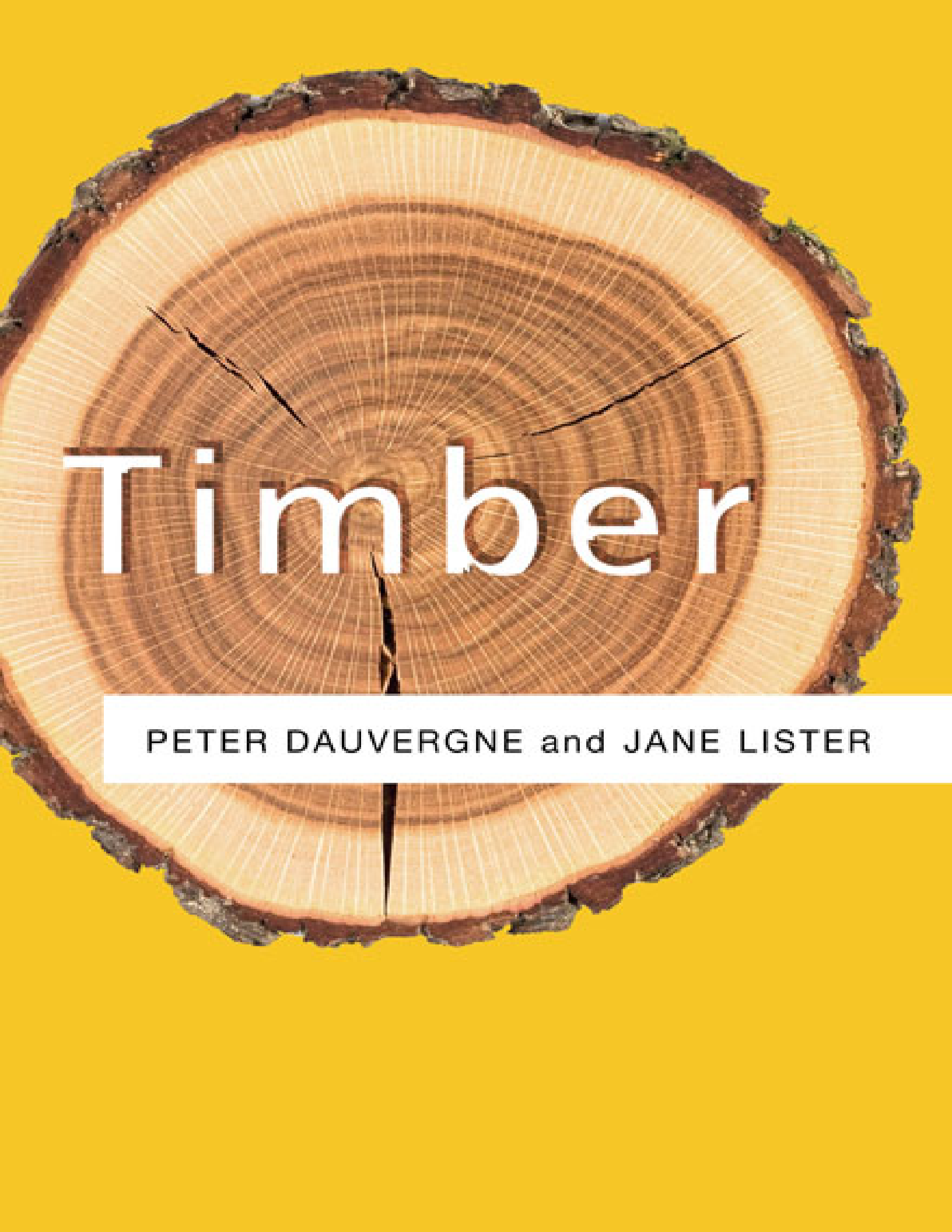


A cross-section of a tree trunk is centered on a solid yellow background. The wood shows clear concentric growth rings, with a darker outer bark layer. Three thin, dark cracks are visible on the wood surface. The word "Timber" is written in a large, white, sans-serif font across the middle of the wood slice.

Timber

PETER DAUVERGNE and JANE LISTER

Timber

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polity

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CHAPTER ONE

The Global Political Economy of Timber

It is hard to get through a day without relying on timber. It is one of the world's most versatile natural resources used in everything from home construction, furniture, packaging, books, diapers, hospital gowns, and currency to paint solvents, food, pharmaceuticals, and fuel. It is also one of the world's most renewable resources. Unlike oil, we will not run out of timber. Brazil alone could meet the world's total timber demand. Unlike other natural resource crises, adequate supply is not, nor will it become, the critical issue. Rather, the global challenge of timber is about the increasing loss of ecological services, forest biodiversity, and community well-being from the way timber is now logged, traded, produced, and consumed through globalizing commodity chains – production and consumption pathways that are lengthening and multiplying across and between continents as multinational discount retailers like Walmart, Home Depot, and IKEA increasingly turn to the developing world as a source of cheap products to maintain profits and serve bargain-hunting consumers.

Ten thousand years ago, vast, contiguous natural forests blanketed much of the world. The history of timber as a resource worth fighting for began as settled agricultural communities cleared these forests, as towns built forts, and as schooners battled at sea. Yet, even as monarchs took control of timber in some places, in most of the world it remained a shared community resource. Here, few had any

reason to fight over what was a renewable and seemingly inexhaustible asset.

Today, more than half of these original forestlands are gone, with deforestation since 1950 roughly equal to all of the previous loss and with many natural forests fragmented or replaced by industrial timber plantations. For temperate and most boreal forests, governments from China to the United States are now enforcing stricter logging rules, reforesting degraded land, and extending parklands. Many problems remain. But, on the whole, the last few decades have seen the management of forests in strong regulatory states – those with a capacity to enforce rules consistently – gradually improve on at least some measures, such as reforestation rates.¹

At the same time, management of many tropical forests as well as the Russian boreal forest remains as bad, or is worsening, and deforestation is a greater threat than ever before. Here, some of the poorest communities and most vulnerable ecosystems – in places like the Amazon, Borneo, Siberia, and sub-Saharan Africa – are in a spiraling decline.

From a purely ecological stance some might wonder if the gains in the temperate world might offset the declines in tropical and Russian boreal forests. The answer is no: not even close.

Tropical regions are experiencing sweeping forest fires, extensive soil erosion, and flash-flooding. Slow-growing boreal regions are experiencing vast clear-cutting. The net result is an accelerating decline in the earth's capacity to support communities, sustain biodiversity, and store carbon dioxide. Undisturbed tropical forests alone absorb more than one billion tonnes of carbon from the atmosphere every year. Deforestation, meanwhile, is one of the biggest contributors to climate change, accounting for as much as one fifth of anthropogenic carbon dioxide emissions – more than the global transport system.² This adds as well to

inequality and insecurity as deforestation is greatest in some of the world's lowest-income communities and most unstable states, where forest loss contributes to rural violence and the spread of disease, among many other problems.

Why is this happening? The broad, encompassing answer is poverty and population pressure. Forests are increasing in high-income countries with stabilizing populations, whereas by necessity developing countries with rising populations are seeking income gains by harvesting their forestland and converting it to higher-value economic uses. Development, expanding cities, growing markets, and rising per capita consumption in emerging economies are all putting greater demands on forest resources. A closer analysis, however, reveals that the causes of tropical deforestation are not strictly within the developing world, but lie as well in high-consuming developed countries.

Fundamentally, an underlying reason for continued deforestation comes down to who is controlling and consuming timber, and how and why this is changing. Our book zeros in on the consequences of one factor in particular: the globalization of corporate commodity chains that move products from producers to consumers. Changes *within* these chains, we argue, are increasing the pressures on the remaining undisturbed native forests and degraded forestland of the Third World (what we also refer to as the "global South," or sometimes simply "the South"). Significant international capital investments are now flowing into large-scale modern pulp and paper and solid wood manufacturing facilities in the South (such as the emerging economies of Brazil and China). To some extent the new mills (many in partnership with firms headquartered in "the North") are supplying emerging domestic markets; but most are aiming to supply customers in the North, who already consume around three-quarters of the world's solid wood and close to two thirds of its paper. Moreover, a significant

quantity of timber “consumed” in the South ends up on the retail shelves and landfills in the North, not shipped as “products” but as paper packaging and pallets to wrap, protect, and brand growing exports of manufactured goods.

The rapid rise in global timber production capacity in the South has created large regional fiber deficits (especially in Asia). This has led to a frenzied demand for cheap – and often illegal – tropical and Russian boreal timber to feed the new mills. To help meet the growing demand, governments and companies have been establishing fast-growing industrial timber plantations. Often, though, these are at the expense of soil and water quality, native forests, and forest-dependent communities (sometimes displacing people). And multinational timber corporations now rely on shipping low-cost pulp, logs, lumber, paper, and manufactured wood products back and forth across the globe in an effort to gain cost advantages, maximize profits, and maintain market shares.

Third World suppliers, by integrating into these globalizing timber chains, can make lots of money. Yet, to meet low-price contracts, many end up working harder and harder to keep costs as low as possible – strategies that include logging destructively or illegally and evading taxes or fees. Consumers in the North reinforce the system by buying timber products – furniture, flooring, cribs, picture frames, paper – at quantities and prices that largely ignore the environmental and social costs. Moreover, these bargain products are packaged in corrugated boxes and loaded onto millions of wooden pallets (most of which end up in a landfill after a single use) – all of which further drives up wasteful, unsustainable timber consumption. The net effect is to cast deeper and longer ecological and social shadows of high consumption in the First World onto poor peoples and fragile environments in the Third World.³

The future of intact, old-growth tropical forests does indeed look bleak. These biologically rich ecosystems are now on a path to disappear by the end of the century.⁴ And more efficient manufacturing, rising rates of paper and wood recycling, and expanding timber plantations are doing little to slow this loss. In many cases industrial plantations in the global South are making conditions even worse – doing little for the local environment as fast-growing species like eucalyptus are pulped into “luxury” exports, such as “soft” and “bright” toilet paper. Yet, intriguingly, as we explore in the book’s conclusion, the shifting power balances among corporations within global commodity chains are also creating some possibilities to leverage the power dynamics within these chains to improve logging and timber manufacturing practices in developing countries.

Corporate powerhouses

Multinational forest and paper corporations from Europe, North America, and Japan are still at the core of the global timber industry. Yet, as the Food and Agriculture Organization (FAO) explains, the model of a large vertically integrated company is “giving way to highly networked global supply chains, linking firms and affiliates across countries.”⁵ Giant retail chains and wood product buyers like Home Depot, Lowe’s, IKEA, and Walmart are expanding in size and global reach, and changing the structure and rules of global timber supply chains with their growing “buyer-driven” power to control suppliers.⁶ This shift to greater retail control and more networked supply chains is also providing opportunities for Third World firms to grow rapidly and capture global market share. The consequence is the erosion of some of the historical control of First World (Northern) timber multinationals, although in terms of market capitalization and sales Third World timber

companies remain significantly smaller with a relatively weak presence in higher-end First World markets.

With profit margins narrowing in mature home markets (ones with limited new growth potential) over the last few decades, the traditional Northern forest and paper multinational corporations (MNCs) have been partnering and relocating manufacturing facilities to the Third World in search of cheap fiber (both plantation and natural) and lower operating costs. Commodity chains supplying consumers from New York to Tokyo have become longer and more complicated, increasingly flowing through every emerging national economy – including Brazil, China, India, Indonesia, and Russia – as well as through every developing region. Trade no longer flows primarily along a consistent and direct pathway from producer to consumer. Most products instead move through distributed and multidimensional networks of ever-shifting players and multiple owners along obscure routes that criss-cross borders and markets.

Northern timber manufacturers and retail companies retain most of the power within these chains. They especially have control over structural features that shape the means of corporate interaction and the range of options for all actors (such as legal contracts, purchasing agreements, and performance standards). These companies also tend to frame – and thus largely control – the private and semi-private policies and discourse (language, ideas, and values) within and around these chains, such as “voluntary regulation” and policies like corporate social responsibility (CSR). This form of power is more indirect, although often no less (and sometimes more) effective, as it constitutes and can precede more formal corporate contractual arrangements.⁷ Governments and international institutions such as the World Trade Organization and the World Bank can further enhance the legitimacy of this

framing – and in turn the structural power of Northern companies – by endorsing and reinforcing this corporate discourse.

The rise of a discount economy of mass production and merchandizing of cheap products and the strengthening of global retail chain power are mutually reinforcing trends. Big retail can wield a big stick: few Third World loggers or timber processors can afford to be replaced by another supplier. “Switching,” in the language of business, can be fairly easy and inexpensive to do for many standardized timber products, especially for a mega-retailer like Walmart.

For this reason a company like Walmart, which commonly accounts for 10–30 percent of an average supplier’s business, has considerable capacity to influence the actions of its suppliers: potentially far more, for example, than a weak regulatory state such as Indonesia where politicians and military officers often shield timber firms. To some extent this is even true in a relatively strong emerging economy like China. Benny Fung, managing director of Lutex, a Hong Kong-based health and beauty company, explains this nicely in the case of Walmart: “We heard that in the future, to become a Walmart supplier, you have to be an environmentally friendly company. So we switched some of our products and the way we produced them.”⁸

So far, however, few of the large discount retailers are consistently exercising their power to raise environmental or social standards. Instead, they are more likely to use it to squeeze their suppliers to leverage a better price deal. Big box retailers, for example, are known to strike buying contracts with suppliers that take up a large fraction of a factory’s production capacity. The supplier then invests in a redesign of its facility to meet the huge order. The following year the retailer may then offer the same purchase order, but now demand a lower price: say, a 5 percent discount.

The supplier is then stuck, often having gone into debt to raise production to meet the first year's big order. A firm caught in this situation generally cannot afford to not comply – somehow, cost reductions must be found. The result can be innovation, but usually not what one thinks of as responsible business practices. Rather, the creative energy of the corporate executives goes into finding ways to cut corners and hide illegalities and poor business practices: for example, by falsifying documents and audit reports, misreporting tree species and volumes to reduce government fees, or creating “front-companies” to disguise the real manufacturing source of the products sold to the big box retailer.

Companies headquartered in the North rely also on Third World suppliers as agents for the exercise of more blunt forms of power: from coercing locals to bribing officials to evading taxes. Suppliers from the global South are not, however, mere pawns of the North. There is considerable variation in the organization and operation of chains across the wide array of timber products.⁹ All Third World suppliers wield at least some power within these chains. And a few, especially on a regional scale, are even chain leaders. The growing market capacity of firms like Fibria in Brazil and Shandong Chenming Paper in China, for example, is to some extent eroding the historical control of Northern timber MNCs over global trade and markets.

One sign of the power of some “Southern” suppliers is the move over the last decade by Northern companies – both timber producers and retailers – to partner with suppliers from emerging economies such as Brazil, Russia, Indonesia, and, in particular, China so as to gain access to new markets, low-cost production facilities, large workforces, and inexpensive inventory. Even without significant power over chain structures or corporate discourse, some Third World firms are now rising up the corporate hierarchy of profits

and market control at a much faster rate than the traditional Northern MNCs did over the last century. These firms are doing this by taking advantage of cheap local wood sources, low operating costs, and opportunities to integrate into buyer-driven commodity chains in more complementary – rather than principally competitive – relationships with integrated forest and paper companies and big retailers.

Corporate control over the world's forests arises, then, from a lively competition among firms jockeying for technologies, profits, and markets within global commodity chains. The power to do so, however, arises in part from the commoditization and distancing of forest value: where trees are primarily valued as a commercial resource to trade *globally* rather than as an ecosystem or home for local communities.

Corporatized forests

Corporations worldwide have gained power over forests: not so much by fencing natural forests off from local people, who still rely on large volumes of branches and small logs for fuel, but more by controlling the profits from processing, trading, and retailing trees as a commercial resource in a globalized market. Governments have more than acquiesced to the corporatization of forests. Although more than 80 percent of the world's forests remain publicly owned, governments have handed large concessions to big timber companies in exchange for financial rent and employment. In hindsight, these decisions frequently look shortsighted as the benefits are often temporary, in the absence of strong forest regulations only lasting until all of the commercially valuable trees are cut down.

Fuelwood still accounts by volume for about half of global wood consumption. But the global value of forests is no longer mainly as a source of wood for cooking, heating homes, or local building, as was the case for most of the

world even a hundred years ago. Nor do they have much global value as places of worship, for spirits to reside, or even for indigenous people to live. Forests from Brazil to Indonesia and from Siberia to Liberia now supply the world with a global commodity called “timber.”

Many of us picture here a mahogany desk or a cedar house. But timber – or, in more technical terms, industrial roundwood – goes into making a great variety of products.¹⁰ By value, half of the world’s timber goes to make paper and paperboard. Much of this produces things that do not immediately bring to mind a timber product: diapers, milk cartons, toilet paper, and poker cards. As well, half of the world’s paper goes into packaging. Paper packaging protects and brands food, consumer goods, and manufactured parts – from cereal, milk, mangoes, and basketballs to computers, TVs, refrigerators, and auto parts.

Corporations have even more control over forestland in weak regulatory states. Again, this control is not primarily over natural forests as territory or property, but over the commercial value from exploiting these lands. Violence to strong-arm locals out of the way is definitely part of the toolkit of some loggers. And in places like Southeast Asia loggers are commonly protected from prosecution by politicians, military officers, and the police. But corporate land grabs with the goal of long-term control are far more common in the case of agricultural or timber plantations than in the case of natural forests.

For logging companies operating in natural forests in the South, it is often more important to gain short-term access rather than retain lasting control. Because of complex land-tenure conditions, loggers across the global South in fact often have no option but to hold overlapping, informally defined “legal” timber concessions as local patrons hand out – or revoke – licenses. Those who actually log the forests range considerably. Some are locals hired by firms or

traders. Some are private, family-owned firms with a few dozen employees. Some are major Third World companies such as Fibria in Brazil. Some are company affiliates under large umbrella holding companies like Malaysia's Rimbunan Hijau and Indonesia's Sinar Mas Group. And some are MNCs with worldwide operations, such as International Paper (US), Stora Enso (Sweden/Finland), and Oji Paper (Japan).

Regardless, most commercial loggers in these low-income weak states have little interest in long-term management of "their" forestland; instead, they simply harvest as much as possible as quickly as possible. Logging tends to ramp up and become even more destructive when timber prices are high or rising. Mounting uncertainty in future access to a legal concession – from, say, political unrest or an upcoming election – tends to speed up harvesting even more, with no regard for the 30- or 40- or 50-year plans on paper to produce "sustainable timber yields." Loggers generally abandon a site when it runs out of the most profitable commercial timber – or when prices crash, a common feature of the world timber market. Here, a frequent result is an environmental pattern of cut-and-run in an economic cycle of boom-and-bust. The degraded forestland then becomes a target for conversion – mainly for industrial agricultural plantations such as soy, oil palm, or fast-growing tree species such as eucalyptus, pine, and poplar.

Regulations for "sustainable forest management" may look reasonable on the books: yet, with little to no enforcement, much of the so-called "legal" logging is highly destructive. Log prices tend to reflect the cost of cutting down a tree and getting it to a mill, and not any of the longer-term – and much bigger – environmental and social costs. Moreover, by allying with local leaders and corrupt politicians, loggers and traders are able to evade taxes and fees, harvest illegally, and smuggle timber into the global market. This increases corporate and personal profits while further lowering consumer prices and government revenues.

It also leaves already poor places even poorer as employers move on without addressing the long-term environmental and social disruption.

In recent decades this process has been accelerating and deepening even further as the globalization of corporations, financing, trade, and consumption increasingly integrates resource-dependent economies into ones more central to the global economy.

Globalizing timber chains

Timber, like water and food, has always been an essential resource for people everywhere, with only the driest, highest, and coldest lands devoid of forests. Some societies, such as the Phoenicians of 1200 BC and the Minoans on Crete in 1450 BC, ran out of timber. Others, such as the British Empire from the early 1600s to the mid-1900s, enhanced their power by colonizing forests from North America to Africa to South and Southeast Asia. In some ways the globalization of timber production and consumption started during the era of the French, British, and Dutch colonists. Still, even a half-century ago most societies, particularly those in the developing world, obtained sufficient timber supplies by trading wood locally – or at most regionally – from nearby forests.

Today, the picture is totally different. Of the world's 4 billion hectares of boreal, temperate, and tropical forests half are now set aside for "production" (for both direct and multiple purposes). Timber commonly travels across many countries, as it moves through global commodity chains. At least 5,000 wood products are now trading back and forth from South to North and North to South, often many times. A company in Indonesia might turn a log into lumber or pulp and then trade it to another company in China. That company might then turn it into furniture, flooring, or paper, and then sell it to retailers in North America and Europe.

Even this would be a very simple commodity chain, however: most involve far more transactions across far more jurisdictions.

For much of the twentieth century, companies with a home base in a heavily forested Northern country – ones like America's International Paper, Georgia-Pacific, and Kimberly-Clark, Sweden's Svenska Cellulosa AB (SCA), and Finland-Sweden's Stora Enso – dominated the global timber industry. Such companies are still powerhouses, providing fiber, financing, equipment, and markets. Yet their power is diffusing as globalization integrates more developing countries into the world economy, and as the source of logs shifts from the temperate and boreal forests and plantations of the First World to tropical old-growth forests, Russia's boreal forests, and fast-growing plantations in Asia, Africa, and Latin America.

Processing the global South

Few plantations existed 50 years ago and they supplied very little timber. Now they cover hundreds of thousands of hectares and provide about one third of the world's industrial wood fiber – and this amount is gradually increasing. The southern United States remains a core source of the world's plantation wood; but plantations are also expanding quickly in Russia and China. As a result, more than half of the world's timber plantations are in just three countries: China, the US, and Russia. The fastest-growing and lowest-cost timber plantations, however, are in South America (e.g., Brazil and Chile).

Over the last decade, China in particular has been investing aggressively to increase domestic capacity to produce plantation timber. And the future will likely see even more plantations in the global South as companies seek out inexpensive land and overhead. The capacity of corporations to clear vast areas of the South – such as burning down degraded tropical forests – and then control