a way to give themselves more flexibility to clear forest in Africa.

FELDA

✗	Forest/HCV Protection
✗	HCS Protection
✗	Peat Protection
✖	Human Rights

Malaysia's Felda grows and trades a significant percentage of the world's palm oil, accounting for between 25 and 40 percent of Malaysia's entire palm oil exports. According to its 2013 filing, only 25 percent of its land base was RSPO-certified. In addition, it has only set aside 2000 hectares out of its 723,000 hectare land base for conservation.[43] While there has not been large-scale recent evidence of deforestation in Felda's land base, there are serious concerns about deforestation connected to its plans to expand overseas expansion in Kalimantan (Indonesian Borneo), Cambodia, Burma, Papua New Guinea, Liberia, and Cameroon.[44] In addition, the economic analysis organization Profundo found issues involving poor labor practices.[45] Felda is also an investor in IRIS Corporation, which recently concluded a joint venture project to develop 100,000 hectares, including on contested community land, in Papua New Guinea.[46]

OLAM

✗	Forest/HCV Protection
✗	HCS Protection
✗	Peat Protection
✗	Human Rights

Olam is a Singapore-based commodity trader. In 2010, Olam entered a joint venture agreement with the government of the Republic of Gabon that allocated the company 300,000 hectares of land, of which it has said it plans to develop at least 100,000 hectares into industrial palm oil plantations by 2019.[39] If Olam's project is completed, McKinsey & Company estimates that it will be Africa's biggest palm oil plantation.[40]

A study by the Rainforest Foundation UK found that of the three lots that make up the first 52,000 hectares identified for palm oil development, two are entirely within Ramsar-listed wetlands where endangered manatees live. A large part of the third lot was found to be home to endangered chimpanzees and elephants.[41] Olam gave the first two lots back to the government after deeming them unsuitable for development, and has committed not to clear the high conservation value areas in the third lot, but the company has not announced independent third-party monitoring.

Overall, Olam's forest protection policy lags significantly behind almost all the other major traders. Instead of using the standard definition of High Carbon Stock forests developed by TFT, Greenpeace, and GAR, Olam only says it defines HCS through a vague "multi-stakeholder process in the country of origin."[42] In addition, Olam's policy does not apply to its third-party suppliers of palm oil.

ASIAN AGRI

✗	Forest/HCV Protection
✗	HCS Protection
✗	Peat Protection
✗	Human Rights

WWF has documented Asian Agri sourcing palm oil from within the world-famous Tesso Nilo National Park,[47] one of the few places in the world where tigers, rhinoceroses, orangutans, and elephants live together.[48] The company has for many years been involved in driving deforestation. In response to pressure from customers and Greenpeace, Asian Agri adopted a moratorium on clearing HCV and HCS, including peat in line with the standard definition used by Wilmar, GAR, Cargill and others. However, Asian Agri's parent company Royal Golden Eagle continues to engage in extensive deforestation, and implementation needs to be monitored as well.

BUMITAMA AGRI

Bumitama Agri Ltd

✗	Forest/HCV Protection
✗	HCS Protection
✗	Peat Protection
✗	Human Rights

Bumitama Agri is a rapidly growing palm oil producer that is majority owned by the Hariyanto family, with a significant minority stake owned by the Lee family's IOI Group (see above). Bumitama has repeatedly been found to be engaged in deforestation, including on orangutan habitat, as well as deforestation of peatland.[49] As a result, it has drawn perhaps more scrutiny from NGOs and consumer companies than perhaps any other palm oil grower. Bumitama Agri—PT Gemilang Makmur Subur and PT Gunajaya Harapan Lestari—are not owned by Bumitama Agri itself but by the Hariyanto family. Bumitama has engaged in deforestation and illegal operations across many of its plantations. For instance, the company's Gemilang Makmur Subur plantation in Central Kalimantan was found to be operating without any of the critically required national permits in violation of Indonesia's Forestry Act, the Environmental Act, and the Plantation Act.[50] All in all, Bumitama has deforested an estimated 20,000 hectares directly. In addition, Bumitama operates joint ventures with IOI Group members such as the Bumi Sawit Sejhatera (BSS)—see above. The RSPO Complaints Panel confirmed that the company had been clearing land before carrying out the necessary HCV assessments. The panel noted that the noncompliant practices of Bumitama might be "systemic in nature."[51] More recently, Bumitama has promised repeatedly to stop deforestation on its plantations, and it has set aside 11,000 hectares for conservation.[52] It has also started working with the HCS assessor Ata Marie to determine what areas are eligible for development and what should be protected. As a result of this HCS pilot study, Bumitama announced in September 2014 that it would protect more than 13,000 ha of forest across five subsidiaries.[53] However, the policy does not apply to all subsidiaries, or to third party suppliers. In addition, NGO reports find that it has continued to operate a palm oil plantation on which more than 7,000 ha of land were cleared in clear violation of a July, 2014 Indonesian Supreme Court order.[54] Although Bumitama's HCS announcement marks an important step forward, the company still has many sustainability issues to address. It has told customers and the public that it is working to have a comprehensive approach in place by the end of 2014.

BUNGE

✗	Forest/HCV Protection
✗	HCS Protection
✗	Peat Protection
✗	Human Rights

Bunge is a large global agricultural trader based in White Plains, New York that buys and sells significant volumes of palm oil. The company has purchased almost half of its palm oil from a single supplier, Sarawak Oil Palm Berhad (SOP). SOP has cleared extensive areas of peatland forests in Malaysia's Sarawak state, one of the most carbon-dense ecosystems in the world.[55] SOP has worked with other Sarawak producers to undermine enforcement of Wilmar's No Deforestation policy,[56] contributing to Sarawak's status as the epicenter of peatland clearance in the world. The state cleared an incredible one-third of its peatlands between 2005 and 2010 alone, with SOP at the center of these activities.[57]

In October 2014, Bunge announced a zero-deforestation policy for its palm oil supply chain. The policy does not address the use of hazardous pesticides, such as those banned by the Rotterdam Convention and paraquat, and it does not make any commitments to address mill effluent, a globally significant source of methane pollution. Bunge continues to buy significant volumes of palm oil from Sarawak, which has yet to address the serious issues associated with palm oil expansion in the state. However, Bunge has committed to end its partnership with suppliers that are out of compliance with its new policy.

IOI LODERS CROKLAAN

✗	Forest/HCV Protection
✗	HCS Protection
✗	Peat Protection
✗	Human Rights

Through its IOI Loders Croklaan affiliate, IOI Group is one of the world's largest palm oil players, controlling an estimated 10 percent plus of global palm oil trade. In addition to purchasing from hundreds of third-party supplier mills, the company also operates its own plantations and participates in a number of palm oil joint ventures. The company's clearance of orangutan habitat, peatland, and forests has long pegged it as one of the least responsible actors in the palm oil industry,[58] and it was named "the worst company you've never heard of" by Forest Heroes in a public campaign.[59]

However, in November 2014, IOI announced a "No Deforestation, No Peat, No Exploitation" policy for its global palm oil supply chain.[60] The company said that the policy would apply to all its third party suppliers, subsidiaries, and joint ventures in which it had management control. Advocates both praised the move, and at the same time warned that they would be closely scrutinizing implementation efforts, given the company's recent history of deforestation and serious labor and human rights issues.[61] In addition, although IOI has said in writing that the policy covers both IOI Loders Croklaan and IOI Group, IOI Group has yet to formally adopt the policy, and also has not announced a credible implementation partner or concrete implementation plans.

IOI's new policy may make a comprehensive commitment by Indonesian palm oil grower Bumitama more likely. Bumitama, which is 31% owned by IOI, has stated that it is working to launch its own forest conservation policy to be released soon.

Sumatran elephants, in danger of poisoning on palm oil plantations.

© Rhett Butler / mongabay.com

INDOFOOD

✖	Forest/HCV Protection
✖	HCS Protection
✖	Peat Protection
✖	Human Rights

Less than one-third of Indofood's plantations were RSPO certified in 2012, and the company has few sustainability policies or practices.

KLK

✖	Forest/HCV Protection
✖	HCS Protection
✖	Peat Protection
✖	Human Rights

KLK has had serious issues with deforestation in Kalimantan, and the Indonesian National Police named KLK as a suspect in deliberate forest burning.[62] More recently, KLK has claimed the right to develop palm oil plantations on 40,000 hectares in the Collingwood Bay area of Papua New Guinea—an area rich in primary forests. KLK's claims conflict with the rights of the nine tribes that live in the area, whose members have vehemently contested KLK's right to destroy their forests and establish palm oil plantations. Both PNG Courts and the Roundtable on Sustainable Palm Oil have ordered KLK to stop work in the area.[63] Bloomberg Businessweek also published a lengthy exposé showing that KLK has made extensive use of forced labor.[64] KLK has said that its subsidiary was responsible for failure to pay wages and other violations, and that it has taken remedial action.[65]

In January 2015, KLK made progress by announcing that it will employ the industry standard for HCS forests that has been developed by TFT, GAR, and Greenpeace. The move clarifies how KLK will define HCS areas while awaiting the results of its own HCS study, which is underway. In December 2014, KLK announced its own "sustainability policy." The policy was widely criticized for not applying to the company's suppliers, trading partners, or joint ventures, and it did not commit to using the standard HCS approach. KLK has since committed to the standard HCS methodology, but its policy still does not bind KLK's suppliers and partners to any No Deforestation practices, making it significantly weaker than other companies' policies.

Timber from a logging operation is floated down the Sampit River in Indonesia, 2012.

© Rhett Butler / mongabay.com

First Resources Limited

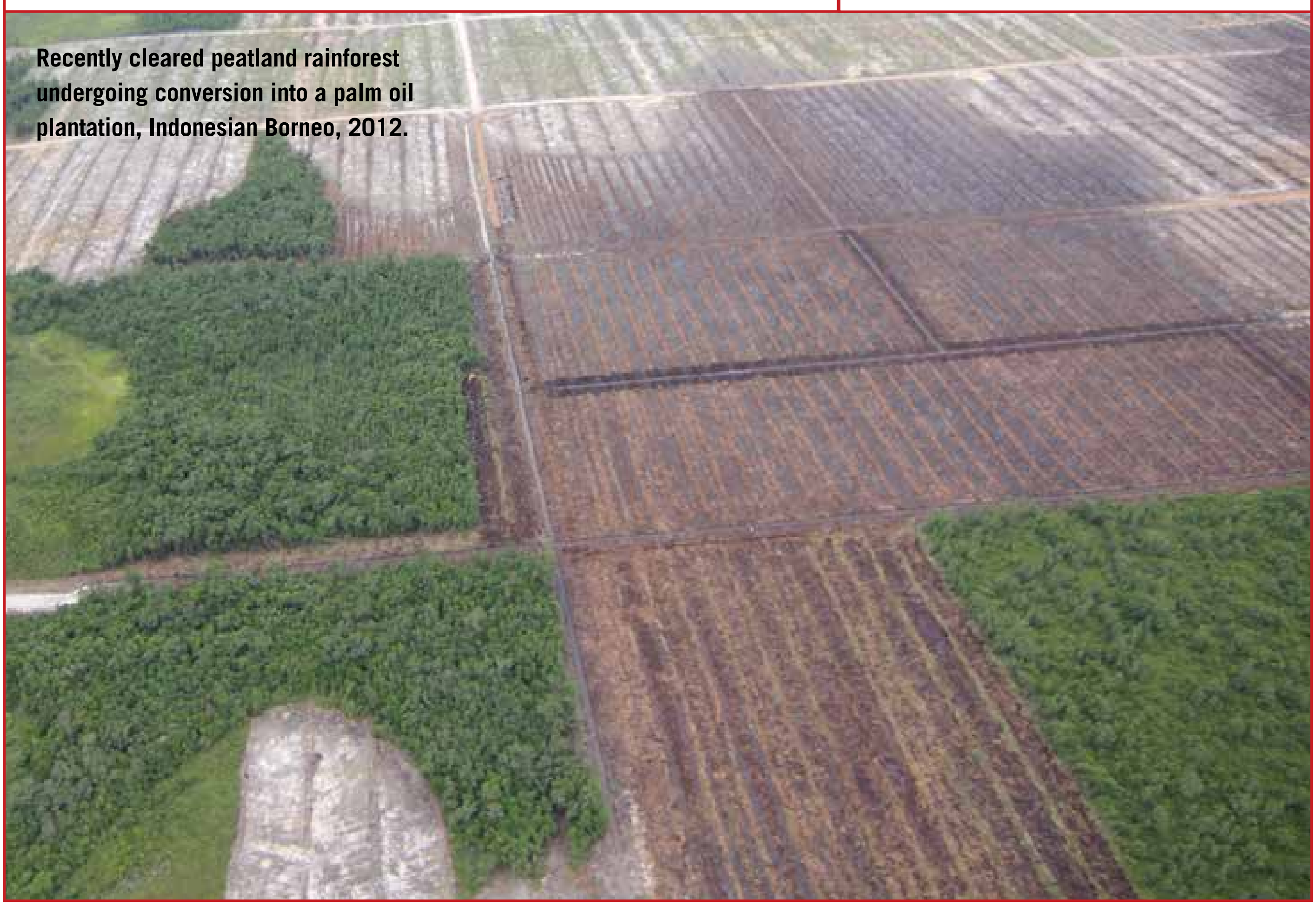
✖	Forest/HCV Protection
✖	HCS Protection
✖	Peat Protection
✖	Human Rights

Singapore-based First Resources Limited is one of the fastest-growing palm oil producers in Southeast Asia. The company has had a number of environmental issues. In October 2012, the Environmental Investigation Agency lodged a formal complaint against First Resources, which resulted in RSPO sanctions against the company. RSPO found that First Resources was guilty of clearing and developing forests in Indonesia's East Kalimantan prior to carrying out HCV assessment and without getting the consent of indigenous populations. First Resources was also accused of clearing HCV forest in West Kalimantan, leading the RSPO to conclude that the company's bad behavior is systematic.[66] In June 2013, First Resources was among the palm oil companies identified as responsible for massive, illegal fires on their concession areas in Indonesia, contributing to some of the worst haze ever to blanket Southeast Asia. In 2014, First Resources appeared again on alert lists for burning illegal fires on their concession areas.[67] The company lacks a meaningful sustainability policy.

ASTRA AGRO LESTARI

✖	Forest/HCV Protection
✖	HCS Protection
✖	Peat Protection
✖	Human Rights

Astra Agro Lestari (a subsidiary of the UK-based Jardines Group) has been associated with deforestation and peatland destruction, notably in the world-famous Tripa Swamp Forest in Sumatra, home to one of the last populations of Sumatran orangutans. The area is part of the globally important Leuser Ecosystem of Sumatra. A 2012 Rainforest Action Network report cited the company for clearance of thousands of peatland forests in Tripa. The company lacks meaningful policies that would effectively protect HCS forests.



Recently cleared peatland rainforest undergoing conversion into a palm oil plantation, Indonesian Borneo, 2012.

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info@forestheroes.org