

**The effectiveness of the 2008 Lacey Act amendment
in reducing the import, trade, and consumption
of timber derivatives in the US that contribute
to deforestation and illegal logging worldwide**

Item Type	Thesis
Authors	Fowler, Alice
Citation	Fowler, Alice. "The effectiveness of the 2008 Lacey Act amendment in reducing the import, trade, and consumption of timber derivatives in the US that contribute to deforestation and illegal logging worldwide". BA Thesis, John Cabot University, Rome, Italy. 2019.
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Download date	2025-03-17 15:43:07
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Link to Item	https://hdl.handle.net/20.500.14490/285



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The effectiveness of the 2008 Lacey Act amendment in reducing the import, trade,
and consumption of timber derivatives in the US that contribute to deforestation
and illegal logging worldwide

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Spring 2019

Abstract

The objective of this thesis is to determine the effectiveness of the 2008 Lacey Act amendment in reducing the import, trade, and consumption of timber derivatives in the US that contribute to deforestation and illegal logging worldwide. The analysis involves deductive qualitative research on the global phenomenon of illegal logging by first outlining the social and environmental issues connected to the illicit practice. The history of the Act is then examined, from its initial implementation in 1900 under Congressman Lacey followed by the 1935, 1969, 1981, and 2008 amendments. Theories by legal and environmental scholars are discussed, followed by major case studies brought forth under the Act. The analysis is then concluded with the understanding that the 2008 Lacey Act amendment has been relatively effective in reducing the flow of illegally sourced wood into the US, which has had positive effects for both environmental conservation and market competition. The final chapter also suggests potential solutions for strengthening the Lacey Act.

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List of Abbreviations

AF&PA	American Forest and Paper Association
AOU	American Ornithologists Union
CITES	Convention on International Trade of Endangered Species of Wild Fauna and Flora
ECA	Export Credit Agencies
EIA	Environmental Investigation Agency
FCPA	Foreign Corrupt Practices Act
FSC	Forest Stewardship Council
FWS	Fish & Wildlife Service
RSPO	Roundtable of Sustainable Palm Oil
UNEP	United Nations Environment Program
UNODC	United Nations Office of Drugs and Crime
WWF	World Wildlife Fund

1 Introduction

Every day, every society across the globe consumes timber in some shape or form. Picking up a box of one's favorite cereal at the grocery store, quickly jotting down important daily tasks on the notepad next to the home phone, chewing on the back of a pencil whilst trying to think: these actions are permitted because of one fundamental natural resource: trees. As an abundant resource in nature, trees are often taken for granted, but the process by which they are manufactured into everyday products is far from harmless. As a consumer society, it is easy to disassociate the products on store shelves from the laborious, often detrimental, process it takes to make such products on a large scale. What the consumer does not see are the wide swaths of forest cleared for timber, which is then manufactured into furniture, paper, and an array of other items used in everyday life. Land clearing of this scale creates a negative knock on effect on the earth's climate, biodiversity, and fragile ecosystems, but it also impacts indigenous communities and economic stability.

In order to combat the environmental impact of over-harvesting timber, the United States amended the Lacey act, a wildlife protection law, in 2008. Initially implemented in 1900 to protect bird species in the US, the Lacey Act has evolved considerably in the century since its establishment. The 2008 amendment included for the first time in history the legal protection of plant species. Though developed in the US, the Lacey Act is the only environmental statute that incorporates foreign laws within its provisions. This means that cases of illegal logging brought to court in the United States can be prosecuted in accordance with the laws in the state of origin from which the timber was harvested. I became interested in this topic initially because I wanted to

explore laws concerning the environment, but the unique ‘international’ quality of this law in particular encouraged me to look deeper into it, so I developed this research question: how effective is the 2008 Lacey Act amendment in reducing the import, trade, and consumption of timber derivatives in the US that contribute to deforestation and illegal logging worldwide? The aim of this analysis is to answer this question by observing the dimensions of illegal logging, dissecting theories concerning the Lacey Act, and following select cases prosecuted under the Act.

Illegal logging is widespread in part because of how much the world depends on wood as a resource and commodity. Wood is the base of more ‘obvious’ items, such as furniture, paper, boats, popsicle sticks, musical instruments, and paneling. However, timber derivatives are snuck into other goods such as chewing gum, rubber balls, sponges, carnauba wax, aspirin, and acne medication. In addition to the products made from wood or tree byproducts, there are a number of foods consumed on a daily basis that come from tree bark: maple syrup, a natural byproduct harvested from the bark of maple trees; and palm oil, a product derived from the palm fruit. Palm oil is a popular ingredient in a variety of foods in supermarkets, but it is also used in soaps, candles, cosmetics, detergents, and biodiesel. Trees are not only a useful commodity for material goods: they provide the planet with clean air, they protect precious soil needed for growth, they grow the food we eat, and they provide shelter to the animals we cherish. In addition, they are a fundamental building block for many industries in society.

As a business, illegal logging dominates a substantial portion of the revenue generated by environmental crimes. An assessment report published by the United Nations Environment Programme (UNEP) and Interpol placed the estimate at around US \$50.7-152 billion annually worldwide (Nellemann *et. al* 2016, 20). It is not a new issue; by the 1990’s, 12.5 million hectares of forest disappeared as a result of illegal logging. “60-70% of tropical timber imported into the

European Union may have been cut illegally” (Liddick 27011, 97). In Gabon, 70% of all logging projects are illegal, while approximately 95% of West Africa’s forests are gone (Liddick 2011, 97).

The trade in illegally sourced wood is fueled by high demand in destination countries such as the United States, China, Japan, and Europe. A mixture of poor governance, corruption, and conflict makes dubious logging practices relatively easy to uphold. The issue is further perpetuated by large timber firms, who collude with military, police, and government officials (Gordon 2016, 111). Indonesia, for example, is heavily affected by illicit logging within its abundant forests rich in natural resources, which is allowed to proliferate due to institutional weakness and corrupt governance. It is estimated that around 70 percent of Indonesia’s territory consists of forest (Santoso 2012, 25). Hasan Kleib, Director General of the Ministry of foreign affairs in Indonesia, cited a 2010 report published by the UNODC Transnational Organized Crime Threat Assessment in his speech at the fourth conference of States Parties to the United Nations Convention against corruption in 2011. The report stated that “the operation of illegal logging involves many actors- including officials- and it has become difficult to disentangle legitimate and illegitimate commerce in [Indonesia]” (as cited in UNODC, 2011, p. iv).

Cruden and Gualtieri (2016) frame the issue of illegal logging as one that:

Takes on many forms, including outright theft of timber from public or private forests, exploitation of endangered and legally protected wood species, and evading timber taxes and royalties by, for example, logging outside designated and approved areas in excess of permits (29).

It is not limited to the cutting down of protected trees; in fact, the problem stretches across an array of global issues that are indirectly affected as a result of poor logging practices. Often, people may

be unknowingly financing or perpetuating the illicit timber trade by purchasing products manufactured in poorly governed, corrupt states heavily affected by environmental crime. Even though illegal logging occurs mainly in developing states, these crimes hit closer to home than one may expect. It is likely that furniture made from illegally sourced wood decorates the homes of many families, particularly if the furniture in question comes from large chain stores such as IKEA. The Swedish-founded multinational conglomerate is “supplied in large part by Chinese manufacturers and Russian wood- but the company has only *two* foresters in China and *three* in Russia to ensure compliance with logging regulations” (Liddick 2011, 96). Illicit logging is especially of concern to U.S. companies, which are “robbed of \$460 million a year as prices are depressed 7-16% due to the infusion of illicit timber into the marketplace” (Liddick 2011, 97). Furthermore, countries riddled with illegal logging such as Indonesia launder their raw timber in Malaysia, Singapore, or Hong Kong, where they are finished and finally exported as plywood, sandwood, or furniture into Japan, Europe, or the United States.

1.1 Dimensions of illegal logging

Illegal logging is difficult to combat because of the long, complex supply chains involved in harvesting and manufacturing timber products. Wood-based products are rarely transported in an entirely illegal manner, as they often move through the “same channels as the licit trade, along the same highways to the same seaports... and sometimes mixed with licit timber” (UNODC 2013, 90). For example, many hardwoods and softwoods harvested in Honduras and Nicaragua are under-declared, especially when passing into the Dominican Republic and the United States (Liddick 2011, 99).

Both legitimate networks and organized crime groups play an important role in the realm of illegal logging. A UNODC Transnational Organized Crime Threat Assessment report, published in 2013, stated that “the majority of the illegal trade is carried out by formal business enterprises operating through fraudulent methods. Corruption is often at play” (UNODC 2013, 89). Remote, weakened areas are plagued by unemployed youth, guns, drugs, and illegally sourced timber as the only means to sustain the economy. The Russian Far East, for example, is controlled by ‘timber mafias’ that collect rare, expensive, and protected timber to sell to customers throughout Asia and the United States (Abrahamson 2015, 48). This will be further explored when analysing the case of Lumber Liquidators.

It is also important to note the role of export credit agencies (ECA) that indirectly facilitate illegal logging. These private or para-state institutions act as intermediaries between national governments and exporters; they provide government-subsidized loans to “companies looking to conduct business in countries where the business climate is too risky for conventional corporate financing” (Liddick 2011, 100). While ECA support does not directly aid the timber trade, they do provide substantial funds for the pulp and paper sector, “thus indirectly contributing to illegal logging by boosting the demand for raw timber far beyond the local legal capacity to meet it” (Liddick 2011, 100).

1.2 Environmental impacts

That illegal logging causes widespread environmental destruction is a self-evident truth. Tree species such as merbau, teak, and mahogany have all seriously declined in the last two decades, and the loss of habitat has driven a number of animal species to the “brink of extinction” (Liddick 2011, 102), such as Sumatran tigers, red pandas, leopards in Burma, and the Bornean

orangutan. Once common all throughout Southeast Asia, the orangutan is now only found in certain areas on the Islands of Sumatra and Borneo (Schoeman 2015, 1,090).

Illegal logging also contributes to soil erosion, which heavily impacts hydrological systems. One of the many functions of trees is to protect the layer of topsoil, which reduces water runoff. Without an adequate layer of topsoil, soil risks losing essential nutrients needed for the growth and maintenance of flora. Some endangered species of flora include rare plant species with valuable pharmacological properties; without them, advancement in the medical field may be hindered.

1.3 Economic impacts

The global economic losses as a result of illegal logging are vast. In Indonesia, for example, illegal deforestation for industrial agriculture has cost the nation \$4.9 billion per year, and that is without taking into consideration the impact of forest and peat fires on economic activity and human health, which was recorded at \$16 billion in high-fire years like 2015 (Wolosin and Blundell 2018, 1). These estimates are unclear, however, given the difficult nature of analysing shadow economies. There are other indirect losses as a result of the illegal timber industry. “Opportunity costs (expenditures that would not be necessary in the absence of illegal logging) associated with monitoring and law enforcement siphon funds that could otherwise be used to foster sustainable forest management” (Liddick 2011, 103). Poverty-stricken states rich in natural resources will often allow foreign direct investment in their local timber trade, but most of the time the revenue generated from foreign investors is expatriated, “resulting in additional national losses due to the economic ‘multiplier effect’” (Liddick 2011, 103). In essence, the ripple effect caused by illegal logging touches upon broader societal problems. Corruption and patronage undermine

the role of important actors in the timber production chain, and ensure an easy way for criminals to bypass the legal system in place to protect both market competition and the environment.

1.4 Human rights abuses

Indigenous communities are among the groups most affected from illegal logging. Corruption leads to uneven wealth distribution, so they tend to suffer loss of state expenditure more than other social groups. If they receive any kind of benefit from the timber trade, it is usually temporary. For example, illegal logging in the Philippines may attract young men keen on the outdoor life and ‘easy money’, but at the same time it has caused alarm and concern for other people in communities that live along the forest frontier. Van der Ploeg et. al (2011) outlined a number of negative impacts of illegal logging in the Philippines: farmers have complained about logging trucks destroying farm-to-market roads; fishers claim that catches have declined as a result of erosion; and the Agta (an indigenous group native in the Philippines) point out that loggers have disturbed wildlife, destroyed swiddens, and harassed women (208).

The impact on local communities is not limited to economic decline, but social and cultural disintegration as well. Illegal logging has created social cleavages, leading to the alienation of entire communities. The emergence of rival gangs and corrupt leaders has eroded traditional institutions, dismantling any semblance of social security for disadvantaged groups. The danger illegal logging poses to indigenous groups is illustrated by the violent events in Peru’s Alto Purus National Park, home to both valuable broadleaf mahogany trees and the last uncontacted tribes on earth (Gordon 2016, 112). These tribes live in voluntary isolation, and have been under the protection of the Peruvian government since 2004. However, since Brazil’s decision to cease mahogany exports in 2001, Peru has taken its place as main exporter, severely threatening the

flora, fauna, and isolated communities dependent on Alto Purus (Liddick 2011, 103). By 2004, Peru's mahogany trees had decreased by 50%, with a number of active logging camps present in prohibited areas. Unfortunately, policing the national park is a daunting task; forestry engineers assigned to control the area are often threatened with violence, and there have been numerous violent outbursts between uncontacted people and loggers, resulting in deaths on both sides (Gordon 2016, 114).

1.5 Conflict timber

On a macroeconomic level, illegal logging is present predominantly in weak, failing, or failed states with heavily forested regions rich in natural resources. These states are generally riddled with conflict, and illicit timber has become a reliable commodity used to finance wars. According to Liddick (2011):

Failed and failing states where the government is incapable of systematically making and applying rules that citizens accept as legitimate enhances illegal timber production and the subsequent growth in illicit revenue used to finance conflicts (105).

The use of 'conflict timber' has been observed in Burma, Cambodia, Indonesia, Liberia, Vietnam, Nepal, and the Philippines. For example, "illegal logging was a primary source of funding for the civil war in Liberia, initiated by Charles Taylor, now a convicted war criminal" (Gordon 2016, 114).

1.6 Why is the 2008 Lacey Act important for combating illegal logging?

Illegal logging by nature is a difficult crime to tackle, aggravated by overlapping and conflicting governmental responsibilities that give corrupt officials the opportunity to circumvent the law (Liddick 2011, 108). Though illegal logging is not a widespread phenomenon *within* the US, they are the world's largest importer and end users of wood regardless. Moreover, the US is "one of the world's largest consumers of forest products. As a result, [they] have a tremendous role to play in tackling illegal logging" (WWF 2013). The Lacey Act is an important development in the battle to end the illegal harvest of timber. The amendments to the Act introduced in 2008 elevated it to becoming the world's first law to effectively ban the import, trade, and export of illegally harvested wood products. Under the Lacey Act:

timber is considered illegal if it was taken, possessed, transported, or sold in violation of laws that protect certain trees, related to timber theft, or regulate the harvesting of timber in licensed areas or protected areas, including the contravention of the terms authorised harvested (Union of Concerned Scientists 2015, 2).

Contraventions of the terms of authorised harvesting includes, but is not limited to: cutting more trees than permitted, cutting juvenile trees, cutting in protected zones, or cutting protected tree species (Union of Concerned Scientists 2015, 2). Furthermore, the 2008 amendment made declarations for wood products a requirement, in which both the scientific name of the plant species and the country in which it was harvested must be disclosed. Currently, the Lacey Act is the only US law that has the ability to incorporate foreign environmental laws when pursuing a case of illegal logging. It also indirectly addresses other issues connected with illegal logging: environmental destruction, economic decline, and human rights abuses. In theory, the Lacey Act

should act as a security net for endangered species and protected biodiversity. Protecting the environment *should* also technically protect the interests of indigenous communities that may fall prey to powerful timber companies seeking to take advantage of their land. In addition, the Lacey Act should *theoretically* return balance to market competition by reducing the flow of cheaper, illegally sourced wood. However, just because it appears to be a structurally sound law on paper does not guarantee its performance in practice. There have been a number of problems addressed in the literature evaluating the Lacey Act. The law's obscure language, particularly when addressing how to comply with its standards, has stirred fear and doubt among timber importers and exporters on how to efficiently practice due care. The rigid fines for violating prohibited acts have also raised concerns about the Act's capability to over-criminalise.

This analysis will be structured as follows: chapter two will examine the history of the Lacey Act, from its initial implementation to the subsequent 1935, 1969, 1981, and 2008 amendments. Chapter two will also include a brief overview of the language of the Act. This includes definitions of key terms, exceptions to the terms, prohibited acts, and penalties for corresponding violations of prohibited acts. Chapter three will analyse the theories put forth by leading theorists on the Lacey Act, outlining both the evidence in support of the law in terms of environmental and economic benefit, as well as the arguments against the Act's effectiveness. Chapter four explores the main cases successfully prosecuted under the Lacey Act, followed by an analysis of the Act's ineffectiveness in addressing the problems surrounding palm oil production in Indonesia. The final chapter will propose potential solutions to loopholes in the framework of the Act, and conclude the analysis by determining whether the 2008 Lacey Act is, in fact, effective in reducing the import, trade, and consumption of timber derivatives in the U.S. that contribute to deforestation and illegal logging worldwide.

2 Chapter one: History of the Lacey Act: from 1900 to today

The importance of the Lacey Act in addressing illegal logging is best explained through an analysis of its history. It did not begin as a statute designed to address illegal logging; rather, its first implementation in 1900 was intended to protect bird species in the US. The shift from a narrow domestic law to an all-encompassing international environmental law is a result of over one hundred years of amendments, which will be explored in this chapter. The first section of this chapter will discuss the environmental concerns of the United States prior to 1900, and the reasons why Congressman Lacey decided to bring his bill to the House of Representatives. The chapter will then go on to discuss the provisions of the 1900 bill, and the subsequent 1935, 1969, 1981, and 2008 amendments.

2.1 1900: first implementation

The Lacey act was first proposed by congressman John Fletcher Lacey on April 3rd, 1900. He was an avid activist for the protection of birds, being a bird lover himself, and vehemently opposed the historic practices of bird hunting. In his speech to the House of Representatives, he made an important claim that still rings true well over a century since its delivery:

Man's attempt to change and interfere often leads to serious results. We have given an awful exhibition of slaughter and destruction, which may serve as a warning to all mankind. Let us now give an example of wise conservation of what remains of the gifts of nature (Cart 1973, 4).

When he brought his argument to the House of Representatives, the bill was passed, establishing the first ever nationwide wildlife statute.

Some of the Act's early provisions were controversial, such as restricting the marketing for wildlife and "establishing stiff fines for interstate shipment of dead bodies or parts thereof of any wild animals or birds" (Cart 1973, 4) that were killed out of season or otherwise in violation of existing state laws. However, the establishment of such a statute was necessary due to two major wildlife issues that dominated the beginning of the 20th century. The first was the steadfast depletion of game birds and mammals, and the second was the systematic destruction of many other non-game species of birds. Prior to the passing of the Lacey Act, there were two bills addressing a similar situation: the first one, passed in 1896, was intended to "inhibit interstate game markets" (Cart 1973, 4), given that many people could easily bypass state wildlife laws simply by crossing state borders. The second, passed in 1898, limited the "use of birds for ornamental purposes" (Cart 1973, 4). It became apparent that these laws were not enough to combat wildlife depletion, so many bird lovers, activists, sportsmen, and scientific naturalists alike all came together to bring change in protective legislation towards America's wildlife, even though they each did so for different reasons. As it was, overhunting was beginning to encroach too far on the dwindling numbers of birds.

The first to protest against hunting practices, paradoxically, were sportsmen's groups, which advocated for the passing of state laws that would "protect game species during breeding seasons" (Cart 1973, 5). Though they were successful in persuading both states and owners of wildlife in drafting and implementing state statutes, the lack of proper enforcement of these protective statutes led them to then create the first federations of sportsmen's clubs implementing uniform game codes in 1874. They were, in fact, the "largest, most effective group supporting the Bill" (Cart 1973, 6).

Scientific naturalists, on the other hand, provided a rational base of knowledge which could be used to assault the ignorance that often shrouded the value of wildlife. The American Ornithologists Association (AOU), founded in 1883, was the “most efficient force for non-game bird protection in the country” (Cart 1973, 6). A great deal of support came from nature loving citizens themselves, who were guided by strong humanitarian and moral principles that opposed the cruelty that came from killing animals. Their principles often came head-to-head with those of sportsmen clubs, who, despite vouching for the protection of birds, were doing so for hunting reasons.

Another major concern raised by Lacey towards the end of the 1800’s was the fast decline of insectivorous birds, as well as the rise of invasive bird species. If there were fewer birds alive to consume insects, more insects would continue to feed and thrive off crops, which would fundamentally destroy large portions of farming and agriculture. Lacey formulated three possible motives behind the decline of insectivorous birds: The introduction of foreign invasive species that were displacing native bird species; illegal “pot-hunting” (which would be considered poaching today); and the growing demand for bird feathers to be used as decorations for women’s clothing (Dieterle 2014, 1,286). In response to these concerns, Congressman Lacey set out three principles upon which to build the foundation for the Act:

Giving the Secretary of Agriculture the authority to introduce or restore wild birds in areas in which their numbers are dwindling; giving the Secretary of Agriculture the power to prevent the introduction of certain foreign species; and to ‘supplement’ state laws that protected wildlife by ‘forbidding interstate commerce’ in birds or animals that were killed or caught in violation of local laws (Dieterle 2014, 1,286-1,287).

The last purpose was arguably the most important of the three, given that it addressed the legal loophole which pot hunters took advantage of in order to bypass local and state laws. Once their game was beyond state borders, they were safe to do with it as they pleased since they were no longer within the jurisdiction of the state in which they had broken the law. Lacey felt particularly strongly about the nature of pot hunters; in his speech to the House of Representatives, he branded them as “the man who should have no friends on this floor or anywhere in the United States of America”, and concluded by denouncing them as “the relentless enemy of all human life” (Dieterle 2014, 1,287). Unfortunately for all wildlife activists and sportsmen alike, pot hunters were frustratingly outside the confines of legislation, which is partly due to the limited control of state officials in regards to interstate wildlife trafficking. Furthermore, the selling of illegally hunted birds in another state was not subject to legal repercussions in the state in which it was being sold simply for the reason that states could not pass laws concerning interstate commerce. This is due to the “state-ownership doctrine” which gave states the “exclusive power to restrict the export of their wildlife, because each state was deemed to own the wildlife found within [its] borders” (Dieterle 2014, 1,287). These flawed underpinnings of state law created an enforcement gap in the legal structure that was in need of repair with new legislation. Proponents of the Lacey Act used this as evidence to support their claims that wildlife trafficking was creating undesirable effects that stretched past the moral dilemma of killing animals. Legal loopholes like that which pot hunters used also made the legal system seem like a brutal farce in terms of enforcement power, which in turn made federal authority seem less credible. Lacey had drafted his bill as a means to fill in the gaps left in state wildlife laws, as well as providing local game wardens the necessary mechanisms to combat pot hunting.

2.2 1935 amendment

By 1935, the Lacey Act underwent its first amendments, transforming it from merely a supplement to state laws to encompassing a wider scope. The initial Act had some limitations in terms of ways in which wildlife was transported (it only included railroad and waterways), but with the inventions of the automobile and the airplane, some modifications had to be made. In addition to broadening methods of transportation, the 1935 amendment also “set up a broader scheme of federal enforcement and punishment” (Dieterle 2014, 1,288) by incorporating a clause allowing federal agents to enforce the Act’s provisions, and raising the penalties for violations. During the drafting of the 1935 amendments, it was also proposed that officers of the Department of Agriculture should be granted the authority to make arrests for violations of the Act. The Congressional record of 1900 shows that this proposition never came to fruition, because Lacey had intended for the Act to only be a supplement to existing state laws. Despite this, the Act became a tool under the control of the Federal government, effectively turning it into the kind “national game law” that Lacey feared was unconstitutional. He was very careful to avoid creating a national game law so as not to undermine the concept of federalism and state’s rights.

Congress had elaborated upon the penalties for Lacey Act violations, increasing the fines to a maximum of \$1,000 (which would be today’s equivalent to \$16,000) and a possibility of imprisonment, which could go up to six months. In addition to fines and potential imprisonment, the 1935 amendment also added a forfeiture clause that allowed federal government to seize any wildlife in violation of the Act’s provisions. It was expanded to include “any person, firm, corporation, or association”, as opposed to being limited to only common carriers who transported wildlife. The amendments of 1935 were also the first amendments to make violations of foreign laws illegal (Krost 2013, 58). It came to light that incorporation of foreign laws for violations of

protected plant species were unequal in terms of enforcement power in comparison to the strong defense provided for fish and wildlife. Only violations of state laws regarding plants could be prosecuted, whereas fish and wildlife violations under both state and foreign laws were prosecutable. Another issue was the restrictive definition in regards to what constitutes a “plant”, whereas both fish and wildlife definitions covered a broader scope. This would provide a fundamental precursor for the changes that happened in 2008.

2.3 1969 amendment

In 1969, the Act was amended once again as a response to the growing threat mankind’s practices posed to endangered species. This, in turn, also pushed the state to draft “the nation’s second version of an Endangered Species Act” (Dieterle 2014, 1,288). A report by the Senate emphasised concerns that humans were eradicating wildlife at an alarming rate; by 1969, around one or two species of birds and mammals were disappearing each year. The reasons behind such fast decline were categorised by Congress as three main elements: the destruction of the habitat in which certain animals lived; pollution of air and water; and the indiscriminate killing and capture of wildlife for commercial or sporting purposes (Dieterle 2014, 1,289). To provide more context on the crisis of wildlife trafficking, the Florida black market for poached alligators was estimated to be worth around \$1 million by the 1960’s. Congress aimed to expand the act to protect more species, which included reptiles, amphibians, mollusks, and crustaceans. Another alteration to the act was a modification to its *mens rea* requirement, which was strengthened to “knowingly and willfully” (Shelley 2012, 551). This was fundamental for ensuring that only criminals with the intention of violating the law would face criminal prosecution.

The amendments of 1935 and 1969 are interesting because on the one hand, they strengthen the act's enforcement power and make penalties far harsher than Lacey had initially intended in 1900; on the other hand, the modification of the *mens rea* requirement ensured that unknowing, unintentional conduct was protected from criminalization. It was the amendments of 1981, however, that truly shifted the Act from being a limited national law to an expansive international environmental statute.

2.4 1981 amendment

The 1980's were more concerned with the growing trade in fish and wildlife occurring within state borders, which had been uncovered in investigations conducted by the Department of Justice and the Department of Agriculture. They were able to reveal that this trade had indeed become a vast, lucrative business in need of regulation, but the Fish and Wildlife Service added that it would be impossible to gauge accurate numbers. The Department of Justice's investigation concluded that an estimated \$50 million to \$100 million was being generated in the illegal wildlife trade per annum (Dieterle 2014, 1,289), with a large portion of this trade being controlled by highly organised criminals that were most likely also dealing in drugs, weapons, and other illicit or illegal goods. The consequences of this trade affected both the environment and the economy, and it started to create concern over whether the Lacey Act was providing an effective deterrent to the proliferation of environmental crimes. Some argued that the penalties for violations were too low considering the high profits criminals and traffickers were making from the illegal wildlife trade. Furthermore, federal prosecutors were facing difficulty in prosecuting criminal violations under the "knowingly and willfully" clause of the *mens rea* requirement, which courts interpreted as "defendants [that] have both specific knowledge they were breaking the underlying predicate

law... as well as specific knowledge they were violating the Lacey Act itself” (Dieterle 2014, 1290). Though intended as a protection mechanism for those who may have unknowingly violated the Act, in practice it became clear that determining whether the violation was conducted knowingly was an unreasonably difficult claim to prove.

In order to put more teeth in the Act, the 1981 amendments involved incorporating the Black Bass Act and the Lacey Act as one uniform statute that could address both fish and wildlife. These amendments also included plant life for the first time as well, but limited the scope to plants that were indigenous to states, were listed on any one of the three CITES appendices, or were part of any state endangered species lists. The *mens rea* requirement was modified once again, shortened to simply “knowingly”. This, more than any other alteration the Act underwent, is what causes the greatest concern in terms of the potential threat of over-criminalisation.

Groups such as the National Wildlife Federation, the Humane Society, the Wildlife Management Institute, TRAFFIC, and the Society for Animal Protective Legislation were avid supporters of the 1981 changes (Dieterle 2014, 1,291). This newfound support backing the 1981 Lacey Act was a far cry from the sportsmen and bird lovers of the original 1900 provisions, which marked the Act’s shift from anti-poaching regulations to a law that was being used to combat the fraught injustices plaguing the world’s wildlife. The initial bill was never intended to be considered part of international law, but by 1981 the original intention had all but been forgotten.

2.5 2008 amendment

The 2008 amendment signified a complete detachment from the Act’s original purpose. In response to the growth of the illegal logging trade, the Act was amended once more to include the Food, Conservation, and Energy Bill of 2008. Prior to its implementation, the American Forest

and Paper Association issued a report that outlined the unnerving statistics regarding the illegal logging market. It estimated that up to 30% of the global hardwood and plywood yield could be of dubious origin (Dieterle 2014, 1,292). Furthermore, some international timber markets were believed to have up to 90% illegal timber (Dieterle 2014, 1,292). As with all black market statistics, it cannot be known for sure what the true extent of the trade is, and the report made sure to attach a disclaimer which admitted that estimates were founded on “anecdotal information” that was “likely exaggerated” (Dieterle 2014, 1,292). As awareness of illegal logging grew, so did backlash over deforestation, global warming, economic instability, human rights violations, and widespread poverty. Part of the problem was the United States “no-questions-asked import policy” (Dieterle 2014, 1,293), which was immediately addressed by expanding the Act from covering certain types of endangered species to “any wild member of the plant kingdom”.

In addition to the environmental organizations backing the new 2008 amendments, there were new additions such as the National Hardwood Lumber Association, the Society of American Foresters, the Hardwood Federation, the International Brotherhood of Teamsters, and the United Steelworkers. Support from hardwood and flooring industries came from the growing unease over the international logging trade and the potential damage it could cause to domestic jobs and labour unions. Senator Ron Wyden, one of the primary supporters of the 2008 amendments, asserted that foreign hardwood and plywood imports, such as those that arrive from China, were threatening national businesses and the national economy (Dieterle 2014, 1,293). In order to level the economic playing field, it was imperative that the United States adopt legislation that both protected the interests of national industries as well as push out economic competitors and their suspicious practices. Violations for the 2008 Amendment concerning plants involved two essential components:

a plant being taken, harvested, possessed, transported, sold, or exported in violation of United States law or the law of a foreign country; and a person or company importing, exporting, transporting, selling, receiving, acquiring, or purchasing this illegally sourced plant in United States interstate or foreign commerce. (Shelley 2012, 552-553).

Both elements must be present in order to constitute a violation of the amendment's provisions. It is important to note that while the Lacey Act does incorporate foreign laws as a means of protecting the flow of illegal goods into the United States, it does not impose state or federal laws of the United States on to foreign nations. However, it can use foreign laws to criminalise individuals and corporations in the United States. The use of foreign law has been subject to much debate in recent years; compliance with the Act is made all the more difficult when corporations are unaware of all the foreign laws addressing illegal logging. Just in one state alone, there can be thousands of laws addressing the matter, which means that in order to fully protect oneself from criminalisation, one must be aware of all national laws as well as thousands of foreign laws.

The 2008 amendments added in new regulations which required that importers of plants must make a declaration for each plant species they bring; this declaration must include the scientific name of the plant, a description including the value of the plant, the quantity of the plant, and the plant's country of origin. While these declarations may seem relatively straightforward, it became an issue when timber importers had to draw up declarations for wood products that were made from a mix of timber, or if their wood products had no known origin. In the event that the wood product was mixed or unknown, the amendment required that *every possible* species of wood that could be present in the product must be listed, and every *possible country* of origin must also be listed. Failure to comply with the declaration requirements could lead to heavy fines or possible

imprisonment, as well as forfeiture of all wood products. While the new amendments were definitely more thorough than the provisions laid out by its predecessors, it drew concern from companies and individuals who were unsure of how to draft proper declarations for their wood products. This will be further explored when looking into the theories of over-criminalisation and the subsequent cases of Gibson Guitar and Lumber Liquidators in the following chapters.

In conclusion, the Lacey Act has been subject to a number of changes since its implementation over a century ago. The original purpose was intended to protect bird species in the United States, but over the years it has strayed further and further from Congressman Lacey's original purpose. This is not to say that the Act's changes are inherently negative, it simply means that it has adapted in accordance with the needs of America's wildlife and has expanded in response to global concerns. It is a peculiar law precisely because it has switched from being domestic to international in a relatively short amount of time. Through an analysis of its history, it has become abundantly clear that without it, global cooperation to combat illegal logging would be a perilous endeavor with a lower rate of success. Though there are still a number of issues that need to be addressed within the law's provisions, it has shown itself to be a rather dynamic statute that is open to new interpretations.

3 Chapter two: Language of the Act

For the purpose of understanding the following chapters, it is necessary to outline the most pertinent definitions within the Act. At its core, the Act provides that it is unlawful for any person to import, export, transport, sell, receive, acquire, or purchase any fish or wildlife or plant taken, possessed, transported, or sold in violation of any law, treaty, or regulation of the United States or in violation of any Indian tribal law whether in interstate or foreign commerce (16 USC 3371-3378).

3.1 Definitions of plant

To put a finer point on the terms provided, “plant” and “plants” refer to any wild member of the plant kingdom, including roots, seeds, parts, or products thereof, and including trees from either natural or plants forest stands (16 USC 3371-3378). There are, however, some exceptions to the term. It excludes common cultivars, except trees, and common food crops (including roots, seeds, parts, and products thereof; any scientific plant specimen that is to be used only for lab or field research; and any plant that is to remain planted or to be planted or replanted. (16 USC 3371-3378).

There are also exceptions to the application of such exclusions. Exclusions do not apply if the plant is listed in an appendix to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); if the plant is an endangered or threatened species under the Endangered Species Act of 1973; or if the plant is listed in accordance with any state law that provides for the conservation of species that are indigenous to the state and are threatened with extinction. (16 USC 3371-3378)

3.2 Prohibited acts

It is unlawful for any person to take plants from a park, forest reserve, or other officially protected area; from an officially designated area; or without, or contrary to, required authorization. It is also unlawful to take, possess, transport, or sell plants without the payment of appropriate royalties, taxes, or stumpage fees required for the plant by any law or regulation of any state or any foreign law. (16 USC 3371-3378)

3.3 Penalties

Any person who engages in the activities outlined above or has not exercised due care may be assessed a civil penalty of no more than \$10,000 for each violation provided the plant in question has a market value of less than \$350. Each violation is considered a separate offense not only in the area in which the violation occurred, but also in the area from which the person in question may have taken or been in possession of said plants. Any sale, intent to sell, purchase, or intent to purchase plants with a market value exceeding \$350 shall be fined no more than \$20,000 or face imprisonment of no more than five years, or both (16 USC 3371-3378).

3.4 Who can enforce the Lacey Act?

The Secretary, the Secretary of Transportation, or the Secretary of the Treasury. They may also utilize the services of any other Federal Agency or any State Agency or Indian tribe for the purposes of enforcement (16 USC 3371-3378).

4 Chapter three: Theories concerning the Lacey Act

Amidst the intense political and social turmoil characteristic of the United States in recent years, feelings of disquiet and anxiety about the state of the environment have unfortunately taken a backseat in America's political discourse. Ignoring an issue does not negate its existence; if anything, it creates more space for the problem to proliferate unabated. Illegal logging is most commonly associated with widespread deforestation, which is largely attributed to developing nations with vast expanses of wilderness upon which they are free to engage in illicit environmental activities. These crimes, however, do not remain isolated within the rainforests of the global 'south'; in reality, these states simply act as the supplier fulfilling a growing demand for wood in wealthier, developed nations. In fact, the United States is the number one consumer of wood products today; it is also the first country to introduce legislation banning the import and sale of illegally sourced wood products. The 2008 Lacey Act amendment has garnered as much support as it has backlash. This chapter will follow the arguments of six scholars: Rachel Saltzman (2010), Francis Tanczos (2011), Wesley Shelley (2012), Matthew White (2013), Sarah Gordon (2016), and Jonathan Gonzalez (2016). The aim of this chapter is to explore and distinguish the amendment's weaknesses and suggest potential solutions.

The scope of the 2008 Lacey Act amendment has been thoroughly questioned by experts on the issue and has received a fair amount of criticism. Tanczos (2011) postulates that the establishment of the act came as a response to economic interest and foreign competition- that is, the act in itself was established as a means for levelling the playing field between domestic and foreign timber markets (556). He asserts that timber businesses in the United States are jeopardised by the influx of cheaper, albeit dubiously, harvested timber exports from China (Tanczos 2011,

556). The lack of regulation towards illegal logging has led to a sharp annual decrease in tax revenue for both developing countries and the United States. To better frame the issue, a report published in 2004 by the American Forest and Paper association (AF&PA) estimated that developing countries suffer between \$10-15 billion annual loss in tax revenue, whereas the United States loses closer to \$460 billion annually (Tanczos 2011, 556).

The concern for the potential economic repercussions is one shared by many, but not all. As opposed to Tanczos (2011), Gonzalez (2016) argues that the Act is fundamental for establishing global environmental cooperation (324). The issue of environmental destruction has created a ripple effect in numerous sectors of society- economic, social, and political. Illegal logging causes a significant loss in biodiversity, the destruction of fragile ecosystems, rising CO2 emissions, air and water pollution, and the destruction of indigenous communities. Compliance with the Lacey Act is imperative if humans intend to prolong their existence for as long as possible. Moreover, he points out that global efforts are important due to the understanding that transnational wildlife crime flourishes in developing nations eroded by corruption and institutional weakness. Impoverished nations forced to rely on an unstable economy will often turn to wildlife trafficking and illegal logging as a means to support their families. Furthermore, corrupted government officials and military officers will often “take advantages of the weaknesses of post-civil nations” (Gonzalez 2016, 334) and exploit illegal markets for personal gain.

Gordon (2016) builds upon the issue of corruption within developing countries. She articulates that corrupted officials can easily be bribed in order to obtain a timber concession or extend existing concession, approve a timber processing venture, or avoid payment of fines (114). Illegal logging cannot be fought with foreign laws alone; they are not regulated or enforced enough

to make a difference in eradicating crime. The incorporation of foreign law under the Lacey Act is fundamental, and for that there needs to be collaboration among states.

The incorporation of foreign law into US policy is also met with a great deal of suspicion. White (2013) is critical of the Act and its tendency towards over-criminalization. He maintains that interpreting foreign law under the Lacey Act can lead to major setbacks for defendants; courts interpret foreign law quite broadly, sometimes to mean more than what is actually stated in foreign statutes (388). In many cases, violations are treated with far more severity under the Act than they would be under foreign environmental law. Furthermore, he outlines the key differences between prosecuting illegal timber and ‘historically regulated items’ under the Act, such as endangered wildlife, where primarily the differences lie within the supply chain. Wildlife trafficking supply chains are relatively narrow, direct, and straightforward. On the other hand, wood is found in a variety of things, such as flooring, paper, charcoal, furniture, and musical instruments. They are also processed in a number of factories and pass through a supply chain that is considerably more complicated than that of ivory, for example. He states that it would be “absurd to subject someone to federal prison, revoke their voting privileges, and administer all the other ramifications of a felony conviction over broom handles, wooden spoons, or guitars” (White 2013, 392). What his argument fails to mention is that large fines and the threat of federal prison are not intended to see the failure of industries, but rather are meant to act as deterrent to potential crime. Gonzalez (2016) agrees that the Act certainly has potential for over-criminalization, but recent surges in illegal activities such as overseas poaching has created a stronger argument in favor of the Lacey Act as a ‘deterrence mechanism’ (Gonzalez 2016, 324).

Since its implementation in 2008, there have been a number of controversial court cases branded as examples of over-criminalization. One industry particularly affected by the amendment

is that of musical instruments. Instrument manufacturing companies were concerned about what these new restrictions would mean for their business. The most desirable woods for instrument making are mostly those protected under the Lacey Act. In his analysis, Shelley (2012) analyses the cases of A-440 Pianos, Inc. and Gibson Guitar Corporation. In September 2009, A-440 Pianos fell under the inspection of the Fish and Wildlife Service (FWS) due to suspicion of their piano keys being made of illegal elephant ivory, despite the fact that the ivory in question was over a hundred years old. The issue was not whether the ivory used was old enough to be exempt from the Act, but whether A-440's declaration paperwork was filled out to the satisfaction of the Act's requirements. They were found guilty, leading to a three-year period of probation, forfeiture of all ivory products, and a \$17,500 fine.

Perhaps the most controversial case is that of Gibson Guitar Corporation. The headquarters were raided by federal agents on two separate occasions: first in 2009, and again in 2011. Shelley uses these two examples to frame the potential risk for over-criminalization under the Lacey Act. He argues that compliance with the provisions of the Act is difficult for timber corporations due to the ambiguity of its due care standard. This case will be further dissected in chapter five.

Gonzalez (2016) argues that while the Act can be interpreted in excessively harsh ways, there have been occasions in which it has been effective. The most recent case of illegal logging occurred in 2016 involving Virginia-based Company Lumber Liquidators Inc. They were brought to federal court for violating the Lacey Act due to their use of illegally logged timber from protected areas in the Russian Far East. These provide home to the last remaining Siberian tigers and Amur leopards, therefore the forests and trees in Russia are fundamental for ensuring the preservation of an already fragile ecosystem. Moreover, the lumber obtained from illegal practices also included Mongolian oak, which is a type of timber protected under CITES. Thanks to a

successful prosecution in accordance with the Lacey Act, Lumber Liquidators paid over \$13 million in criminal fines. While the Act can be difficult to interpret for those trying to follow due care, its aggressive policies can also have the desired effect against those who take advantage of legislative weakness abroad.

One recurring issue raised across the board within the literature is the lack of a clear ‘due care’ standard. At present, the standard is “intended to ensure that an importer must act with the care that a ‘reasonably prudent person would exercise under the same or similar circumstances” (Gordon 2016, 121). While it is understandable that a law must be vague so as not to hinder agents of enforcement in their ability to prosecute, the problem arises when there is no clear definition as to what constitutes a ‘reasonably prudent person’, and no clear way to provide proof of due diligence in practice.

Two years after the Act went into effect, Saltzman (2010) published her review aimed at establishing a better understanding of due care under the Act. Her efforts to formulate an efficient method of conformity, however, fall short when actually put into practice. She discusses three possible ways to practice due care: compliance with industry custom; responsiveness to legality standards and conservation hotspots; and good faith efforts to monitor the supply chain (5, 6, 7). Compliance with industry custom refers to following a pattern of behaviour already established by other timber companies: this seems reasonable enough, except for the fact that a legal standard for logging has not been around long enough to create a binding custom. This is especially pertinent when observing the lack of present case hearings. When there is little information available in terms of court cases and judicial decisions it is hard to establish a customary rule that all wood producers and importers can follow. Responsiveness to legality standards and conservation hotspots is complicated for a number of reasons: legality standards are established to help foreign

companies comply with domestic laws, but it not uncommon for these standards to be disregarded by both foreign and domestic actors. Corruption holds firm in the politics of many supply nations, so it is unreliable and even a bit idealistic to assume adherence to legality standards is enough to ensure due care. Moreover, the complexity of timber supply chains makes it hard to track whether timber imports were harvested from conservation hotspots. In the case of Gibson Guitar, Madagascar was in the middle of a military coup at the time of the raid, which brings into question the legitimacy of permits issued by the Madagascan government (Shelley 2012, 558). Gibson stopped purchasing wood from Madagascar as soon as an illegitimate government was established, but by then they had already amassed millions of dollars' worth of material. Finally, a measure of 'good faith' in monitoring supply chains is frustratingly subjective, because once again there is no concrete definition of good faith; it can be broadly interpreted to mean a variety of things.

Other proposed solutions for the Act take a more analytical approach to that of Saltzman (2010). Tanczos (2011) proposes the implementation of a *de minimis* standard, in which a threshold level is codified in order to eliminate the need to file a declaration for products with only trace amounts of plants or wood (565). This is intended to alleviate the burden of excessive paperwork on companies, thus making it more likely that companies will file the necessary declarations for their products. Gordon (2016) argues that fighting the problem does not mean only pursuing purchasers of illegally sourced wood, but rather fighting foreign corruption that allows illegal logging to continue. She proposes the implementation of the Foreign Corrupt Practices Act (FCPA), in which foreign parties can be tried under American law so long as there is proof of US involvement through email, phone call, or a United States cell-phone carrier (Gordon 2016, 126) being used in the transaction. She states that due to its loose *mens rea* requirement, the FCPA could be an effective means for battling illegal logging perpetrated abroad. On the other side of the

spectrum, White (2013) argues that the 2008 Lacey Act amendment should be repealed by Congress, as it was initially intended to protect wildlife and the provisions for illegal timber simply cannot align with those aimed at historically regulated items. But given its importance in environmental protection, he suggests adding in an ‘innocent owner’ defense clause aimed at protecting individuals unaware of owning illegal wood products from unfair prosecution.

The information provided gives a more coherent understanding of the nuances and complications in international law. Through their analyses, it can be determined that the Lacey Act has been both successful and weak in equal measure. The following chapter will look at case studies prosecuted under the Act, in particular Gibson Guitar and Lumber Liquidators. It will then follow an analysis on the palm oil industry, and the Act’s ineffectiveness in regulating illegal logging and deforestation that occurs as a result of palm oil production.

5 Chapter four: Case studies

The effectiveness of the Lacey Act is best understood when put into practice. Since its implementation in 2008, there have been a number of cases prosecuted under the Act. Each case has garnered a wide spectrum of opinion, further polarizing the theories surrounding the law. The first case prosecuted under the Lacey Act was that of Gibson Guitars, whose warehouse was raided first in 2009, then in 2011. This particular case was used as ammo by scholars fighting against over-criminalisation imposed by the Act, and it remains a controversial case study to this day. The second case analyzed is brought forth by Lumber Liquidators in 2016, which is considered one of the biggest and most successful cases prosecuted under the Lacey Act. Finally, though it is not a specific case study, I analyze the impact of palm oil production on biodiversity and the climate, and put forth my own theory on why palm oil is a topic systematically left out of the provisions of the Lacey Act.

5.1 Gibson Guitar Corporation

Following the implementation of the amendment in 2008, one of the most prominent cases prosecuted under the Lacey Act was the Gibson Guitar Corporation raid: first in 2009, and once more in 2011. This case was by far one of the most shocking for the musical instrument manufacturing industry, particularly because of Gibson Guitar's stance on environmental policy. Founded in 1980, Gibson Guitar is one of the largest instrument manufacturers in the world; they are known for household names such as the Les Paul and the acoustic Jumbo. In addition to being a world renowned instrument company, Gibson Guitars is also a "leader in environmental activism in the music community" (Shelley 2012, 557). They regularly donated to the Rainforest Alliance,

a non-governmental organization aimed at protecting biodiversity and supporting sustainable practices. Since 2006, Gibson Guitars has donated between \$315,000 and \$390,000 for the charity's annual gala dinner (Shelley 2012, 557). Henry Juskiewicz, CEO of Gibson, also served on the Rainforest Alliance board. The company's environmental consciousness granted it the Forest Stewardship Council (FSC) stamp of approval (Shelley 2012, 558).

Gibson Guitar's Tennessee warehouse was first raided in 2009 in response to the knowledge that one of the company's shipments contained Madagascan ebony, a species of wood listed in appendix II of CITES. It was seized on suspicion of violating Madagascan law, which deemed unfinished wood exports illegal. The nature of the raid created debate between Gibson and federal agents on whether the wood in question was in fact unfinished wood or if it was, as Gibson claimed, "a finished good export that local officials approved" (Shelley 2012, 558). US officials claimed the timber illegal under Madagascan law, prompting them to enforce Lacey Act sanctions on the company. What led to further confusion of the seizure was Madagascar's political climate at the time; upon the importation of the wood into the United States, Madagascar's government was in the middle of a political coup, begging the question of whether the country's laws were valid or being enforced at the time of export. Despite the turbulent political climate of Madagascar at the time of trade, Gibson Guitar continued to import the purchased wood up until the 2009 raid. Gibson has since stopped purchasing wood from Madagascar and has instead chosen to source rosewood supplies from India.

Gibson Guitar's warehouses were once again the target of a federal raid in 2011, which led to the confiscation of company documents, computer hard drives, pallets of Indian ebony and rosewood, guitars, and tools (Shelley 2012, 559). Just like the 2009 raid, federal officials justified the raid on the grounds that Indian law prohibited exports of unfinished wood. The raid itself

centered around a disagreement on how to define guitar fingerboards (Shelley 2012, 560). To clarify how strict violations of the Lacey Act can be, the affidavit which secured the search warrant of the Gibson warehouse stated that “fingerboard blanks more than ten millimeters thick cannot be exported under Indian law” (Shelley 2012, 560). Those seized from Gibson were measured at ten millimeters in thickness.

The case of Gibson Guitar has left the musical instrument manufacturing industry in fear of what could happen if they, too, are caught in violation. It is clear that to violate the regulations of the Act does not take much, and many companies can face severe penalties for even the most minor of incidents, such as being off by only a couple of millimeters. In fact, the Act has been heavily criticised for veering too far towards over-criminalisation, and not enough towards protecting endangered plant species and prosecuting cases of substantial environmental ruination.

5.2 Lumber Liquidators

The temperate forests of the Russian Far East have become a hotspot for illegal logging. Its remoteness and wealth of precious virgin hardwoods make it an ideal location for harvesting timber, free of regulation and restrictions. Trees in this area can be up to 400 years old, but they are diminishing steadily as a result of illegal practices. According to Abrahamson (2015), “between 2001 and 2013, the Russian Far East lost an area of woodlands the size of Kentucky, mostly to fires and illegal logging” (48). This is largely due to “understaffed and sometimes corrupt governance” (Abrahamson 2015, 48), as well as the presence of ‘timber mafias’. Aptly named due to their organized criminal nature, these logging companies bribe their way into protected areas in order to harvest whatever wood is in the highest demand: Oak, elm, pine, and ash woods are among the most popular. Mongolian Oak, a species of timber protected under CITES, is also found in

these Siberian forests. As a highly valuable species of wood, it is widely sought after in the timber industry. While the protection of CITES listed timber is essential, the most pressing concern is for the wellbeing of the Siberian tiger, Amur leopard, and even the indigenous communities who use the woods for “beekeeping, hunting, and nut collection (Abrahamson 2015, 49). Without these woods, a crucial part of Russia’s biodiversity would have very little chance of survival. There are only an estimated 450 tigers and fifty-seven leopards left in the wild (Cruden and Gualtieri 2016, 35). As a consequence of illegal logging, harvesters risk the complete extinction of two CITES protected species of animals.

Among the buyers of Russia’s illegally harvested Mongolian Oak was U.S. based company Lumber Liquidators Co. In 2016, they were discovered to have bought illegally sourced timber from Chinese company Xingjia Wooden Flooring, which had imported large amounts of wood from the protected forests of the Russian Far East. The dubious practices governing the trade of illegal timber was brought to light when a team of investigators, lead by Environmental Investigation Agency (EIA) head Alexander Von Bismarck, went undercover and set up a fake business deal with Xingjia in order to glean more evidence for their case. It was uncovered that Xingjia and Lumber Liquidators had been in business for at least five years prior to the EIA’s investigation, and their business relationship was one of the most important (and certainly one of the most profitable) for the Chinese company. When the EIA report was published in 2013, federal agents were sent to raid the Lumber Liquidators home warehouse in Toano, Virginia (Abrahamson 2015, 49). Lumber Liquidators was also sentenced in federal court due to its illegal importation of hardwood flooring (Cruden and Gualtieri 2016, 35). They were fined \$13 million, put on a five-year probation, and required to forfeit all goods. The court ruled that \$1.2 million of the total sum was to be dedicated to two recipients: the National Fish and Wildlife Foundation, and the U.S.

Fish and Wildlife Service Rhinoceros and Tiger Conservation Fund (Cruden and Gualtieri 2016, 36). In addition to the fine, Lumber Liquidators agreed to fund a project aimed at developing a wood identification device capable of identifying CITES-listed species of wood at the border of entry into the country (Cruden and Gualtieri 2016, 36). Currently, there is no new information on whether the device was actually crafted or not. The final part of their sentence includes supporting research and preservation of both the Siberian tiger and the Amur leopard, as well as their habitats (Cruden and Gualtieri 2016, 37). Despite this, Lumber Liquidators never admitted that their hardwood was illegally sourced from Russia, and they also declined to comment on whether the wood bought from Xingjia could still be found on store shelves (Abrahamson 2015, 49). Nonetheless, National Geographic has labelled this case as “one of the biggest wins against wildlife exploitation of 2016” (Abrahamson 2015, 49). It is exemplary among cases of illegal logging because it led to a project focused on the development of a wood identification device that will help differentiate between CITES and non-CITES protected wood types. In addition, Lumber Liquidators pledged to support research and preservation of Amur leopards and Siberian tigers, as well as their habitats.

5.3 Palm Oil Production

The Lacey Act has proven on a few occasions to be a strategic law with plenty of enforcement power, but there are still a variety of environmental issues plaguing the Earth’s forests that are almost entirely overlooked by legislation. One such instance is that of palm oil production. In order to gain a clearer understanding of the palm oil dilemma, it is necessary to outline where palm oil comes from and how pervasive it is in nations all over the globe.

Derived from the palm fruit, palm oil is a trans-fat free oil found in a variety of packaged foods and cosmetics. The WWF estimates that around 50% of all packaged products in supermarkets contain palm oil (Spinks 2014). The first palm oil plantations were established by the Dutch and the English in both Indonesia and Malaysia during the late 19th and early 20th centuries. Following the end of World War II, palm oil became a popular commodity worldwide, leading to the Malaysian government implementing policies that vastly boosted palm oil production. As Malaysia's main competitor, the Indonesian government also reformed their policies in order to push for more palm oil production. By the 1950's, palm oil was used in everything from candle making to industrial lubricant, and it replaced the hydrogenated oils used in packaged foods prior to palm oil's introduction to supermarkets. Between 1962 and 1990, world production of palm oil rose from 500,000 tons per year to 11,000,000 tons per year (Schoeman 2015, 1089). Today, it is found in a wide array of products, including ice cream, crackers, instant noodles, vegetable shortening, shampoo, makeup, skincare, and household cleaning products.

At the current rate of production, palm oil is expected to increase exponentially in the following years, with the Indonesian government alone producing 40 million tons by 2020 (Schoeman 2015, 1089). Those in favour of palm oil argue that its production is fundamental for the national economy; it "provides millions of jobs and billions in export earnings" (Schoeman 2015, 1089). At the same time, it has devastating environmental impacts, especially for the steadfast decline of the orangutan population. A species once common throughout all Southeast Asia, the orangutan is now only found in "primary and secondary forests located in the lowland areas on the islands of Sumatra and Borneo" (Schoeman 2015, 1090), the very same area in which palm oil production is rapidly expanding.

The irony of palm oil is that in theory, it has the capacity to be one of the most environmentally friendly oils. It produces much higher yields compared to other vegetable derivatives such as rapeseed oil, therefore it requires less land for the same output (Schoeman 2015, 1090). Despite its potential, or rather because of it, palm oil companies clear more land in order to maximise their profits. Furthermore, the humid, tropical forests of Indonesia and Malaysia provide not only the perfect environmental conditions for growing palm plantations, but the valuable timber left over from clearing the land can be sold in order to “subsidize the initial costs of planting” (Schoeman 2015, 1090). Thus far, it is estimated that around 50% of forest loss is a result of conversion to palm oil plantations (Schoeman 2015, 1091). This is especially concerning for environmentalists due to Indonesia being one of the twelve “mega-biodiversity” nations, and home to the Leuser ecosystem. This ecosystem is one of the last places on earth where one can observe “tigers, elephants, rhinos, and orangutans living together in the wild” (Schoeman 2015 1091). In addition, Indonesia is also home to most of the earth’s peat swamps. While these swamps prevent tropical forests from drying out or catching on fire, they also store substantial amounts of carbon. When these swamps are burned down or cleared out, they release toxic amounts of carbon into the atmosphere, indirectly making palm oil production a forerunner in climate change. Other environmental impacts include the pollution of local water sources through the use of herbicides and pesticides, negatively impacting the indigenous communities that rely on such water sources for survival.

Palm oil production is a flagrant violation of any environmentally sustainable practices, but it also goes hand in hand with human rights abuses. According to Schoeman (2015):

Indigenous communities continue to lose their lands as governments grant palm oil companies concession both in Indonesia and Malaysia, but the human rights

violations extend to even more serious abuses, as communities have been forcibly removed or coerced into giving up land (1096).

However, palm oil production is often justified by the number of jobs it provides to thousands of citizens. Along with crude petroleum, rubber, coffee, tea, tobacco, and sugar, palm oil is essential for sustaining the Indonesian economy. To keep from crippling the economy, palm oil cannot be eliminated without something else to take its place.

In response to these concerns, the Roundtable of Sustainable Palm Oil (RSPO) was established in 2004 as a means to “develop standards that are meant to make an entire commodity chain more sustainable... by advocating a balanced, multi-staker approach, with considerable emphasis on environmental stability (Schoeman 2015, 1097). The majority of the RSPO’s body consists of members from Germany, United Kingdom, the Netherlands, France, Malaysia, Indonesia, and the United States.

One of the aims of the RSPO is to grant certification for companies that practice sustainable production methods. In order to achieve this certification, companies must adhere to the following criteria: “conducting environmental impact assessments, implementing mitigation measures, and having appropriate wastewater management systems in place” (Schoeman 2015, 1099). Unfortunately, the success rate of the RSPO has been deeply affected by institutional weakness, preventing the organization from making more progress in terms of sustainable industry. Part of the issue is the dominant role of the palm oil industry within the RSPO itself. Industry members, in order to protect their interests, support less rigorous standards in order to lower costs and maximise profits (Schoeman 2015, 1101). Despite the organization’s efforts to curb the negative impact of palm oil production, the RSPO has not outright banned deforestation, instead choosing to ‘strongly discourage’ such practices. As an organization, it lacks true enforcement power;

ultimately, its toothlessness allows for RSPO members to continue conducting business as usual without fear of serious repercussions. Furthermore, weaknesses within the RSPO has allowed for companies to use their certification as a facade of legitimacy for their dubious practices in a tactical ruse known as ‘greenwashing’ (Schoeman 2015, 1101). This loophole was discovered thanks to a 2008 Greenpeace report, which condemned Unilever for contributing to climate change and the destruction of orangutan populations, despite the company’s position on the RSPO executive committee and their claims of using only sustainable palm oil. If a company as big as Unilever was able to hide their secrets using the RSPO’s certification, it is entirely plausible that other companies also rely on the RSPO certification to communicate sustainable practices in their company, even if their line of work does not meet the RSPO’s requirements.

Another ‘greenwashing’ criticism aimed at the RSPO certification criteria underlines its very low “minimum standards for what qualifies as sustainably produced palm oil” (Schoeman 2015, 1102). Certification criteria is established on consensus-based voting, meaning that it has very little to do with what is actually considered sustainable and more to do with what stakeholders agree to. To make matters more complicated, certification is granted on a “users-pay agreement” (Schoeman 2015, 1103), and prices can be considerably high even by large companies’ standards. The cost often pushes smaller companies that can’t afford to undergo the certification process through the cracks. With little chance of certification and no governmental regulation, “smaller companies have little incentive to adhere to RSPO standards and are likely to continue following unsustainable practices” (Schoeman 2015, 1103).

The Indonesian government has, in some ways, taken initiative in trying to combat environmental degradation. The government passed a law in 2009 on environmental protection and management, which was “intended to put greater restrictions on industry and harsher penalties

for noncompliance with the new law” (Schoeman 2015, 1107). In order to qualify under this new law, companies must conduct regular environmental-impact assessments and obtain an environmental permit before securing other business permits (Schoeman 2015, 1107). Despite the government’s efforts to strengthen environmental legislation, illegal logging still plagues the nation largely due to corruption within law enforcement. Since the Indonesian government underwent decentralisation during the 1990’s, there has been a lack of clear communication between provincial and central governments. Local officials would not share information regarding palm oil permits or logging regulations, which has had devastating effects on the preservation and maintenance of Indonesia’s precious forests. This disconnect is clear when observing how the country is attempting to place a moratorium on new concessions while at the same time trying to reach a palm oil production output of forty million tonnes by 2020 (Schoeman 2015, 1110). Notwithstanding the moratorium, concessions are granted regardless. This is because of the way Indonesian forests are divided and classified: there are conservation areas that have high levels of biodiversity; protection areas, which have features that protect water and soil, such as preventing seawater intrusion; and production areas, which are used for farming and agriculture. The problem with this classification is that it is often inconsistent, and any conflicts in regulation mean that environmental protections are generally disregarded. For example, conservation law no. 5/1990 “provides for the protection of certain species and habitats, while some of the forestry laws allow for the conversion of the very same forests that should fall under the protection of this conservation law” (Schoeman 2015, 1111).

Exploring the nuances of palm oil production paints a dark picture on what environmental laws such as the Lacey Act are intended to target. The nature of palm oil is inherently tinged with environmental destruction, loss of biodiversity, mass deforestation, and certainly illegal logging.

This should concern any state that imports grand amounts of palm oil per annum, yet strategic laws such as the Lacey Act have never been applied. Section 3372 of the Lacey Act outlines what acts are prohibited; article a(b)(i) of section 3371 deems it unlawful to take, possess, transport, or sell any plant in violation of any law or regulation of any state or any foreign law that protects plants. Furthermore, article a(B)(IV) prohibits the taking of plants without, or contrary to, required authorization (see chapter two: language of the Act). By this understanding alone, it is clear that palm oil production practices in Indonesia should be considered a violation of the Lacey Act, because many permits are acquired illegally, and the clearing of land often involves illegal logging.

Why has nothing been done about it? Obtaining a clear answer would require a closer look at who are the biggest importers of palm oil around the globe. The United States is the sixth biggest importer of palm oil worldwide, with imports reaching 1.5 million metric tons a year (Index Mundi). While this may not seem like a lot in comparison to other countries like India and China (who both clear around 10.5 million and 5.8 million metric tonnes respectively), the issue of sustainable palm oil has not been high up on the list of priorities for many North American companies. It can be hypothesized that because the use of palm oil works in the United States economic interest, applying rigid environmental laws such as the Lacey Act would result in economic losses for a number of industries, especially the packaged food industry that the American public relies on. Whether one claims the Lacey Act to be for the environment or not, it is clear by studying cases like Gibson Guitar that the act is certainly financially driven, and penalties for prohibited acts almost always result in large fines that go upwards of thousands of dollars. However, attacking the palm oil industry, especially when palm oil is the cheapest oil alternative, might cripple the economy more than sustain it. At the very least, the Lacey Act could be used as a regulatory tool for controlling palm oil production in Indonesia. Placing moratoriums

on the industry has been ineffective thus far, and if the Lacey Act is truly meant to be a law intended to protect the environment, it should also have the power to target the industries responsible for illegal logging and mass deforestation in high-risk countries such as Indonesia. Organizations such as the RSPO have essentially been used as a bargaining chip for the palm oil industry in terms of giving the impression of being ‘sustainably produced’.

Palm oil as a product is not inherently detrimental to the environment per se, but the way in which it is harvested and manufactured has created a number of problems that must be addressed. Though the Act specifies that exclusions to the definition of ‘plant’ extends to common cultivars and food crops, it also states that any animal protected in any of the three CITES appendices is also protected by the provisions laid out in the Lacey Act (see chapter two: language of the Act). Animals within the Leuser ecosystem, such as orangutans, tigers, rhinoceros, and elephants, are declining in number as a result of palm oil production. These are also animals that fall under the protection of CITES. Therefore, it should be necessary and even encouraged to enforce the Lacey Act on cases of palm oil overharvesting.

There have been several instances in which the Lacey Act has taken broad strides of progress towards environmental protection and conservation. Even though the case of Gibson Guitar has attracted widespread criticism in regards to the Act’s potential for over-criminalisation, the Lumber Liquidators prosecution has set the record straight and supported the belief that the Act has the environment’s best interests at heart. However, palm oil production has never been prosecuted under the Act, which begs the question of whose interests are truly being protected. The next, and final, chapter will focus on potential solutions for flaws within the act, and draw conclusions based on the case studies.

6 Chapter Five: Solutions and conclusion

The aim of this paper was to determine the effectiveness of the 2008 Lacey Act amendment in reducing the import, trade, and consumption of timber derivatives in the US that contribute to illegal logging and deforestation worldwide. My analysis included a careful observation of select case studies analysed in tandem with theories put forth by the literature evaluating the act. Though it would be uncritical to begin one's research with any sort of expectation, I started my research on the assumption that the Lacey Act was a law intended to protect the environment from further destruction at the hands of illegal loggers. However, it is important to note that the Lacey Act was established by a coalition between environmental activists and large industries seeking balance for competitive timber markets. Therefore, the law was created both for environmental protection as well as economic benefit.

There have been some limitations in my research. Unfortunately, most of the literature concerning the Act is not up to date, and there remains a gap in the research between 2015 to today. This means that despite the extent to which one can research the Lacey Act, annual statistics remain somewhat obsolete. It seems that the issues of illegal logging, and especially theories on the Lacey Act, have not been popular among scholars as a topic of research. Furthermore, I was unable to properly conduct fieldwork in regards to my research topic, as my focus was on the United States whereas I reside in Italy. It may have strengthened my argument if I had the opportunity to discuss my questions with representatives of environmental organizations such as the FSC, UNEP, FWS, or WWF. My analysis involved mostly deductive research at my desk, where I had little opportunity to explore outside opinions from environmental specialists. I would suggest further research into

the Lacey Act in the future as it is constantly evolving in response to both environmental and political shifts.

There has been ample evidence framing the Lacey Act as a fundamental protective barrier against environmental crimes. This has been observed in the case of Lumber Liquidators, a large US flooring company that harvested protected trees in the Russian Far East. The implementation of the Lacey Act in the prosecution of Lumber Liquidators helped endangered species such as Siberian tigers and Amur leopards stay away from the brink of extinction. Another report, published by the Union of Concerned Scientists (2015) estimated that illegal wood imports into the US have declined by between 32 and 44 percent since the implementation of the 2008 amendment (1). Although this decline may not be entirely attributed to the amendment itself, it has played a pivotal role in reducing illegally sourced timber in the US. While there was an observable drop in US imports of illegally sourced wood that began in 2006, the collapse of the housing market in the following years “affected imports from low-risk countries much more than imports from high-risk countries” (as cited in Union of Concerned Scientists 2015, 5). Contrary to the desired effect of the Lacey Act:

the *proportion* of US wood imports originating in countries at high risk of illegal logging has increased, from 19 to 27 percent [in 2013], because imports from low-risk countries were more greatly affected by the contraction in housing construction (as cited in Union of Concerned Scientists 2015, 2).

US imports of paper from Indonesia, a high-risk country, have declined since 2007, but they have declined less than imports from other low risk countries (as cited in Union of Concerned Scientists 2015, 11). It can be deduced, then, that the Lacey Act has had little impact in reducing imports of pulp and paper from Indonesia.

Other cases prosecuted under the Lacey Act have supported claims of over-criminalisation, such as the Gibson Guitar raids of 2009 and 2011. The company was charged thousands of dollars for minor details that arguably may not have contributed significantly to the wider global issue of deforestation and illegal logging. But for cases in which illegal logging and destruction of biodiversity run rampant, such as within palm oil production, the Lacey Act has been ineffective.

Gordon's (2016) solution of implementing the Foreign Corrupt Practices Act (FCPA) could be effective when dealing with illegal logging in the palm oil industry. If the Lacey Act is unable to criminalise illicit practices in palm oil production, the FCPA could fill in any legal loopholes that companies often use to bypass the system. A critical issue in the framework of illegal logging is the inability to control corruption and legislative weakness in the countries responsible for the majority of timber exports worldwide, such as China and Indonesia. If governments placed a heavier emphasis on eradicating corruption, it would simultaneously make the process of reducing illegally sourced wood imports into the US simpler and straightforward. She states that:

Given the nexus between bribery, corruption, and illegal logging, and the potential for FCPA violations in any environmental law case involving Lacey Act violations and bribery of foreign officials, some scholars have suggested that the Department of Justice (DOJ) will begin prosecuting environmental crimes, such as illegal logging, using the FCPA (Gordon 2016, 136).

Despite this, the FCPA has currently never been implemented in cases of environmental crime. It could, however, provide an effective solution to eradicating institutional corruption within high-risk countries most known for illegal logging.

The debate regarding concerns of over-criminalisation can be fixed by adjusting a few clauses within the Act. Establishing a proper *de minimis* standard, as well as clarifying the *mens rea* requirement and how to practice ‘due care’ could potentially make it easier for companies to comply so as not to risk heavy fines or imprisonment. Furthermore, the process of declaring all wood species can be laborious and difficult, which often leads to companies filing incomplete or false declarations. This, in turn, causes problems further down the supply chain when trying to identify the legality of wood imports. If the declaration requirement was modified by, for example, creating a simple electronic system that can identify wood types and log them into an online database, it could incentivise companies to make complete, honest declarations, thus following more sustainable production methods.

Throughout my research, I have come to the conclusion that the 2008 Lacey Act amendment has been relatively effective in terms of reducing the import, trade, and consumption of timber derivatives in the US that contribute to deforestation and illegal logging. However, it appears to me that the Lacey Act has also often been used as a mechanism for levelling market competition, therefore providing economic benefit. The scope of the amendment is still full of loopholes and complications that should be addressed and possibly altered in order to strengthen it further. Nonetheless, one cannot deny the progress in environmental conservation since its implementation. The amendment is still a relatively new adjustment to the law, therefore it may take some time before it can crystallise into an established, effective custom. If used efficiently along with other laws such as CITES, the ESA, and the FCPA, the Lacey Act holds the potential to be a harbinger for all-encompassing, global environmental preservation.

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