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## Balancing Interests in Forest Governance in Brazil and Indonesia

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# Balancing Interests in Forest Governance in Brazil and Indonesia

Annabel Baldy

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Submitted to the faculty of Ursinus College in fulfillment of the requirements for Honors in  
Environmental Studies and International Relations

# Abstract

Forests play a major role in reducing levels of Greenhouse gasses which are a major contributor to global warming. Conversely, deforestation is a major contributor to climate change. This study examines the concept of good forest governance, dispelling notions that resource use needs to be a zero-sum game. Rather, it identifies local collective agreements as espoused by Elinor Ostrom in *Governing the Commons* as the best means of balancing the undeniable economic potential of converting forests to other uses (grazing, farming, and mining) with the more sustainable approach of protecting forests for their environmental benefit. For Ostrom, these collective agreements are the most promising approach to achieving good governance which protects forests, reduces deforestation, and creates a sustainable balance between economic growth and forest preservation. Despite a major focus of states, international organizations, NGOs, and foreign aid donors, improving forest governance has proven to be a challenge. Using efforts in Brazil and Indonesia to implement forest governance, this study uses the PEAT (Participation, capacity for Enforcement, Accountability, and Transparency) framework to evaluate the role of state actors, non-governmental organizations, agribusiness, and Indigenous people and local communities in forest governance. By presenting a structured comparison of forest governance in these two countries, the thesis seeks to highlight successful efforts to improve forest governance, identify persistent obstacles, and extract lessons from each case that can be applied to improve forest governance elsewhere.

# Table of Contents

Abstract	1
Table of Contents	2
Glossary	4
Introduction	10
Why should we care?	11
What constitutes good forest governance?	12
Literature Review	14
Forest Governance through the lens of <i>Governing the Commons</i>	17
Three Model Solutions (Leviathan, Privatization, and Another Way)	20
Implications for analyzing forest governance	22
Role of Actors	23
The Role of State Actors	23
The Role of Non-Governmental Organizations	25
The Role of Agribusiness	27
The Role of Indigenous People and Local Communities Influence	30
PEAT Framework	32
Participation	33
Capacity for Enforcement	34
Accountability	35
Transparency	36
Research Design	39
1. Case Study: Brazil	41
1.1 State Actors	43
1.2 NGOs	55
1.3 Agribusiness	61
1.4 Indigenous People and Local Communities	67
Discussion	73
2. Case Study: Indonesia	77
2.1 State Actors	79
2.2 NGOs	90
2.3 Agribusiness	100

2.4 Indigenous People and Local Communities	106
Discussion	114
Conclusion	117
Appendix	120
References	121

# Glossary

Acronym	Definition
Adat	Literally means “custom” in Indonesian. It is used to describe customary rules, land, or rights
ADM	A multinational company involved in the processing, trading, and distribution of agricultural products, including palm oil.
Amazon Watch	A nonprofit organization that works to protect the rainforest and advance the rights of indigenous peoples in the Amazon Basin
Amnesty International	A human rights non-governmental advocacy organization
Anti-Corruption Commission (KPK)	An independent government agency in Indonesia tasked with investigating and prosecuting corruption cases involving state officials and public institutions, as well as promoting anti-corruption awareness and education
Association of Southeast Asian Nations' Human Rights Declaration	A non-binding document that affirms member states' commitment to the promotion and protection of human rights in Southeast Asia.
BlackRock	A global investment management corporation that provides financial services and manages assets for institutional and individual clients
Brazil Development Bank (BNDS)	A federal public company that provides long-term financing and other financial support to Brazilian businesses, infrastructure projects, and government initiatives
Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA)	A government agency responsible for protecting the environment, conserving biodiversity, and monitoring and controlling activities that may cause environmental degradation or pollution in Brazil
Bunge	A multinational agribusiness and food company involved in the sourcing, processing, and distribution of agricultural commodities, including palm oil
Cargrill	An American multinational corporation that specializes in the production, processing, and distribution of agricultural commodities, food, and other products, including beef and cattle

Center for International Forestry Research (CIFOR)	A non-profit research organization based in Indonesia that promotes sustainable forest management, conservation, and livelihoods in developing countries through interdisciplinary research, capacity building, and stakeholder engagement
Chico Mendes Institute for Biodiversity Conservation (ICMbio)	A federal agency in Brazil that manages and protects protected areas, wildlife, and endangered species while also promoting research, education, and ecotourism
Common resource pools	Shared resources with a limited supply
Community Forest Management	A participatory approach to forest resource management that involves local communities in decision-making and planning.
Environmental Impact Assessment (AMDAL)	An Indonesian legal requirement for projects with potential significant environmental impacts, involving identification and evaluation of potential impacts, proposing mitigation measures, and seeking input and approval from stakeholders and government agencies
Food and Agriculture Organization of the United Nations (FAO)	A UN agency that aims to eliminate hunger, improve nutrition and livelihoods, and promote sustainable agriculture globally
Forest Carbon Partnership Facility (FCPF)	A multilateral initiative created by the World Bank that supports developing countries in their efforts to reduce greenhouse gas emissions from deforestation and forest degradation (REDD+) through financial and technical assistance
Forest Investment Program (FIP)	A multilateral initiative created by the World Bank that provides financial and technical assistance to developing countries to reduce greenhouse gas emissions from deforestation and forest degradation, while promoting sustainable forest management and rural livelihoods
Governance of Forests (GFI)	A framework created by World Resource Institute to assess forest governance
Glasgow Climate Pact	A global agreement from COP26 to accelerate actions and commitments towards limiting global warming to 1.5°C above pre-industrial levels
Greenpeace	A non-governmental environmental organization that campaigns globally on various environmental issues
Human Rights Watch	An international NGO that advocates for human rights globally through research and advocacy

Indigenous Missionary Council (CIMI)	A Brazilian Catholic Church organization that works to protect and promote the rights of indigenous peoples in Brazil, particularly in relation to land, culture, and spirituality
Indigenous Peoples Alliance of the Archipelago (AMAN)	A non-profit organization that represents the interests of indigenous peoples in Indonesia, advocating for their rights to land, resources, and self-determination, and promoting their cultural heritage and knowledge
Indonesia's Supreme Audit Agency (BPK)	An independent government agency responsible for auditing and examining the use of state funds and assets, as well as ensuring accountability, transparency, and good governance in public financial management
Indonesian Sustainable Palm Oil (ISPO)	A certification scheme for sustainable palm oil production in Indonesia that aims to promote responsible practices, improve competitiveness, and support the country's development goals
Institute of Geography and Statistics (IBGE)	A federal agency responsible for the production and dissemination of statistical, geographic, cartographic, and geodetic information about Brazil
Instituto Socioambiental	A Brazilian non-profit organization that works to defend the rights, culture, and territory of indigenous people and traditional communities in Brazil while promoting environmental conservation and sustainable development
Intergovernmental Organization	International entities created by sovereign states to address global issues and promote cooperation and coordination among member countries ex. UN, OECD, etc.
JBS	A Brazilian multinational corporation that is the world's largest processor of beef and pork and has faced criticism over environmental and social issues related to its supply chains
Marfig	A Brazilian company that operates in the food industry, specifically in the production of beef and other protein products. One of the largest meatpackers in the world, and the second largest in Brazil, after JBS
Ministry of Agrarian Spatial Planning (ATR)	A government agency in Indonesia responsible for formulating policies and regulations related to land and spatial planning, implementing land reform programs, and managing land data and information systems
Ministry of Environment	A government agency responsible for the formulation and implementation of policies related to the preservation and conservation of the environment in Brazil
Ministry of Environment and Forestry	A government department responsible for developing and implementing policies related to environmental conservation, natural resource management, and forestry in Indonesia
Ministry of Trade	A government agency in Indonesia that formulates and implements policies related to trade, investment, and exports to promote economic growth, competitiveness, and consumer and producer interests



Mongabay	An environmental science and conservation news outlet that covers critical environmental issues and stories from around the world
Moratorium	A temporary prohibition or pause in a specific activity or policy, usually imposed by a government or authority for review
Multi stakeholder forum (MSF)	Platforms that bring together diverse stakeholders to coordinate, share information, and build consensus on policies, programs, and projects to reduce deforestation and forest degradation
National Agency for Petroleum, Natural Gas, and Biofuels (ANP)	A government led agency that regulates the oil, gas, and biofuels industry in Brazil
National Electric Energy Agency (ANEEL)	A government led agency that regulates the generation, transmission, and distribution of electricity in Brazil
National Indigenous People Foundation (FUNAI)	A government agency responsible for protecting the rights and promoting the welfare of Indigenous peoples in Brazil.
National Mining Agency (ANM)	A government led agency that regulates mining activities and manages mineral resources in Brazil.
National Space Research Agency (INPE)	A federal agency in Brazil that conducts space research, develops satellites, monitors and prevents deforestation in the Amazon rainforest using remote sensing technologies
Oil palm	The actual tree from which palm oil is extracted
Organization for Economic Co-operation and Development (OECD)	An intergovernmental organization made up of 38 member countries, which promotes policies aimed at improving the economic and social well-being of people around the world
Palm oil	The oil extracted from the fruit of an oil palm tree
Paris Climate Agreement	An international treaty within the United Nations Framework Convention on Climate Change that aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels
Pastoral Land Commission (CPT)	A Brazilian Catholic Church organization that works to defend the rights of rural workers and promote land reform in Brazil, including advocating for the redistribution of land to those who work it

Perkumpulan	A non-profit association or club formed by a group of people with a common interest or purpose in Indonesia
Plasma Program	A government initiative in Indonesia where private companies are encouraged to give a portion of their land (plasma) to be cultivated by small farmers
Program on Forests (PROFOR)	A World Bank-managed trust fund that aims to reduce poverty by promoting sustainable forest management
Rent Seeking	The practice of gaining profit or value by manipulating the economic environment, political and social systems, or legal framework
Sectoral ego (“ego sektoral”)	The tendency of government agencies or departments to prioritize their own interests or mandates over the broader public interest or national development goals, often resulting in inefficiencies, conflicts, or suboptimal outcomes
SOS Mata Atlântica	A Brazilian non-governmental organization that aims to promote the conservation and restoration of the Atlantic Forest biome along the eastern coast of Brazil
State Forest Area	Refers to forest areas that are owned and managed by the Indonesian government, intended to commercialize forest resources for the benefit of the country's development and welfare of its people
tCO <sub>2</sub> e	Metric tons of carbon dioxide equivalent
The Nature Conservancy	An international nonprofit organization dedicated to conserving the lands and waters on which all life depends
UN Conference of the Parties (COP)	An annual meeting where member countries discuss and work towards reducing greenhouse gas emissions and adapting to the impacts of climate change.
UN Environment Programme's Law Enforcement Assistance Partnership (UNEP LEAP)	A program that provides support to countries in combating environmental crimes and enhancing the effectiveness of law enforcement efforts related to the environment
United Nations Convention on Biological Diversity (CBD)	A UN treaty that seeks to protect biodiversity and ensure equitable sharing of its benefits and resources
United Nations Environment Programme (UNEP)	A program of the United Nations that coordinates environmental activities and assists countries in implementing environmentally sound policies

United Nations Framework Convention on Climate Change (UNFCCC)	An international treaty that aims to prevent dangerous human interference with the climate system by stabilizing greenhouse gas concentrations in the atmosphere
World Resource Institute (WRI)	A non-profit global research organization that focuses on environmental issues
Yayasan	A non-profit foundation in Indonesia typically established for social or charitable purposes

# Introduction

Climate change, whether manifesting in extreme heat or cold, droughts, more violent and frequent hurricanes and declining biodiversity, has moved to the forefront of worrisome issues as scientists warn that climate change poses an existential threat to humans and other animal species. Human activities that generate greenhouse gasses are a major driver, one of which is clearing land and forests (deforestation) that releases carbon dioxide. The benefits of forests are many: cleaner air and water, extraction of carbon from the atmosphere, and rich biodiversity. Experts have long identified good governance as a key tool to protect forests, reduce deforestation, and rebuild forests in the race against climate disruption. But despite a major focus of nations, international institutions, non-governmental organizations (NGOs), and foreign aid donors, improving forest governance has proven to be a challenge. This thesis studies the recent evolution of forest governance in countries where the protection of forests -- and efforts at deforestation -- are particularly contested.

This thesis will examine forest governance in two countries: Brazil and Indonesia. It studies the role that state actors, non-governmental organizations, the agribusinesses, and Indigenous people and local communities play within influencing forest governance in these two countries, while adopting a generalizable framework of analysis. By presenting a structured comparison of forest governance in these two cases, the thesis seeks to highlight successful efforts to improve forest governance, identify persistent obstacles, and extract lessons from each case that can be applied to improve forest governance elsewhere.

## Why should we care?

Forests make major contributions to our earth's ecosystem. Trees absorb carbon dioxide (CO<sub>2</sub>), a major pollutant from the air and key contributor to atmospheric warming. Trees also remove particulate matter from the air contributing to better health for humans and other species and naturally store and filter our drinking water as well as cool the air around us. The Nature Conservancy estimates good management of trees, plants and soil could store the equivalent carbon of 57 million cars in the U.S. (The Nature Conservancy 2020).

The greatest threat to our forests and the benefits they provide is through human induced resource depletion that results from logging, burning, mining, and clearing/conversion to agriculture and animal husbandry. The United Nations Environment Program (UNEP) estimates that from 2015-2020, 10 million hectares of forest (equivalent of Iceland) were converted to other land uses (UNEP n.d.). Developing nations recognize the large economic potential of these vast swathes of land whether for farmland, timber harvesting, or raising cattle. Forests are cleared by controlled burns and industrial scale clearing to free up land for agricultural and mining industry use. Deforestation and land change is a main driver of climate change. It is estimated that 31% of the earth's land area is covered by forests (two-thirds of this is currently at risk) (FAO 2020a). Tropical forests sequester a significant amount of the world's carbon, in addition to their other contributions to the ecosystem to include providing habitat for countless endemic species. Tropical deforestation accounts for about 8% of global emissions annually (Gibbs, Harris, and Seymour 2018).

Reacting to the weight of scientific evidence, nations have signed on to numerous international treaties. Article 5 of the 2016 Paris Agreement states "parties should take action to

conserve and enhance [forests]” (Bendel 2019). Three other multilateral conventions include: the 2021 Glasgow Climate Agreement, the 1994 U.N. Framework Convention on Climate Change (UNFCCC) and the 1992 U.N. Convention on Biological Diversity (CBD). Nations are nowhere near the goal of 43% reduction in global emissions by 2030 or limiting global temperature rise to 2 degrees Celsius as stipulated in the Paris Agreement.

Newer programs, funded by higher income countries, have arisen that have sought to assist lower- and middle-income countries with more effective forest governance and management. These efforts include programs such as REDD+ and agreements like the Paris Climate Accords and Glasgow Climate Pact. The REDD+ framework is the United Nations (UN) answer to an improving governance framework in countries that are susceptible to land change and deforestation. REDD+ is a program in which international actors pay for countries to not cut down their forests and this allows said actors to reach their nationally determined contributions (NDCs) as promised under the Paris Climate Agreement (2016) and reaffirmed under the Glasgow Climate Pact (2021). The World Bank also has mechanisms in place to promote good governance and reduce deforestation. These include the Forest Carbon Partnership Facility (FCPF) and the Forest Investment Program (FIP). These initiatives provide funding and technical assistance to countries to improve their forest governance and reduce deforestation.

## What constitutes good forest governance?

The bedrock of good forest governance is transparent, accountable, and participatory management of resources and decision-making processes on the part of all actors. The World Bank was the first notable entity to introduce the idea of “good governance”. The World Bank use the term to pinpoint why development goals fail despite significant investment of time and

effort. Good governance relies on all participants, working together as part of a structured plan that is reflective of diverse opinions. In the wider context of international development, good governance is viewed as the foundation for creating positive social, environmental, and economic outcomes (Davis et al. 2013). Conversely, weak governance is frequently referenced for poor development outcomes.

Many scholars in the conservation field have tried to determine why resource depletion occurs at such a great rate despite efforts to combat it. At issue is the effectiveness of programs targeted to prevent resource depletion and the way in which the money within those programs is being allocated. This is where governance, specifically forest governance, comes into play. Forest governance can not only be used to address the challenges of deforestation, but it can be used to promote sustainable land use which benefits a country's economy. The outcomes of ineffective forest governance often result in even greater poverty and large unsustainable levels of natural resource depletion which bankrupt a nation's inherent wealth (Davis et al. 2013). Addressing the enormous negative effects of deforestation through a concerted effort across the spectrum of stakeholders is a core principle of good governance.

Forest governance is influenced by both governmental and non-governmental actors. At the nation state level the legislative, executive, and judicial branches have two roles: they regulate the actions of others in their approach to forest governance while also mobilizing others to act (Setzer and Nachmany 2018). In other non- state institutions, good governance functions similarly. Many civil society organizations and NGOs play a key role in promoting good governance in relation to forest management. They often advocate for transparency and accountability in land-use decision-making and for the participation of local communities and Indigenous peoples in forest management. NGOs concerned with the issue of deforestation have

adopted governance frameworks that improve their response giving them greater power and influence.

To examine forest governance in Brazil and Indonesia I will: i) Review literature pertinent to understanding some of the issues regarding forest governance; ii) Discuss the role that state actors, non-governmental organizations, agribusiness, and Indigenous people and local communities play in influencing forest governance in Brazil and Indonesia and; iii) adopt a generalizable framework of analysis to draw comparisons and contrast between the two countries. By presenting a structured comparison of forest governance in these two cases, the thesis seeks to highlight which efforts to improve governance have been successful, what obstacles persist, and what can be learned from each case for efforts to improve forest governance elsewhere.

## Literature Review

This section summarizes the literature exploring three theories that underpin the human dynamic at play in achieving good forest governance and examines the key actors in forest governance. Linking theory with an understanding of these actors is particularly important when considering the impact poor forest management has on climate change. The application of sustainable forest management helps to arrest the worst effects of climate change by conserving forests while also supplying economic benefits and maintaining the livelihood of local communities (Bixler 2014).



A review of the literature identifies at least three theories that explain the psycho-social elements underlying the consumption of forest resources and for that matter any scarce resource. These include: The tragedy of the commons, the prisoner's dilemma, and the collective action theory.

A key adherent, Garrett Hardin, explains his view in *The Tragedy of Commons* (Hardin 1968). The tragedy of the commons as set out by Hardin posits that when there are common resources, individuals that are not restrained by strictures that regulate access will use up the resource to the detriment of fellow humans and the environment. As applied to a forest that is open to a spectrum of users from industry to a recreational hiker, Hardin assumes that a rational minded logger weighs the cost/benefit of the forest. The logger clearly obtains a direct benefit from the trees they log while they experience delayed costs from the degraded commons which is the eventual logging of all trees in the forest. According to Hardin, due to the gradual manifestation of the costs and difficulty (or disinterest) in coordinating activity with other loggers, the individual logger will continue to cut trees despite the effect on the environment or consequence of depleting the resource.

Researchers have characterized Hardin's tragedy of the commons as a prisoner's dilemma. The forest is a common resource, open to all but limited in the number of trees that can be harvested. There are two different actions the loggers can take. Either cooperate or defect. If they cooperate, they cut an equitable number of trees saving resources for the rival logger. If they defect, they cut as many trees as they can which in turn limits the number of trees for their rival.

Both loggers benefit if they cooperate, albeit at a reduced but adequate income. If both loggers defect, they will prosper in the short run but will eventually deplete all the resources. If one defects and the other cooperates then the defector takes a greater share of resources, and the cooperating actor loses. This game works under the assumption that the loggers have a non-cooperative relationship and communication between the loggers is not possible or does not occur meaning each actor has no idea what action the other will take. Since both loggers are unable to coordinate their actions their most logical course is to defect and not risk being victimized by the other logger. The prisoner's dilemma is important because cooperating has a diminished reward while the other choice is winner take all. Applied to forest governance, a country or actor is incentivized to create a suboptimal outcome for the collective group.

The theory of collective action as advanced by Pamela Oliver in *The Critical Mass in Collective Action: A Micro-Social Theory* takes on the specific difficulties that occur when attempting to organize smaller interests into a win/win scenario (Ostrom 1990; Oliver 1993). The collective action theory seeks to explain how individual actors come together for mutual benefit. The theory of collective action acknowledges the obstacles to cooperation. The theory contends that small groups of individuals tend to act together in their self-interest only if the number of individuals is small or there is some type of coercion that makes individuals act together. The idea of collective action assumes that if an individual cannot be excluded from the benefits of a collective good then there is little incentive to voluntarily act to supply the good. This is emblematic of the free rider problem, to benefit from the contributions of others while you do

nothing because there is a greater benefit to not acting than the consequences (expenditure of resources) of acting (Armstrong 2016).

## Forest Governance through the lens of *Governing the Commons*

The framework for the idea of decentralization of power in forest governance was championed by Elinor Ostrom. In Ostrom's 1990 *Governing the Commons*, Ostrom takes issue with the idea of the tragedy of the commons most notably advocated by Garret Hardin in an article in *Science* (1968), which has been treated by numerous scholars as a blanket assumption that common resource systems are doomed to be depleted by people if there is not an external force to govern over them. This ongoing debate has great relevance for forest governance in that Hardin and his adherents discount any notion that forests, or any resource can withstand the self-interest of users unhampered by strict regulation or shared interest.

Ostrom looks at how different communities have been able to successfully manage common pool resources in a way that prevents their overuse. Ostrom describes the implementation of collective governance systems when chronicling these successes. She establishes that the pathway to successful forest management includes effective monitoring practices, defining clear boundaries of the resource, orienting rules to fit local needs, including pathways for participation, and graduated penalties for rule violators (Ostrom 1990). This debunking of the tragedy of the commons champions and encourages a bottom-up approach. The notion is that local communities are the best at resource management, and regulation and law making at more local levels tend to produce the best outcomes as compared to more centralized

efforts which lack the direct experience with the area and local community. To Ostrom communication with and inclusion of local and indigenous communities is highly important in implementing sound forest governance.

The gap between desired outcomes of formal governance and reality on the ground can lead to informal alliances at the grassroots level to take on the problem. A 2015 NPR news story illustrated this concept. Narrated by journalist Lulu Garcia-Navarro, this 2015 news story described a group within the Amazon, self-described as the “Guardians of the Forest” whose objective was to position themselves as a line of defense against the logging gangs that had invaded protected reserves. These groups were rubber tappers by trade who made their living by scoring trees with a knife, peeling back the bark, and collecting the latex sap. This method and level of extraction is sustainable, does not harm the tree, and provides income for the locals. Illegal loggers threatened this livelihood. These criminal gangs stole protected wood, as well as scouting valuable trees and then returning to harvest them. Formal law enforcement and agencies appointed to protect these forests had very little resources and staff leading the rubber tappers to arm themselves and patrol the forests looking for illegal loggers, risking not only their livelihoods but also their lives. From 2005 to 2015 sixteen rubber tappers in Machadinho d'Oeste in the western Brazilian state of Rondonia were murdered. Death threats were also made against environmental activists (Garcia-Navarro 2015).

The illegal loggers tended to be poor and were recruited by larger criminal gangs. These workers faced harsh conditions sleeping out in the elements in makeshift camps and receiving very little pay in return for their efforts. The demand for this wood is driven by larger, rich

industrialized countries like the United States which is the world's largest importer of Brazilian timber (Garcia-Navarro 2015).

This example is not uncommon when considering other forest commodities and forest communities across the world. It follows a familiar pattern— one group having outsized power, and another provided with few pathways for resources and support in order to use the forests in a sustainable way. The example highlights that forest governance is comprised of informal (de facto) and formal (de jure) rules and processes that allow for actors to influence decisions. The FAO states that “Effective forest governance processes engage forest stakeholders, address key forest-related issues, and involve other sectors that affect, or are affected by, forest governance” (FAO n.d.). Effective forest governance allows for individuals to actively engage and participate, has pathways for accountability and promotes the collective goals of a given community. As such it is of the utmost importance in supporting Indigenous people and local communities.

According to Dobrynin et al. (2020), forest governance has many different dimensions that have evolved over time. Governance approaches in recent years tend to function in a way that does not include a high level of participation from the central government or state. Instead, power has gone in three different directions. The first is upward toward international organizations and intergovernmental collaboration. The second is downward to subnational authorities, self-government, and local communities, and the third is outward toward private organizations and the market (Dobrynin, Smirennikova, and Mustalahti 2020). These three dimensions can be broken down more simply into three terms: globalization, decentralization, and privatization (Dobrynin, Smirennikova, and Mustalahti 2020). Similarly, Mwangi and

Wardell (2012) state that resource governance has two main approaches: “Big Government” and “Small is Beautiful”. Big Government features centralized power which includes bureaucratic decision-making, slow-moving bureaucracy and solutions that are not always pertinent or well targeted at the local level. In a federal system, states generally implement policy. Big Government is not particularly adept at meeting the needs of local interests. “Small is Beautiful” gives more power to local communities to determine resource protection and use. Some warn that while decentralization seems appealing, it can lead to coordination problems in which too many interests are at play and meaningful change cannot take place (Mwangi and Wardell 2012).

### Three Model Solutions (Leviathan, Privatization, and Another Way)

The tragedy of the commons, the prisoner's dilemma, and the collective action theory led to three model solutions for resource and forest governance. Thomas Hobbes envisioned Leviathan to be a system in which a central authority figure is given full power to govern and protect people. The Leviathan approach to governing common resources is anchored by the idea that “environmental problems cannot be solved through cooperation.... And the rationale for government with major coercive powers is overwhelming” (Ophuls 1973; Ostrom 1990). Garrett Hardin cites Hobbes' idea of Leviathan as critical to avoiding the tragedy of the commons (Hardin 1968). Hardin and Ophuls among other social scientists believe that an external central governing power should govern over common resource pools to avoid the tragedy of the commons. According to Ostrom (1990) this has been the dominant method used by developing countries to govern common resources.

In a scenario illustrating the Leviathan approach there are two different actors, both loggers competing for resources (trees). The loggers may choose to cooperate with one another or “defect” and pursue their own interests, potentially infringing on the other actor. There are several versions or "games" of this interaction. In game one, a central authority is in power and decides who can harvest the trees, when they can do so, and the number they can cut down. The central authority can also penalize those who defect.

In game two (cooperate, cooperate) the assumption is that rational actors will choose to cooperate with one another. Game two, like game one, works under the assumption that the central authority has complete information on the activity of the loggers and has the capacity to enforce and punish all defectors. Knowing this, the loggers will cooperate since the alternative is to defect and be punished by the central authority. Games three and four describe a central authority with complete information about the number of trees in the forest, but incomplete information about the loggers’ actions. This gap in information can result in unfair punishment being imposed on the actors. The rational choice for actors is to defect since they have no way of knowing if they will be unfairly punished. For forest governance, this implies that any governing authority must be able to gather information, enforce its actions, and do so with transparency to avoid defection of stakeholders.

Another model Ostrom describes is privatization: the “only” way. This model suggests that to avoid the tragedy of the commons a central authority must create a system of private property rights within common resource pools (Smith 1981). Using game theory, the forest would be divided into portions, each assigned to a logger. This places the responsibility on each

logger to make the best use of their resources rather than be at odds with other loggers. This scenario requires a great deal of land management e.g. fences, monitors etc. Another variable is that the environmental conditions of one section may be suboptimal to another i.e. one plot more susceptible to fires or insects. Privatization would be difficult to administer as consumers (loggers, miners, or farmers) would not be constrained by weaker neighbors.

Scholars believe an external authority, most likely the central government, will need to decide among private actors to maintain order in governing the commons. Ostrom argues that both ways -- centralization and privatization -- as led by the government are not feasible. The resources to govern the commons are too expensive, too time consuming, and have no guarantee of working at a local basis. Instead, Ostrom advocates that loggers (local actors) commit to a binding contract, adopting a cooperative strategy to allocate, administer and enforce property rights. Ostrom believes a collective approach offers a viable means to govern the commons. By including all actors, Ostrom creates a participatory pathway for IPLCs dispelling the notion that they are "...helpless individuals caught in an inexorable process of destroying their own resources" (Ostrom 1990).

## Implications for analyzing forest governance

This alternative solution, Ostrom's focus on self-organization and self-governance, is well suited to the case of forest governance. Through the literature, we can see that effective forest governance has developed to be much more than policy and laws laid out and enforced by the central government. Instead, effective forest governance is far more complex and requires the



analysis of the interaction between several different actors. Following the literature, there are four different groups of actors that have an outsized influence over forest governance: state actors, non-governmental organizations, agribusiness, and Indigenous people and local communities.

## Role of Actors

Actors within forest governance are comprised of four distinct and influential groups: state actors, non-governmental organizations NGOs, agribusiness, and Indigenous people and local communities. This paper seeks to break down the influence of these groups of actors and see how they organize to address forest governance. The coordination of interests of these different actors are referred to as organizations. Both individual and organized interests (organizations) within these four groups will be examined throughout the paper.

### The Role of State Actors

Forest governance has traditionally been under the purview of the state. The state centric model is consistent with the tragedy of the commons, popularized by Garrett Hardin in 1961. The tragedy of the commons has presided over much of forest governance approaches in many years. Only until Elinor Ostrom famously refuted the tragedy of the commons did resource management and more specifically forest governance start to focus less so on state actors ruling over resources.

State actors are individuals or entities that act on the behalf of a government body. They engage in forest governance through a variety of mechanisms, they implement and enforce laws

and regulations related to forest management, allocate land use rights, and create and manage protected areas. State actors are also able to provide technical and financial aid to individuals and organizations engaged in sustainable forest management and participate in international agreements and initiatives aimed at promoting responsible forest stewardship. Additionally, state actors often work in partnership with local communities, Indigenous groups, and other stakeholders to develop and implement forest management plans that consider the needs and perspectives of all those affected by forest use and conservation.

The formal interests of a state can be to function as a moderator between different interest groups, trying to avoid conflict & resource depletion. Alternatively, the state can more aggressively push for a balance between exploitation/economic use of forests and conservation. The approach is tailored to the reality within each state.

In addition to the formal interests that state actors pursue, there are also informal interests at play (Zhao et al. 2022). State actors may have their own interests that can impede or accelerate decisions. This includes the desire for public officials to increase their influence on projects in order to advance within a political institution (Zhao et al. 2022).

These informal influences that state actors can take on may have negative consequences for forest governance and management. Public officials have been known to accept bribes for things such as marking trees outside a concession as harvestable to allow for loggers to come in and clear parts of a forest (Transparency International 2010). This is called “rent seeking”. Government officials have in the past used influence to obtain logging concessions that either benefit themselves, family members (nepotism), and/or associates (cronyism) (Transparency

International 2010). An example of this occurred in Malaysia where the Chief Minister Abdul Taib Mahmud planned for the state to sell lands to family members and associates at much lower rates than usual. The proposal owners also planned to turn the newly acquired land into palm oil plantations, destroying the forests on the land. This plan would have enriched Taib as he would receive unofficial payments from the companies purchasing the land (Global Witness 2013).

## The Role of Non-Governmental Organizations

Non-Governmental Organizations (NGOs) are groups that pursue interests independently of a government. NGOs lobby government officials and policymakers to advocate for policies and regulations. NGOs also conduct research and collect data to advise policymakers. Another important function is to monitor law and regulations to ensure accountability. One of NGOs most important functions is the ability to work directly with local communities and indigenous people in ways that support forest management to protect these stakeholders' rights and interests. This communication with local and Indigenous people can also include education about their rights and best forest management practices.

NGOs have started to play more important roles in recent decades as decentralization of forest governance within states has taken place (Moeliono, Wollenberg, and Limberg 2009). Notable NGOs within the environmental field include: the Nature Conservancy, Greenpeace, Mongabay, and smaller local NGOs like the Pastoral Land Commission (CPT) and Indigenous Missionary Council (CIMI) in Brazil, and the Indigenous Peoples Alliance of the Archipelago (AMAN) in Indonesia. NGOs are generally very effective in forest governance, tending to be

“small-scale, flexible, low-cost, and task-oriented” (Keese 1998). NGOs also have shorter lines of communication and stress the importance of participatory pathways that incorporate local people within the project planning, implementation, and assessment process (Keese 1998). Oftentimes these organizations may work together to form NGO partnerships and networks. Partnerships are particularly common with intergovernmental organizations (IGOs) like the UN. IGOs are global entities that consist of sovereign states as members and work together to address issues of mutual concern such as trade, security, human rights, and the environment by promoting cooperation and coordination among member countries. The UN and other IGOs as well as larger NGOs believe that partnering with local and established NGOs helps to give a more localized perspective to policy decisions. UN REDD+ projects, under the umbrella of the UN, frequently utilize these NGOs partnerships to facilitate grass root efforts. For the purpose of this thesis, REDD+ projects fall under the category of NGOs since they are facilitated by foreign actors and implemented with the help of NGOs.

Smaller NGOs according to Dellmuth (2020) are able to skirt formal institutional obstacles that larger NGOs like Greenpeace and the WWF encounter, depend less on formal pathways such as access to the UN and its associated programs and instead depend more heavily upon access to domestic institutions to achieve their goals (Dellmuth 2020). Still one of the most positive and important functions of both international and local NGOs within a functioning system of governance is that they can engage in resource exchange with policy makers and provide useful information to policymakers internationally and abroad (Bianchi and Kossoudji 2001). This is critical to environmental governance in particular since it tends to be more

complex than other types of governance due to the number of actors involved, the type of policy sectors affected, the level of technical knowledge required, and the fragmentation of the institutional context (Dellmuth 2020). Environmental NGOs contributed significantly to the drafting of the United Nations Framework Convention on Climate Change (UNFCCC) at the Rio Earth Summit in 1992. This was achieved by NGOs heavily participating in government delegations, lobbying, building public pressure as well as contributing to content and structure of the negotiation text used (Rietig 2011).

## The Role of Agribusiness

Agribusiness refers to companies involved in any step of the supply chain of forest commodities, and banks and interest groups involved directly or indirectly in resource use for commercialization. Those involved in agricultural businesses can influence forest governance in many ways. For one, agricultural companies may engage in activities such as logging, clearing, and conversion of forests for crop and livestock production, which can have a significant impact on forest cover and biodiversity. They may also influence forest governance through lobbying and advocacy, seeking to shape policy and regulations in ways that are favorable to their business interests. These companies may also extract resources such as water and minerals from forests, which can have negative impacts on forest ecosystems and the communities that depend on them. On the positive side, agricultural companies may partner with government agencies and NGOs to implement sustainable land-use practices and reforestation projects and promote sustainable forest management. They may be involved in international initiatives and agreements

related to forests, such as the UNFCCC, and the CBD. Finally, agricultural companies may invest in or finance sustainable forest management projects or promote environmental conservation initiatives.

It is worth noting that the impact of big agricultural business on forest governance is a complex issue, which can have both positive and negative effects. While some companies may engage in sustainable land-use practices, others may contribute to deforestation and degradation of forests, which undermines conservation and environmental goals. In Mexico, Coca Cola has come under fire for contributing to deforestation. To save their public image Coca Cola created a reforestation program. Unfortunately, the effort turned out to be greenwashing according to an article that appeared in Mongabay (Selibas 2022). In this case, interviews from villagers and other locals helped to determine that Coca Cola used resources to market themselves as environmentally friendly while not actually making substantive changes to improve its environmental record, Mongabay found that Coca Cola paid indigenous people to be in a promotional video about the positive impacts of their corporate program, but in practice did very little to actually improve their company practices (Selibas 2022).

Another case of negative impacts from companies in resource extraction is the case of the Drummond Company, an Alabama-based coal company, activity in Colombia. The company has been alleged to have paid off paramilitary groups to kill leaders of the company's worker union to continue their operations unhindered (Cleek et al. 2021). Access to mining is a significant factor in deforestation.

One of the main ways that businesses can engage in forest governance is through REDD+. Businesses can buy carbon credits in other countries to offset their own CO2 emissions. These credits can also be sold to third parties who repackage them and sell the credits as a type of stock-like commodity. The idea of carbon crediting through REDD+ is that local communities can earn a profit in protecting their forests and this in turn stops them from destroying the forest to make a living. The system works by identifying the amount of carbon credits a given area has by establishing a baseline. The number of trees cut down and deforested within the last 10 years is calculated and that baseline used to calculate the amount of carbon that would be going into the atmosphere if deforestation were to continue at that rate. It must be noted this method of calculation tends to overestimate the number of trees that would be potentially cut down. It also is concerning since many forests within the Global South have informal rules of ownership, complicating the assignment of credits. In other instances, land owned by a private individual, but used by local and indigenous people could result in these groups being restricted from using the land, leading to conflict.

A common critique of agribusiness is that it can have a negative influence on forest management. With their influence and money, they can create interest groups that have the power to lobby officials involved in the forest management process. While both Agribusiness and NGOs enlist interest groups to further their causes, agribusiness is primarily interested in profit not conservation, NGOs in furthering positive environmental outcomes. Interest groups employed by Agribusiness, engage in the rent-seeking process in order to influence policy in a way that gives their organization a larger share of benefits (Craig and Madland 2014). Recently,

environmental groups blamed logging lobbyists for the EU Council of Environment Ministers redrafting of a law that softened protections against forest degradation by allowing “replacement of primary forest by plantations or other wooded land” (Cavallito 2022). Environment groups pointed out that this does nothing to protect forests or their complex biodiversity from unsustainable operations (Cavallito 2022). On top of these negative influences from interest groups, is the difficulty in tracking the actions and influence of interest groups within forest governance that use anonymity to advance their interests without public outcry.

## The Role of Indigenous People and Local Communities Influence

Indigenous People and Local Communities (IPLCs) are two groups whose interests often intersect. Indigenous people are the individuals or groups that have a pre-colonial or pre-invasion historical connection to the area. Local communities have shared interests and have strong connections to the land or area for personal use. Both can play a significant role in forest governance by influencing decisions related to the management and use of forest resources (Āina Momona 2020). IPLCs may hold traditional land use rights and use them to influence forest governance. They also have a wealth of traditional knowledge about the use and management of forest resources, which can inform forest management decisions. Additionally, IPLCs may take part in community-based management of forests, which can include activities such as fire management, reforestation, and the protection of biodiversity. They also may participate in decision-making processes related to forest management, such as through the creation of community-based organizations and through representation on forest management boards and



committees. IPLCs may also advocate for their rights and interests through lobbying and grassroots mobilization and may also participate in legal challenges and campaigns to protect their rights and resources. In addition, IPLCs may engage in forms of direct action such as protests, boycotts, and other forms of activism to bring attention to their concerns and to exert pressure on decision-makers.

In recent years, several IGOs have attempted to include IPLCs in international initiatives and agreements related to forests. These include the UNFCCC and the CBD. The Global Biodiversity Framework which has replaced the Strategic Plan for Biodiversity 2011–20 includes language that calls for the participation of IPLCs in the decision making process as well as emphasizes the importance of Indigenous knowledge (UNCBD 2021). Overall, the participation and engagement of local and indigenous communities in the decision-making process is critical to ensure that the resources and rights of these communities are protected, and that sustainable forest management practices are implemented (UNEP 2020).

IPLCs are often forgotten in the forest governance process, yet research shows that they can play an important role in forest governance (Walker et al. 2020). The role of IPLCs has changed drastically, given that, historically it was common practice to remove IPLCs from areas under the mistaken notion that they pose threats to native biodiversity. This is due to the view held by some environmentalists that resources must be untouched, reducing the focus on sustainable use of resources. This happened in the United States with the creation of national parks that forced indigenous people off their land, taking away the livelihood of indigenous people and land that is culturally significant to them.

In sum, the literature suggests the state, NGOs, agribusiness, and indigenous/local populations play an important role in forest governance. My analysis in the two cases studies will examine the role of each.

## PEAT Framework

The framework I use to define good forest governance is consistent with Ostrom's theory of collective action. It is broken down into four characteristics: 1) Participation, 2) Capacity for Enforcement, 3) Accountability, and 4) Transparency (PEAT). I use this framework to evaluate and grade each of the four actors on their relative strengths and weaknesses of these characteristics within their organization, with the goal of a comparative analysis of forest governance in Brazil and Indonesia. "Good" forest governance is if each actor (1) can participate in rulemaking, (2) is able to enforce existing rules, (3) can be held accountable, and (4) upholds transparency in forest governance.

In the instance a country scores high on all 16 aspects of the PEAT framework, you would expect to see participation on all levels of society, an adequate number of resources to facilitate enforcement, and internal & external checks and balances in organized groups of actors that ensure accountability and transparency. Per Ostrom's theory of collective action, these aspects, when considered on the local level, allow for agreements to be made between actors that will help to prevent and drive down deforestation. These actors will reach an equilibrium where they have no incentive to deviate from their agreement and the most optimal decision is to cooperate, thus allowing for long-term forest governance agreements and for deforestation to

decrease. Currently, IPLCs who tend to favor forest protection and sustainable use, do not hold enough power compared to agribusiness. When power is distributed in cooperative agreements, it allows for all actors to exercise their interests. Agreeing to share power is at the core of collective action.

## Participation

Participation evaluates how much each of the four actors participates in forest governance. It asks if the main actors create pathways for stakeholders to engage in the policy process and give their opinion. Stakeholders (which can include all four actors) refers to any individuals, communities, organizations, or governments that have an interest in how forest resources are governed, managed, and used. Participation is expressed through public forums, public and fair voting, and ensures that minorities have equitable access to give input to the decision-making process. Participation works to increase the breadth and depth of knowledge of policy makers as well as create policies that will be better able to satisfy the needs of local people while making progress towards its intended goal of forest management.

Reaching out to stakeholders is especially important for actors within the decision-making process. The most important part of this is ensuring that stakeholders' interests and feedback are included in decisions. Not only does reaching out to stakeholders build trust between the two parties, but it also promotes transparency, and ensures comprehensive and long-lasting solutions. Another important question in the context of evaluating participation is whether stakeholders can be actively involved within forest management and planning. There also must

be coordination between regional and local authority within organized groups of actors. These indicators help to positively affect decision-making while ensuring that the best possible solution for all key stakeholders is implemented. It also allows for education to occur that can help with forest management on a more local level (Kishor and Rosenbaum 2012). Participation ensures that all voices are considered to help provide a solution suitable to the situation. This is in line with Ostrom's third way theory that there should not be a one size fits all solution and instead actors must tailor solutions to best fit a given environment. Participation provides information pathways to help tailor solutions.

## Capacity for Enforcement

Capacity for enforcement is the ability of the government and its associated agencies to hold violators accountable for their actions. This can be seen as programs for local and indigenous people to report violators and increasing funding for environmental agencies and prosecuting bodies (Hermann, Bakhtary, and Conway 2020). Capacity for enforcement is the most important part of the framework. Good governance is rendered ineffective if there is no way to enforce rules and initiatives. To have good capacity for enforcement, the people who are evaluating agency actions should be independent of the people whose work they evaluate. A person being evaluated should not be able to limit the evaluation or punish the evaluator for finding fault.

Capacity for enforcement also requires that there be an external/independent monitor put in place that can monitor a state or agribusiness's activity. This means that no one has the power

to limit a monitor's scope of the process and will not hide their findings. Another crucial element within the entire process is that leaders of the organization communicate policy to its members and get everyone on the same page and have the resources to keep themselves functioning fairly. In this way, the organization will be in an advantageous position to put all their resources towards achieving a common goal in an efficient and equitable manner. Other aspects of enforcement are the (human) resources to physically enforce rules and arrest violators and the physical resources to access remote areas where enforcement must occur.

## Accountability

A report from the World Resource Institute defines accountability as the standards and systems for ensuring that power is exercised responsibly (Ballesteros et al. 2010). In practice, these manifest by allowing stakeholders to access information and ensuring that stakeholders can then act to redress issues that may arise.

There are several indicators to assess accountability. Adequate accountability in the forest sector involves the disclosure of information, adherence to legal frameworks for good governance and management, and implementation of environmental and social safeguards by both the organization and private sector actors. It also requires adherence to a code of conduct that prohibits corruption, and a free and independent media that can report on and make accessible information about forest management to the public (Ballesteros et al. 2010). In the event of failures within the organization to meet these standards, there should be a clear process

for addressing and rectifying the issue. All these standards ensure that stakeholders have the right and access to participate now and in the future.

## Transparency

Transparency in the forest sector is essential for promoting responsible and sustainable management of forest resources. It involves providing the public with access to information about the sector, including proposed policies, programs, laws, and projects. This allows for greater public engagement and accountability, as well as opportunities for feedback and input on decisions that may have a significant impact on the environment, local communities, and the economy. Additionally, providing public notice of these proposals allows for a greater understanding of the impact of decisions and for the public to have an opportunity to voice their opinions or concerns (Davis et al. 2013)

Transparency also includes having a transparent, credible, and comprehensive system in place for tracking government revenues and expenditures in the sector, as well as measures that allow for the tracking of money and resources. This helps to ensure that funds and resources are used effectively and efficiently, and that there is no room for misuse or mismanagement of funds. Also, making this information publicly available, it promotes greater transparency and accountability, as well as opportunities for oversight and monitoring (Davis et al. 2013).

A transparent organization should function in an open and transparent manner, with adherence to the rule of law. This means that the organization should be open to external oversight, and that there should be clear and transparent processes in place for decision-making

and accountability. This is particularly important in the forest sector, where decisions can have significant and long-lasting impacts on the environment and local communities.

Finally, transparency should extend to the entire supply chain for agribusinesses, including the sourcing of raw materials and the production, distribution, and sales of forest products. This promotes responsible and sustainable use of forest resources and helps to ensure that products are not sourced from illegal or unsustainable operations.

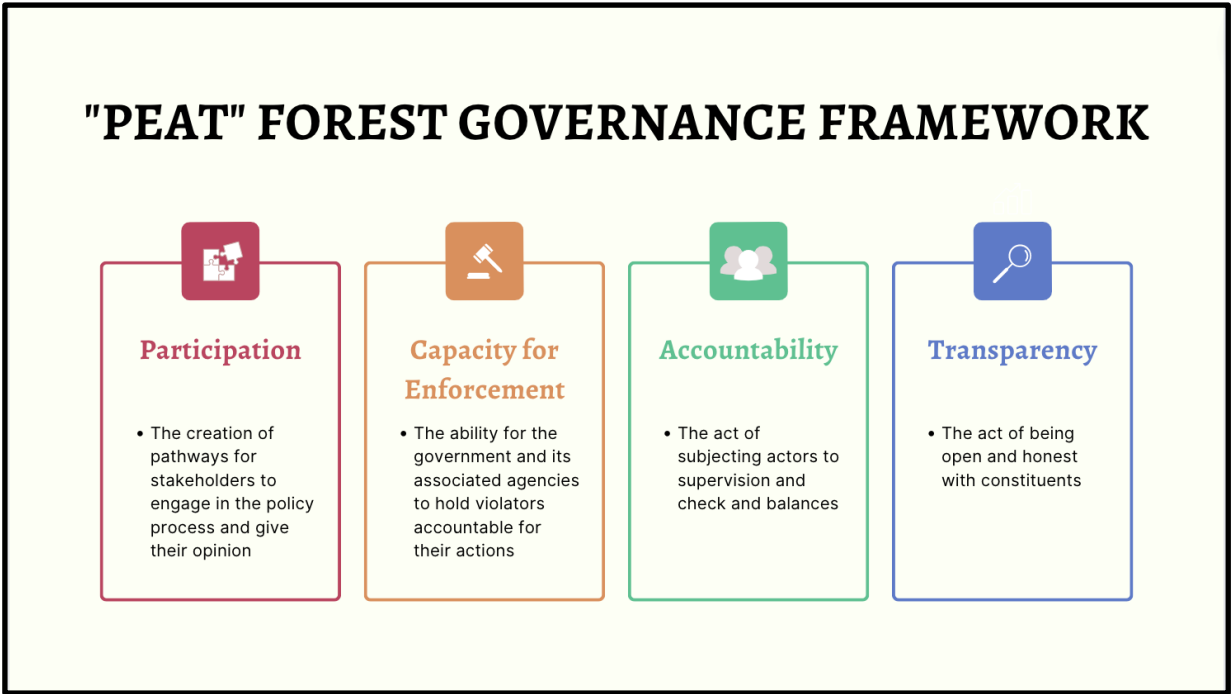


Figure 1: The PEAT Forest Governance framework. Source: adapted from WRI Assessing Forest Governance Report and GFI Indicator Framework (Davis et al. 2013)



## Research Design

My thesis focuses on highlighting successful efforts to improve forest governance, identifying persistent obstacles, and extracting lessons from studying Brazil and Indonesia that can be applied elsewhere to address resource depletion within tropical forests. I focus on the four actors (state actors, NGOs, Agribusiness, Indigenous and local participants) and the roles they play in forest governance using the PEAT framework.

Brazil and Indonesia are particularly interesting cases of forest governance. Both countries are at a crossroads in terms of balancing rapid economic transformation, driven by the availability of rich natural resources and strong agricultural sectors, with environmental and human rights responsibilities. The two critical areas within these countries are the Brazilian Amazon Basin and Indonesia's lowland tropical forests. Both these forests hold high-capacity carbon sinks (old growth forest and peatlands) in addition to some of the highest diversity of species on earth. Brazilian and Indonesian forests are of importance on numerous levels. IPLCs rely on the forests for subsistence, economic viability, and culturally important ceremonial practices. At the international level, the forests within both countries are emblematic of a broad swath of forests elsewhere that provide substantive protection against climate change.

The units of analysis for this study are the four key actors contributing to forest governance: the state, NGOs, agribusinesses, and Indigenous people & local communities influencing governance. I examine how each of these actors engages along the PEAT framework. To collect data, I use a case study approach using open-source documents. Benefits to using a case study approach are that it gives an in-depth and detailed view of forest

governance in Brazil and Indonesia. The detailed examination will illustrate what each actor brings to forest governance and how (or not) they overcome differences to forge a policy for balancing the tension between economic growth and the long-term benefits of forest conservation.

The reports and documents that I analyze for my case studies come from a variety of organizations including: Human Rights Watch, Amnesty International, Greenpeace, and Mongabay as well as reports directly from government agencies. These organizations are independent human rights and environmental watch dogs that report on the activities of various entities that give a distinct perspective of the ways in which actors engage in governance. I also include sources such as the New York Times and Reuters to collect additional perspective from individual actors. I analyzed the information using the PEAT framework and evaluated it using the metric of participation, capacity for enforcement, accountability, and transparency.

The PEAT framework uses a set of questions to collect information from each document or report. These questions range from more general such as the classification of the organizations and period that the document or report is referencing to the organizations top interest(s)/desirable outcomes in forest governance. Each actor is evaluated on four larger questions:

1. How does this organization participate in forest governance? How does the organization invite and include diversity in the decision-making process? Has this participation changed over time?
2. Does this organization have the capacity for enforcement? Does it use this capacity and enforce?

3. What are the mechanisms in place for accountability in this organization?
4. Do the practices of the organization encourage openness?

These four questions can be further broken into sub-questions to specifically determine the influence and actions of a given organization on the characteristics of the PEAT framework.

These sub-questions are listed in the Appendix section.

For these measures and sub-questions I used a document and tool from the Program on Forests (PROFOR), the World Bank's multi-donor fund aimed at protecting forests and reducing poverty (Kishor and Rosenbaum 2012). The document, written by Kishor and Rosenbaum (2012), describes itself as a guide to diagnosing the strengths and weaknesses in forest governance through the use of a tool developed by PROFOR. The tool is a list of indicators and questions within those indicators as well as a protocol for scoring the indicators. The questions are about different characteristics of forest governance. The purpose of the tool and document is to develop a way to assess forest governance and identify the areas that need improvement. One of the shortcomings of the tool is that it primarily focuses on the aspects of forest governance involving state actors and their formal interests as well as de facto governance. For this reason, I took inspiration from the questions and modified them to fit into the context of analyzing a wide range of actors, not just state actors and formal laws and regulations.

## 1. Case Study: Brazil

Brazil is an interesting case study for a variety of reasons. The Amazon Forest is massive and has a great amount of biological, ecological, and socio-cultural diversity. Besides its

ecological value it is also home to a variety of ethnic groups including indigenous and local communities that directly rely upon forest resources. The country's sheer size, its politics, and the iconic Amazon Forest has kept it in the public eye for decades.

In 2018, Brazil made international headlines when it elected Jair Bolsonaro, a right-wing politician who brashly declared Brazil's forests are a commodity to be used for economic gain and therefore ripe for mining, timber, and raising of livestock. Bolsonaro dismantled years of progress that NGOs, international organizations, and previous administrations had made. Bolsonaro relished an outspoken and controversial image, threatening to pull Brazil from the Paris Agreement. He reignited the debate over the proper balance between preservation of resources and exploitation. The conservative Bolsonaro lost a close election in 2022 to a more liberal Luiz Inacio Lula da Silva who took office in January 2023. Lula (as he is commonly referred to) was previously President of Brazil from 2003 to 2010 and in his most recent campaign, he has sworn to end destruction of the Brazilian Amazon (Spring 2023). Under his first two terms (2003-2010), deforestation steadily decreased in Brazil, before reaching an all-time low in 2012 when it began to rise again. Still Lula, at times was criticized for prioritizing economic development over environmental concerns (Osborn 2022). In his third term, Lula will need to revitalize government institutions, rebuild international obligations, and craft a framework to guide his administration's environmental policy. By coordinating policy actions and environmentally focused NGOs, Lula can begin to reverse the environmental damage in the Brazilian rainforest, an initiative which experts and environmental officials have warned could take years (Araujo 2023).

Agriculture businesses drive most forest crimes in Brazil. The long-standing pattern: larger farmers come in and push local and Indigenous people off the land to raise and graze their

cattle, grow soybeans, or extract rubber from trees. It echoes aspects of a governing of the commons that excludes many groups that could otherwise benefit.

## 1.1 State Actors

The Brazilian government has several obligations to their citizens to engage in good forest governance as outlined by Brazil's constitution. These include protecting “all [citizens rights] to an ecologically sound environment” and recognizing the rights of Indigenous peoples to “the lands they traditionally occupy” (Human Rights Watch 2019). These lands are “those on which they live on a permanent basis, those used for their productive activities, those indispensable to the preservation of the environmental resources necessary for their well-being and for their physical and cultural reproduction, according to their uses, customs and traditions” (Human Rights Watch 2019). The constitution also assigns the federal government with the obligation to demarcate and protect indigenous lands (Human Rights Watch 2019).

Several agencies within the Brazilian government have the duty to uphold these constitutional principles. These include Brazil's National Space Research Agency (INPE), Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), the Chico Mendes Institute for Biodiversity Conservation (ICMBio), the National Indigenous People Foundation (FUNAI), and the Ministry of Environment. INPE, Brazil's space agency, helps to provide information and data on land cover with its satellites. IBAMA implements laws against deforestation. ICMBio is the Ministry of Environment's administrative arm and can propose, implement, manage, protect, enforce and monitor the conservation of already established protected areas (DEVEX n.d.). FUNAI is responsible for mapping out and protecting lands traditionally inhabited and used by Indigenous communities. The Ministry of the Environment

constructs and enforces national environmental policies and has several agencies under its control.

Forest governance is more decentralized in Brazil. The ways that the government engages in environmental and forest governance in Brazil varies state by state and from one municipality to another. According to a government review report from the Organization for Economic Cooperation and Development (OECD) “All states and many large municipalities [in Brazil] have their own environmental institutions (Figure 4), but their level of development varies considerably, and their capacity is often limited. Despite progress, states and municipalities do not consistently monitor the state of the environment and the outcomes of their environmental policies” (OECD 2022). This decentralized approach and lack of oversight calls into question the effectiveness of the state in implementing good forest governance which warrants an external evaluation, as laid out below.

### 1.1.1 Participation

The Brazilian constitution guarantees and regulates pathways to participation. Brazil has entities called *colegiados* (collegial bodies) that contain government representatives and non-public stakeholders representing specific policy areas to include the environment. Stakeholders conference to gather information, opinions, and issue guidelines to facilitate policy formation (OECD 2022). Other collegiate bodies are councils that provide more permanent pathways to participation. One of them is the National Council of the Environment (CONAMA) created by the constitution to focus on the Environment (OECD 2022). The CONAMA was established in 1981 under the National Policy for the Environment Act as part of the National Environment System's framework. The Council functions as a deliberative and advisory body and provides

advice, conducts studies, and proposes guidelines and policies on environmental matters to the Government Council and environmental agencies. It also has the authority to deliberate on environmental standards and regulations within its jurisdiction to promote an ecologically balanced environment that supports healthy living standards. Additionally, when requested by the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA) and other organs of the National Environment System the Council sets standards and criteria to license potentially polluting activities. The Council also conducts studies on the potential environmental impact of public or private projects, requests information necessary for environmental impact studies and reports, and oversees works or activities that may cause significant environmental degradation in areas under national heritage (Pogrebinschi 2017).

A similar council exists that specifically regulates the participation of indigenous communities in several policy areas. In 2015, Decree n° 8.593 established formal mechanisms for participation of Indigenous communities and facilitated the creation of the National Council of Indigenous Policies (CNPI) (OECD 2022). This Council functions in a similar way to CONAMA. CNPI is made up of the presidency, vice-presidency, executive secretary, plenary, and six thematic chambers. The plenary meets quarterly, and issues resolutions signed by the president and published in the Official Gazette of the Union. The CNPI's main competencies are to propose public policy objectives, monitor their execution, support the integration and articulation of governmental and non-governmental organizations, and promote events for the improvement of policy proposals for indigenous peoples. The CNPI also monitors the Union's budget and receives and forwards complaints of threat or violation of indigenous peoples' rights (Ferreira, Santano, and Santos 2021).

In 2019, Bolsonaro completely restructured these Councils, significantly reducing the number of non-government members and increasing the percentage of federal government officials (Human Rights Watch 2019; OECD 2022). This resulted in a reduced role of civil society members on the Council and minimized Indigenous and local peoples' participation in Brazil's main grievance pathways at the national level.

In 2019, Law 13848 created a participatory framework (public consultations and public hearings) for all Agencies in the regulatory system in Brazil (OECD 2022). The list of regulatory agencies include: the National Electric Energy Agency (ANEEL), the National Agency for Petroleum, Natural Gas, and Biofuels (ANP), and the National Mining Agency (ANM) (President of the Republic 2019). Not much information has been provided on the impact of this participatory measure since its introduction, but this measure shows the lengths to which Bolsonaro went to extinguish participatory measures for environmental agencies while choosing to expand the participation of others.

State and local governments in Brazil also have pathways for participation. These include State Environment Councils and Municipal Councils of the Environment. The Councils, which are composed of both government and civil society representatives, have the primary purpose of discussing and proposing guidelines for the State Policy for the Environment. The State Environmental Councils work to guide the Secretary of State for the Environment and other related institutions in their application of these guidelines and provide direction to the State Government in terms of environmental management. Municipal Councils of the Environment are advisory bodies that provide recommendations to the city hall, secretariats, and municipal environmental organs on environmental issues. They also serve as a regulatory forum for decision-making within their jurisdiction. The Council's responsibilities may vary by



municipality, but typically include proposing and monitoring environmental policy, promoting environmental education, proposing and regulating legal norms, advising on state and federal policies that impact the municipality, and investigating complaints of environmental degradation from the public and suggesting appropriate measures.

Other participatory pathways for IPLCs have not had meaningful success. In 2019, an independent report from Human Rights Watch (HRW) found that IPLC complaints are routinely ignored. In the state of Pará, Indigenous people were said to have filed numerous complaints to the government after losing a combined 52 square kilometers of land to illegal deforestation in July 2019 alone. This resulted in the Xikrin Indigenous people of Trincheira taking matters into their own hands and expelling loggers and ranchers that were illegally occupying the land (Human Rights Watch 2019).

While Brazilian state actors provide several pathways for stakeholder participation in the forest governance process, there is room for significant improvement. While participation for IPLCs is provided in national and regional councils, they were undermined by Bolsonaro and have yet to be fully restored.

Brazil is rated high with room for improvement on the participation it affords groups across society.

### 1.1.2 Capacity for Enforcement

For Brazil to effectively govern their commons there must be a legal framework for environmental protection as well as enforcement mechanisms, but research shows this does not always occur. In some cases, de facto enforcement of forest laws must be facilitated by Indigenous people and NGOs. Still there are formal (de jure) laws in place that protect the

environment. These laws include Law 6.938 of 31 August 1981: National Environmental Policy Act, Law 9.605 of 12 February 1998: Environmental criminal and administrative offenses, and Law 12.651/2012: Forestry Law.

The 1982 National Environmental Policy Act is based on specific articles of the Federal Constitution. The Act outlines the National Environmental Policy and its objectives, methods of development, and implementation. It establishes the National Environmental System, the National Environmental Council (NAENVCO), and the Federal Technical Register for Activities and Instruments of Environmental Protection. The aim of the National Environmental Policy is to maintain, enhance, and restore environmental quality to support a healthy life and ensure socio-economic development, national security, and the protection of human life. The NAENVCO's structure, responsibilities, and operations are governed by the Executive. The law also prescribes penalties for violating federal, state, and municipal regulations and failing to implement measures to prevent or correct damage caused by environmental degradation (FAO 2020b).

A 1998 Environmental Crime Law puts into place “punishment for individuals and companies for harming the environment, such as harvesting timber in government-owned forests and transporting, buying, or selling illegally harvested timber. Punishment includes prison sentences for individuals and for companies, suspension of activities and a prohibition on signing contracts with the government.” (Human Rights Watch 2019).

The 2012 Forestry Law “regulates the protection, and sustainable use and exploitation of native forests and other indigenous plants” (UNEP LEAP 2012). The Law also aims to encourage economic growth in specific regions by recognizing the value of natural resources such as forests and indigenous plants while conserving national forests, habitats, biodiversity,

soil, and water resources for the benefit of future generations. The Law acknowledges the critical role that rural production plays in protecting and restoring natural forests, and sustainable agro-forestry production (UNEP LEAP 2012). It treats private forests equally with public ones and mandates the sustainable use of forest resources in accordance with national environmental, water, and land policies. Critics of the law state it puts development above environmental protection. One of the provisions allows for Amazon states that have protected at least 65% of their territory as conservation units or Indigenous reserves are able to reduce the percentage of native vegetation that must be conserved on private lands. The Law also pardons certain instances of illegal deforestation if it occurred before 2008 (Asher 2019). This Law has the potential to cause more resource depletion while signaling lack of consequences for previous infractions.

The capacity for enforcement for these de jure laws has been called into question due to the undoing of many safeguards in place as well as the reallocation of resources. Under the Bolsonaro administration the government slashed budgets and personnel of key agencies that punish and monitor forest crimes. The discretionary budget of the Ministry of the Environment was cut by 23% and 21 out of 27 of IBAMA's regional directors that approve anti-logging operations were fired with the positions being unfilled for months (Human Rights Watch 2019). This resulted in soaring rates of deforestation with one report stating that 98% of deforestation alerts were not investigated. According to lead author Marcondes Coelho-Junior, from the Federal Rural University of Rio de Janeiro, "The government receives alerts of deforestation, yet we don't see this being transformed into action .... "It's not a lack of information that's causing inaction. It's not like [the government] didn't know there was deforestation. But due to environmental policy weaknesses, there wasn't any regulatory action for those alerts" (Brown

2022). This further demonstrates the dismantling of federal mechanisms for enforcement in Brazil under Bolsonaro.

Even before Bolsonaro the government had trouble with enforcement. Prior to 2012, Brazil had a program that successfully curbed deforestation using satellite imagery to locate and shut down illegal logging sites. The Government also had success creating areas that placed special legal restrictions on land-use to protect the forest. But recently these mechanisms for enforcement have not been working. This is due to loggers using techniques to remove trees that satellites have a harder time detecting in addition to budget and personnel cuts (Human Rights Watch 2019).

The government has been called out by organizations for other enforcement failures that jeopardized the safety of the citizens it's vowed to protect. For example, in 2004 the government established the program, Human Rights Defenders Protection Program (PPDDH), to protect human rights activists and by extension environmental activists. The Brazilian Ministry of Human Rights reports that most of the cases monitored by this program are linked to agrarian disputes and land related rights involving indigenous people, as well as environmental protection (Brazilian Ministry of Human Rights n.d.). This program should protect against death threats, yet in interviews conducted by Human Rights Watch, forest defenders and government officials have stated that there is little actual protection. Interviewees stated that the main action taken because of these concerns are mere phone check-ins (Human Rights Watch 2019). Violent transgressors in the Brazilian Amazon are rarely brought to justice. Out of 300 killings registered since 2009, only 14 went to trial. Police acknowledge the difficulty of investigating crimes that tend to occur in remote communities (Human Rights Watch 2019). This type of action or lack thereof puts activists at risk of bodily harm and death.

The Brazilian agency FUNAI's, main function is to protect and promote the rights of Indigenous people in Brazil. It does this through demarcating and protecting land from exploitation. Under Bolsonaro, FUNAI's ability to fulfill its responsibilities was difficult. Bolsonaro appointed Marcelo Xavier da Silva, who has strong links to agribusiness, to the head of the agency. Bolsonaro also attempted to move FUNAI's decision-making power to demarcate Indigenous territories to the Ministry of Agriculture directly putting Indigenous rights at odds with the interests of agribusiness. Thankfully this move was blocked by Brazilian Supreme Court Judge Luis Roberto Barroso in June 2019 (Reuters Staff 2019). The Bolsonaro administration made many attempts to dismantle the rule of law surrounding forest governance. Fortunately, there are some mechanisms in place that prevented his administration from fully crippling the rule of law.

Brazilian state actors have a moderate number of enforcement mechanisms in place to include checks and balances in place between different government agencies. However, administrations have the ability to cripple enforcement capacity and the sheer size of the country complicates the ability of even an environment-friendly government to enforce protections. The state of Brazil's capacity for enforcement is low with room for significant improvement.

### 1.1.3 Accountability

As stated above, Brazil has several institutional safeguards in place that in theory should allow for the environmental protection and prevent resource depletion, yet there have been several instances where accountability was flouted across administrations.

President Lula da Silva is currently serving his third term as Brazil's president. In his previous tenure (2003 to 2010) Lula advocated for the building of the Belo Monte dam on the

Amazon River, maintaining that it would create many jobs. It displaced 50,000 indigenous people and compromised the ecosystem of the surrounding area (Sousa 2021). Brazil's Federal Public Prosecutor's Office filed a lawsuit to stop the dam. The building of the dam was said to violate Convention 169 of the International Labor Organization (ILO-169) and the Brazilian law (10.088 of Nov. 5, 2019, formerly 5.051 of April 19, 2004) that requires consultation of affected Indigenous people to obtain free, prior and informed consent for projects (Fearnside 2021). A Brazilian judge in 2011 blocked construction of the dam citing 29 environmental criteria that have not been met. Still Lula and his successor, President Dilma Rousseff, continued to support the dam and appealed against any rulings that opposed the building of the dam (UNHCR 2012).

Lack of accountability was a hallmark of the Bolsonaro regime. CONAMA was filled with those indifferent to sound forest management practice and instead skewed toward Bolsonaro's view. The head of the environmental unit at the Attorney General's office in Brazil, Nicolão Dino, stated that with the actions taken on behalf of Bolsonaro's agenda demonstrated that "the official mechanisms of accountability are being dismantled" (Human Rights Watch 2019).

It is also important to note that regional state actors stepped in to make up for the lack of accountability. Regional government actors announced their commitment for international agreements such as the Paris Climate Accord even after Bolsonaro expressed uncertainty about staying in the agreement. The Paris Climate Accord is a pledge to act to significantly reduce a certain percentage of emissions by 2025. Twelve state government representatives, who represent states that account for half of Brazil's emissions, announced their continued support for the agreement (Spring 2019). This demonstrates a willingness on some accounts for regional actors to bridge the absence of accountability on the part of key central government actors.

Brazilian state actors have a long way to go to hold themselves and other stakeholders accountable. Leadership from the top down will strengthen governance. The state of Brazil's mechanism for accountability is low with room for significant improvement.

#### 1.1.4 Transparency

Transparency mechanisms are essential to ensure accountability and prevent corruption in government programs. However, Human Rights Watch, among other organizations, accused the Brazilian government of concealing its true intentions and undermining deforestation prevention programs (Human Rights Watch 2019).

Under Bolsonaro the government accused the Amazon Fund of financial malfeasance and moved to reduce its effectiveness. The Amazon Fund's goal is to preserve the Amazon and is administered through Brazil's development bank, BNDS. Ricardo Salles, Minister of the Environment, under Bolsonaro, asserted there were irregularities "in 100 percent of the contracts with NGOs" while providing no evidence and asked for the Fund to not approve any more projects (Human Rights Watch 2019). This has been seen by many NGOs as a thinly veiled tactic to reduce the role of civil society so that exploitation of the Amazon can continue.

Another concerning finding is that the Bolsonaro government made efforts to conceal policy changes and issued directives undermining deforestation prevention programs— using verbal rather than written communication. One instance is the instruction given to agents to "leave intact the vehicles and equipment they find at remote illegal logging sites, rather than destroying them as they are authorized to do by Brazilian law" (Human Rights Watch 2019).

State laws in Brazil require that animal health control agencies register cattle farms and farmers with some states going as far as having government officials visit the farms and record

the geographical location of the farm. Another institutional responsibility of states and state animal health control agencies is the task of registering and monitoring cattle movements through the issuance of Animal Transport Permits. This shows the movement of animals from one farm to another or from farm to meat-packing facility (Amnesty International 2020).

Amnesty International found that the Brazilian state of Rondônia's Public Prosecutor Office filed a lawsuit against Rondônia's animal health control agency, IDARON, "to oblige the agency to refrain from issuing Animal Transport Permits, veterinary certificates and technical assistance for cattle in the Rio Jacy-Paraná Reserve" (Amnesty International 2020). This is due to the finding that IDARON was enabling illegal cattle ranching to continue in Rondônia by issuing Animal Transport Permits for cattle movement in protected areas and not being transparent in its monitoring practices. The cattle related data compiled by IDARON is also not publicly available and accessible on its website proving a lack of transparency in its process of tracking (Amnesty International 2020). This absence of transparency in the tracking process is commonplace among other regional governments of Brazil and represents a systemic flaw in the governance of land.

Additionally, some agencies have duties to provide environmental information in Brazil. INPE, Brazil's space agency, provides information on deforestation from its satellites showing in recent years that deforestation and burning practices have accelerated under Bolsonaro's administration. Bolsonaro pushed back claiming that the increase in deforestation was exaggerated and the data was skewed. Bolsonaro's opposition resulted in the eventual ousting of the agency's head (Butler 2019). Which significantly altered the agency's ability to provide clear and unbiased information on deforestation.



While accountability and transparency mechanisms are in place there are too few to do an adequate job. While Bolsonaro worked to disguise his activity, one government agency, INPE brought them to light.

## 1.2 NGOs

NGOs' presence in Brazil is substantial. NGOs range from large international organizations to national and then more local NGOs that can be characterized as civil society groups. Larger NGOs like Human Rights Watch, Amnesty International, as well as IGOs such as the UN help to facilitate several programs in Brazil that benefit the environment and human rights. Smaller NGOs like SOS Mata Atlântica may partner to facilitate better on the ground efforts for these larger NGO or government agencies. Large NGOs and small ones alike can help to play vital roles in accountability and transparency by providing information.

The UN has several programs such as REDD+ that directly influence forest governance in Brazil. These programs allow the participation of governmental donors using supported NGOs and government backed initiatives. Brazil and Indonesia receive two-thirds of REDD+ funding. In the case of Brazil, the Amazon Fund is the main mechanism created by REDD+ to disperse funds for the protection of the Amazon. Brazil's Development Bank, BNDES, monitors the Fund. BNDES is connected to the Ministry of the Economy, potentially putting environmental interests at odds with economic and development goals. The largest donors of the Fund are the Government of Norway, the Federal Republic of Germany, and Petrobras (a state-owned Brazilian oil and gas corporation)(Government of Brazil 2023).

### 1.2.1 Participation

NGOs operate several programs that work to strengthen and exercise governance in Brazil. Organizations such as Human Rights Watch, Amnesty International, Mongabay, the Pastoral Land Commission (CPT), and the Indigenous Missionary Council (CIMI) help to collect and disseminate information from IPLCs in Brazil, which is vastly important in advocacy frameworks (Keck and Sikkink 2002). They work within organizations to connect with voices from minorities that would not usually be heard through traditional advocacy processes.

Civil society organizations in the Amazon region play an important role in supporting IPLCs and reporting illegal logging. One of the pathways they use is CONAMA and CNPI as mentioned above in the state actors' section 1.1.1.

Civil society groups have the power to organize and help to file complaints of threats and attacks on behalf of IPLCs (Human Rights Watch 2019). Some groups also publish regular reports about conflicts and violence within the Amazon. The CPT publishes yearly reports on conflicts over land and resources with the help of information attorneys in Brazil provide to the organization. CIMI also compiles cases in which violence occurs against Indigenous people in Brazil and around the world (Human Rights Watch 2019). Both organizations are connected to and started by Catholic leaders in the community, emphasizing the importance and influences that religious leaders wield in these communities. Organizations like this help to fill the gaps when state actors fail to adequately incorporate IPLCs into the policy making process.

SOS Mata Atlântica and other NGOs participate in the UN Conference of the Parties (COP) to provide information on how to combat climate change. In addition to this SOS Mata Atlântica conducts studies on emissions in certain areas of Brazil and has an initiative called Atlas of Forest Remnants in the Atlantic Forest with the INEP to provide deforestation data

(SOS Mata Atlântica 2021). Smaller NGOs like this one helps to supplement the capacity of larger entities.

The participation mechanisms within NGOS are ranked as high due to their ability to collect information giving them strong insights into actors they choose to scrutinize.

### 1.2.2 Capacity for Enforcement

NGOs can be subjected to the whims of funding in ways that governments are not which can limit their capacity for enforcement. REDD+ projects are typically funded by foreign governments and run by NGOs. The REDD+ program tends to take on projects aimed at producing results that show reduced deforestation. The funding of REDD+ programs is inconsistent at times due to their internal processes (Hang 2018). Funding occurs in three stages in REDD+: readiness, implementation, and payment for results. Most donors have pushed for their monetary contributions to be used for the last stage: payment for results. This arrangement is problematic because for there to be results in a project there needs to be initial funding for the first two stages. In general, most projects do not have enough initial funding to get projects off the ground, let alone have funds to show results from their efforts. The outcome is that projects fail before they even begin (Hang 2018).

The Amazon Fund provides funds to smaller REDD+ projects. The Amazon Fund is a program created by Brazil to disburse foreign donations when the country shows progress in reducing deforestation. The fund has received over \$820 million in donations, mostly from Norway and Germany. The federal and local governments have received 60% of the funds, and NGOs have received the rest to finance projects (Human Rights Watch 2019). One of the programs, Bolsa Floresta, is a payment for the Ecosystem Services (PES) initiative that provides

a small economic reward to groups that maintain the land and forgo commercializing resources. The program is in Uatumã and Juma in the states of Amazonas in Brazil. Most respondents to a survey (62% and 77% for Uatumã and Juma) about the program mentioned the need to increase the amount of payment to make the program worthwhile for lost income. The Bolsa Floresta program also emphasizes the building of capacity in local communities to assist in monitoring for the program which helps to enforce good general forestry practices (Bakkegaard and Wunder 2014). Bolsa Floresta is expected to prevent an estimated 3.6 million tCO<sub>2</sub>e, and 190 million tCO<sub>2</sub>e by 2050 according to a crediting period from 2006 to 2014 (Bakkegaard and Wunder 2014). Yet it is important to note that Bolsa Floresta's success is largely dependent on which areas it is implemented. The successful cases are in communities that are homogeneous, subsistence-oriented, have already pre-existing rules that are similar to the program's rules and have low deforestation pressure in target areas (Bakkegaard and Wunder 2014). This suggests that REDD+ programs' ability to prevent resource depletion is based on several factors within a given project and the area in which it is operating.

Interestingly, when collegiate bodies of Brazil were terminated with Decree N° 9,759 of April 11, 2019, so were, COFA and CTFA, the committees guiding the Amazon Fund's governance. This was significant as COFA monitors application of resources and ensures that initiatives supported by the Amazon Fund are in line with guidelines of REDD+. CTFA validates emission data to determine how much funding needs to be raised for the next year. Both are crucial to monitor and enforce guidelines of the Fund. Still the Amazon Fund committed to keeping in line with its principles even after the termination of the committees by the Bolsonaro Administration. Unfortunately, the terminated committees led to Norway suspending a planned donation of \$33 million to the Amazon Fund. The possible end of support from the Amazon

Fund could reduce the capacity to fight illegal deforestation, as the fund provides financial support to states and IBAMA for fighting forest fires and enforcement operations (Human Rights Watch 2019).

Organizations like the CPT and the CIMI provide information to help enforce laws. In one incident both groups reported an incident in Maranhao state between cattle ranchers and the Gamela tribe. The tribe reclaimed land from the cattle ranchers and were then attacked by dozens of men. The report filed by CPT and CIMI allowed for Brazilian Justice Minister Osmar Serraglio to send federal police to investigate and prevent future conflict (Reuters 2017).

While there are many challenges to obtaining resources for enforcement, NGOs within Brazil are relatively successful in carrying out their respective initiatives. For this reason, NGOs rank high with capacity for enforcement with room for improvement.

### 1.2.3 Accountability

The Brazilian Civil Society Organizations Law (Law No. 13.019/2014), which governs the interaction between the government and civil society organizations, including NGOs, sets the legal framework for NGOs engaged in forest governance and conservation in Brazil. NGOs must abide by certain administrative and financial regulations under this legislation, including regular reporting to the government on the use of public funds (Weber, Lermen, & Souza 2019).

Brazilian NGOs involved in forest governance and protection frequently collaborate with other groups and with governmental institutions to carry out projects and programs. These partnerships typically involve formal agreements that outline each party's duties and contain clauses for assessing project outcomes.

In terms of accountability mechanisms, REDD+ programs in Brazil are typically subject to a range of monitoring and evaluation processes to ensure transparency and effectiveness. For example, the Brazilian Forest Service, which is responsible for overseeing REDD+ programs, conducts regular audits and evaluations of projects to ensure they follow relevant regulations and achieve their stated objectives.

NGOs play a crucial role in promoting transparency and fostering accountability in forest governance in Brazil. NGOs often conduct research, monitor government policies and programs, and engage in advocacy and public education to promote greater awareness and understanding of environmental issues. They also work to hold government officials and agencies accountable for actions related to forest governance, using tools such as public campaigns, media outreach, and legal action when necessary.

The CPT and the CIMI provide meaningful support accountability mechanisms in Brazil with their data on violent incidents in the Amazon including killings. CIMI focuses primarily on the rights of Indigenous peoples, meanwhile CPT is the sole organization that conducts comprehensive research on all land disputes across the country, regardless of the affected parties. CPT reported that in a 10-year period from 2011 to 2021, there were 10,293 land conflicts occurring over possession of rural territories. Year after year the number of conflicts is steadily rising. Deaths are also rising, in 2021, 176 Indigenous people were murdered. NGOs like Global Witness relies upon this data to create reports on human rights abuses occurring in the Amazon (Climate Counsel 2022). All these efforts combined help to hold government officials accountable to put forth efforts to prevent this kind of violence and redress violent actions already taken.

The accountability mechanisms within NGOS are ranked as high with room for improvement. To a significant degree, NGOs have accountability built into their framework allowing them to hold themselves and other actors accountable.

#### 1.2.4 Transparency

Many NGOs aim is to provide transparency in the governance process so that other actors can be held accountable for their actions. Still, it is vital that NGOs themselves have transparency to ensure that their donor support is being used in the most effective way.

In the Amazon Fund, there are several mechanisms in place to provide transparency. This includes annual reports which show its funding activities of projects. The Amazon Fund also has independent audits by third parties that ensure it is complying with international and state-wide regulations. There are also representatives from NGOs and civil society organizations that oversee the fund's activities (German Cooperation for Sustainable Development 2022).

Similarly large NGOs have transparency mechanisms in place and can hold each other accountable as was the case with Greenpeace and Mongabay calling out REDD+ projects (Nasi and Thuy 2023). As stated above, organizations like the CPT and CIMI provide information on agribusinesses and IPLCs involved in conflicts. These checks and balances allow NGOs in Brazil to rank as high in terms of transparency.

### 1.3 Agribusiness

There are several businesses that are involved in agriculture that contribute to violence, conflict, and resource exploitation in the Brazilian Amazon. Some of the biggest commodity markets that these companies profit from are cattle ranching, soy plantations, and rubber. The

main transnational beef companies that profit off Brazil's natural resources are: JBS, Marfrig, and Cargrill.

JBS is implicated in several audits that allege its involvement in sourcing cattle from deforested areas. In one incident, JBS bought cattle that resulted in an estimated 38,000 hectares of deforestation (Global Witness 2019). This finding comes after JBS's public commitment to Greenpeace, agreeing to never purchase cattle from suppliers who had deforested land after October 2009. JBS made other similar agreements with IBAMA (Brazil's environmental agency), and local Amazonian state governments such as in Para, Brazil (Global Witness 2019). JBS is backed by banks such as Brazil's development bank (BNDS), the American Capital Group, Deutsche Bank, and Blackrock (Global Witness 2019).

BlackRock also has a large stake in many other agriculture companies. It is estimated that BlackRock holds over \$2.5 billion of shares in these agri-companies, "including over 5% of available shares in ADM and Bunge [large palm oil companies]; finance researchers call ownership above 5% of all shares 'blockholding' and generally assume it to imply significant influence over corporate governance" (Amazon Watch 2019).

On a national and more local level there are large landowners that contribute to inequality in forest use through several formal pathways. These individuals are called Ruralistas and represent a conservative congressional bloc that are pro agriculture and tend to be at odds with indigenous and local people's interests (Amazon Watch 2019).

### 1.3.1 Participation

Many large companies participate and are party to agreements with NGOs and the government to prevent practices that contribute to exploitation of the forest. In 2009, three of the



largest meat-packing companies in Brazil: JBS, Minerva, and Marfrig all signed separate zero-deforestation agreements, called “Public Livestock Commitments”, with Greenpeace. JBS also made an agreement with the Federal Public Prosecutor's Office in Brazil (Amnesty International 2020).

As mentioned, JBS has a poor environmental track record, purchasing cattle from farms that are involved in deforestation in the Amazon, cited for having poor working conditions for laborers, operate on indigenous or environmentally protected lands, and are involved in rural conflict. Amnesty International’s discovery of cattle in JBS’s supply chain that had illegally grazed within protected areas further tarnished JBS’s reputation (Amnesty International 2020). Various violations of Greenpeace's agreement with JBS caused Greenpeace to suspend its agreement with the company.

JBS also seems to lack good pathways for participation. Amnesty International found that by the criteria set by the UN Guiding Principles, JBS has played a part in human rights abuses against IPLCs through their participation in pursuing economic incentives driven by illegally grazed cattle (Amnesty International 2020). Smaller actors, namely cattle farmers, commonly make threats. In one case, cattle farmers threatened a resident of the Rio Ouro Preto Reserve, in the state of Rondônia. A resident of the reserve, Marisa, spoke about a dispute in April 2020 with a cattle farmer. Marisa stated that “He came to me and said I should no longer plant there because it was his land and if I continued planting there, there would be a problem for me. I was alone with my two children. We decided to continue. One week later, when I was not there, he went and destroyed all my garden plots” (Amnesty International 2020).

Agribusinesses are unable to implement monitoring systems and redress grievances on multiple levels. Consequently, they are a net negative with respect to forest governance.

### 1.3.2 Capacity for Enforcement

While these companies claim to participate in agreements and enforce the conditions of these agreements to prevent exploitation of the Amazon this sometimes is not possible due to a lack of allocated resources. For example, while it is supposed to have monitoring practices in place for its supplier this is not the reality. JBS claims to analyze 50,000 direct suppliers of beef in the Brazilian Amazon every day. JBS claims that during the period of 2013-2017, 99.9% of its cattle purchases were compliant with their policies (Amnesty International 2020). Still JBS has not created a system to monitor its indirect suppliers. Even though part of their 2009 agreement with Greenpeace was to monitor its indirect suppliers by 2011. The indirect suppliers in question were said to have illegally grazed cattle in several different states of the Amazon (Amnesty International 2020).

For their part, it is important to note that JBS was one of the few meat packing companies to sign the Greenpeace and Federal Public Prosecutor agreement. Yet, according to a public prosecutor that developed the agreement there are many large monitoring loopholes that allow the meat-packing company and the Prosecutor's Office to go unchecked in their duties. In the agreement signed by JBS, Minerva and Marfrig these agreements fail to apply penalties in the event of non-compliance with any of the provisions (Amnesty International 2020).

Agribusinesses have not invested the time or resources to enforce agreements that prevent deforestation. Due to these failures and lack of follow through, agribusinesses rank low in capacity for enforcement with significant room for improvement.

### 1.3.3 Accountability

These agreements and participation from companies may not go according to plan. In the case of JBS, Greenpeace suspended their agreement due to breaches on the part of JBS. This is due to the fact that JBS has been aware of the risk of illegally raised cattle entering the supply chain for several years (since at least 2009) and yet has not implemented preventive measures (Amnesty International 2020; Global Witness 2019).

Similarly financial institutions have also made a commitment to forest preservation. Deutsche Bank revised its environmental policy in 2017 stating that it would not knowingly finance projects that facilitate the clearing of primary tropical forests. And yet, in April of 2019 the Bank held over \$11 million in JBS shares (Global Witness 2019).

A report by Global Witness disclosed that major financial institutions such as Barclays, Deutsche Bank, HSBC, Santander, and Standard Chartered have provided billions of dollars in financing between 2013 and 2019 to companies that are directly or indirectly involved in deforestation in the world's biggest rainforests. Leading investment banks, including JPMorgan Chase, Goldman Sachs, Bank of America, and Morgan Stanley, are also involved. This involvement in deforestation ignores their company policies and in turn generates more resource depletion in the Brazilian Amazon (Global Witness 2019).

These lapses of accountability and failure to apply company policy rank agribusinesses as low with substantial room for improvement.

### 1.3.4 Transparency

Transparency is not practiced adequately in many cases in agribusiness dealings in Brazil. As previously mentioned, Amnesty International reported that JBS does not have

working mechanisms in place to accurately report the purchase of illegally raised cattle on the part of its indirect suppliers (Amnesty International 2020).

JBS also has fought any consequences of their actions. The company has failed to pay fines and take responsibility, instead appealing the fines. JBS's Animal Transit Permits, that track the movement of cattle, are also not publicly available. JBS claims this is due to monitoring difficulties (Amnesty International 2020). However, as a large billion-dollar company it has the resources to implement better tracking strategies.

In the last fifteen years, an increasing number of financial institutions have pledged to address deforestation. A group of 56 investors managing \$7.9 trillion has called for “no-deforestation” policies in the palm oil industry. Twelve banks including: Santander, Barclays, Deutsche Bank, and JP Morgan committed to achieving net zero deforestation by 2020 in the soy, palm oil, beef, and pulp/paper supply chains of approximately 400 companies worth \$3.5 trillion euros combined. However, there is a lack of transparency and accountability in implementing these commitments, and its signatories have missed their 2020 target goals. Major financial institutions still invest heavily in companies that contribute to deforestation, violating their own policies and public commitments calling into question the transparency of their practices (Global Witness 2019).

Large banks continue to invest in companies that contribute to deforestation despite vowing to cease this practice. The lack of transparency in operations of agribusinesses rank them low with a wide margin for improvement.

## 1.4 Indigenous People and Local Communities

In Brazil, Indigenous people and local communities play an important role in forest governance. They report illegal activity and allow for enforcement on the state level as well as taking on informal enforcement themselves when the government fails. It is reported that of the 69 million hectares (170 million acres) of natural vegetation that Brazil has lost over the past 30 years, only 1.6 % of it was situated on Indigenous lands. This is significant considering that Indigenous reserves in Brazil make up 13.9 percent of the country's land, which includes 109.7 million hectares (271.1 million acres) of natural vegetation, amounting to almost a quarter of the nation's total area (Al Jazeera 2022). In many instances on these native lands “forest defender” groups report crimes and actively expel offenders off the land. This important, albeit informal role, complements and sometimes fills the gap as Brazil’s environmental agencies have had a reduced ability to deploy inspectors and monitor protected territories (Human Rights Watch 2019).

Another group that resides near and relies upon the Brazilian Amazon are smallholders, many of which first moved to the Amazon around the 70s and 80s when it was opened to industry. For the purpose and clarity of this section: local people are those that do not engage in the commercialization of forest resources. The smallholders reside mostly along the two main highways, the BR-101 and the BR-116. While many local smallholders have been swallowed up by larger agribusiness actors and engage in agriculture commercialization, most smallholders are land poor and use forest resources and land for subsistence or non-market activities.

Furthermore, in 2019, Mongabay reported that “Brazilian agro-industrialists own 800,000 farms which occupy 75.7 percent of the nation’s agricultural land, with 62 percent of total agricultural output. Further defining the inequity, the top 1.5 percent of rural landowners occupy

53 percent of all agricultural land” (Gross 2019). The impacts of deforestation from larger entities jeopardizes smallholders' livelihoods, which means that in many cases smallholders interests align with Indigenous people in Brazil.

#### 1.4.1 Participation

There are many different tribes and identities among Indigenous people and local communities in the Amazon. There are about 256 ethnic groups, a portion of which are in voluntary isolation and they speak over 150 languages according to data Instituto Socioambiental received from Brazilian Institute of Geography and Statistics (IBGE) (Instituto Socioambiental 2018). This is due to its immense size of the Amazon spanning eight South American countries, with the bulk within the borders of Brazil. This means that Indigenous groups within the Amazon biome transcend the social and political boundaries of Brazil.

Despite the isolation of these groups there is contact and participation in the creation and execution of forest governance policy. These isolated and certainly more accessible and contacted groups keep contact with FUNAI. There are also organized groups such as the Union of Indigenous Peoples of the Javari Valley (UNIVAJA) which advocates for the rights of Indigenous people in the Javari Valley and elsewhere in Brazil. In fact, the UNIVAJA group was the first to report on the disappearance of a journalist and an indigenous expert on June 5, 2022 that made national headlines (UNIVAJA 2022).

The pathways for participation for local people in Brazil include organizations such as the National Council of Extractivist Populations (CNS) which created the Chico Mendes Memorial (MCM). The CNS represents smallholders that identify as agroextractivist workers (those who extract natural resources from the forest while maintaining the forest's ecological

balance). The MCM provides technical assistance to extractivist social movements. The mission of the organization is to defend the environment, preserve Chico Mendes' (famous defender of the Amazon) ideas, legacy, and struggle, and promote sustainable development in extractive communities of the Amazon. The organization also works to influence national and local policy (Brandão 2018).

According to the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) and the federal police, Indigenous peoples and local communities have historically played a significant part in assisting government authorities by providing information about unlawful logging operations. In recent times, this role has become even more critical due to the loggers' adoption of strategies to evade satellite detection and the reduced number of inspectors available (Human Rights Watch 2019). However, women face challenges in participating in decision-making and politics, although their actions and initiatives are crucial in advancing the rights of IPLCs. A young Xavante woman who works in the field of political rights for Indigenous people, Samantha Ro'otsitsina de C. Juruna, spoke to the UN about the need for indigenous women's role in participation in the policy process to be recognized and strengthened. This is partially due to cultural resistance to women's involvement in decision-making process (UN Women 2014).

The pathways for participation in Indigenous groups and local communities is high with need for improvement in ensuring all sectors of IPLCs (including women) have a voice.

#### 1.4.2 Capacity for Enforcement

In many instances, indigenous people and local communities have stepped in and taken control of enforcement. In some ways they are in the best position to protect the Amazon. They

use the Amazon for subsistence resulting in the desire to protect the forest from exploitation of common resources. They are also located and live on the land meaning they can react more quickly than other enforcement agencies. But they also risk their lives in doing so (Human Rights Watch 2019).

Loggers and others committing forest crimes are now able to avoid satellite detection and the number of IBAMA inspectors has decreased further making a case for the importance of indigenous and local people to report forest crimes. In fact, in demarcated indigenous territories “only three percent of all deforestation recorded from August 2017 to July 2018 in Brazil’s Amazon region occurred in Indigenous territories, even though those territories comprise 23 percent of the area” (Human Rights Watch 2019).

These enforcement efforts use patrols of indigenous people termed Forest Guardians in different regions of the Amazon. They identify sites where illegal forest crimes occur and provide authorities with the names of the offenders and at times leading police to sites. In the Alto Turiaçu, Araribóia, Caru, and Governador Indigenous territories the guardians patrol in groups of up to 15, in vehicles, boats, and on foot (Human Rights Watch 2019). These groups face harsh conditions and scarce resources. They often sleep in the forest for weeks at a time as they lack the money for gas and equipment in addition to the challenge of providing for their families and risking the threat of reprisal (Human Rights Watch 2019).

Capacity for enforcement is high in Indigenous groups and local communities. This is shown by many studies including a 2016 study conducted by WRI that found deforestation on land held by Indigenous people was 250% lower than comparable areas in the Brazilian Amazon (Human Rights Watch 2019). If the state decides that enforcement efforts can, in part, be delegated to IPLCs, then more resources must be provided.



### 1.4.3 Accountability

As the state fails to protect forests, Indigenous communities step in. Members of Indigenous communities tend to be among the most active in supporting enforcement efforts aimed at curbing deforestation, according to federal authorities. Indigenous peoples and local communities often play a crucial role in holding other actors accountable for their actions regarding environmental and social issues. They can do this by providing government authorities with tips about illegal activities, such as illegal logging or mining. They also monitor their territories and report any violations to authorities or advocacy organizations.

This dynamic is seen in the example in Maranhão state, in which due to the decreasing capacity of government agencies to enforce environmental laws, members of four Indigenous communities have taken matters into their own hands by organizing as "forest guardians". These guardians patrol their territories and report any illegal logging activities they encounter to authorities. While their efforts have led to some successful enforcement operations, they have also faced threats, attacks, and even death at the hands of loggers. This situation is not unique to these four communities and is a result of the reduced capacity of environmental agencies, which places greater pressure on Indigenous peoples to defend their forests. With the use of tactics by loggers to avoid satellite detection and a decrease in the number of inspectors, it is simply impossible for government agencies to control all the territory. This has made the role of Indigenous peoples and local communities even more crucial in holding other actors accountable for illegal logging activities (Human Rights Watch 2019).

IPLCs provide on the ground support to report illegal activity whether on the part of agribusiness, state actors or other locals. The informal forest governance they provide gives them high marks for accountability.

#### 1.4.4 Transparency

IPLCs help to ensure transparency with other actors as well. Beto Marubo, is an important Indigenous leader in Brazil and coordinating member of the Union of Indigenous Peoples of the Javari Valley (UNIVAJA). Marubo stated that after Bolsonaro severely weakened FUNAI “... the absence of the Brazilian government in the Amazon,” caused “Organized crime [to take] over this void left by the state.” (Langlois 2022).

Marubo wanted a technical means to quantify information as a means of providing detailed information about events and increasing transparency. As a result, the UNIVAJA surveillance team was created, consisting of Indigenous individuals from villages, while lacking technical knowledge, possessed a wealth of real-world experience. An advocate for IPLCs, Bruno Pereira, helped to train a team in using technology like cellphones and drones to monitor their territory and capture images. This was necessary due to the weakening of FUNAI and increasing invasions on rural territory, which posed risks to the uncontacted Indigenous peoples in the Javari Valley (Langlois 2022).

This example is commonplace within Brazil. The transparency provided by IPLCS that holds government agencies and others accountable is ranked as being high in Brazil.

## Discussion

Table 1: Actors in Brazilian Forest Governance rated by PEAT criteria.

Actor	Evaluation
<b>State</b>	<p><i>Participation. High*</i>: Participation provided for IPLCs in national and regional councils, but councils have been undermined with no indication of them being restored</p> <p><i>Enforcement. Low*</i>: State has checks and balances in place between different government agencies, but are insufficient given the size and number of problems</p> <p><i>Accountability. Low</i>: Monitoring practices are left to regional authorities who lack the institutional mechanisms to hold themselves and violators accountable.</p> <p><i>Transparency. Low*</i>: State at times withholds information on monitoring and permitting and put policies into place that favor agribusiness.</p>
<b>NGOs</b>	<p><i>Participation. High</i>: NGOs in Brazil are integral in collecting and disseminating information to larger entities</p> <p><i>Enforcement. High*</i>: NGOs like CPT and CIMI provide the human capital to protect against forest crimes, yet funding especially from international sources is scarce</p> <p><i>Accountability. High*</i>: Most NGOs have accountability built into frameworks as well as provide support in holding other actors accountable</p> <p><i>Transparency. High</i>: NGOs report on each other's actions such as the case of Mongabay and REDD+ projects</p>
<b>Agribusiness</b>	<p><i>Participation. Low*</i>: Agribusinesses are unable to implement monitoring systems and redress grievances on all levels.</p> <p><i>Enforcement. Low*</i>: Agribusinesses have not invested the time or resources to enforce their agreements that work to prevent deforestation</p> <p><i>Accountability. Low*</i>: These companies do not hold themselves to their company policies even though resources are available to be invested</p> <p><i>Transparency. Low*</i>: Large banks continue to invest in companies that contribute to deforestation despite policy vowing to cease this practice.</p>
<b>IPLCs</b>	<p><i>Participation. High*</i>: IPLCs have overcome the collective action problem and organized themselves well, but still struggle to include all voices in the process particularly women</p> <p><i>Enforcement. High*</i>: IPLCs are successful in taking up enforcement efforts no matter the resources available and are in a good position to do so</p> <p><i>Accountability. High</i>: IPLCs provide on the ground support to report illegal activity</p> <p><i>Transparency. High</i>: IPLCs call out government agencies and offenders</p>

\*Indicates there is room for improvement

The Brazil case study and rating table provides useful information on the major players and their relative impact on forest governance and their contribution to countering the effects of deforestation. As evidenced by the case study and table, the forest governance system in Brazil is an imperfect version of Ostrom's theory of collective management. Brazil's approach to forest governance is a blend of state control, community-based management, and private sector input, with varying degrees of involvement and different levels of success.

The most significant findings include:

- IPLCs are a critical component to forest governance. They have the most “skin in the game” and when integrated into policy formulation, lend legitimacy at the local, state, federal and international level that belies their limited resources.
- The state has built institutions over the last twenty years to combat rampant deforestation. While not perfect they have contributed to a dramatic decrease in deforestation when enforced as evidenced from the 2005- 2012 drop in deforestation mentioned in section 1.
- Agribusiness are cognizant that they are under scrutiny, but more accountability and enforcement measures must be taken to ensure decreased resource depletion.
- The catastrophe wrought by the Bolsonaro regime will take years to undo. Fortunately, the institutional framework remains and NGOs and IPLCs remain significant actors.
- NGOs have been successful in holding the government accountable, monitoring compliance by agribusiness, identifying and publicizing illegal activity.

The outside impact of Indigenous people's contribution to decreasing resource depletion is significant because it means that in select instances indigenous people have contributed their voice to collective action. Their participation is driven by economic and near existential factors. Brazilian IPLCs that reside near threatened forests are frequently in a state of conflict. As mentioned in section 1.2.3, from 2011 to 2021, there were 10,293 land conflicts over possession of rural territories and in 2021 alone 176 Indigenous people were murdered across Brazil (Climate Counsel 2022). In cases of conflict, such as the case of IPLCs in Brazil, the free rider phenomenon clearly does not apply (Kalyvas and Kocher 2007). Research shows that within conflicts the cost of being a free rider (inaction) far exceeds the cost of participation in fighting deforestation (Kalyvas and Kocher 2007). Most Indigenous people's livelihoods in Brazil are inextricably linked to forest resources. Inaction is not an option. Yet the challenge is daunting when facing the power, resources and organization of agribusiness that benefit from resources without enduring the cost.

Referencing Ostrom, agribusinesses benefit more from not cooperating with Indigenous people than from cooperating. This coupled with the lack of pathways to meaningful participation for Indigenous people in Brazil creates an unstable environment that incentivizes indigenous groups to find their own path to participation (Carvalho, Souza, and Dias 2016). Intense scrutiny has proven to be effective in some cases to allow for changes to be made, but more pressure must be applied to see real change in resource depletion of forests.

Similarly, other actors struggle with collective action seeking the motivation and means to effectively cooperate with one another. Each actor in Brazil wants different things: state actors

to balance economic development (cooperation with agribusiness) and the long-range benefits of environmental preservation, agribusiness whose primary motivation is profit, and NGOs to hold all accountable to preservation of the environment. The size and benefits to pursuing economic incentives in the use of forest resources at times overcomes any desire for collective action. The power of agribusiness creates costs that some actors will at times find insurmountable. In the case of Brazil many actors find the cost of going against agribusiness too great to the detriment of forest resources and their governance.

While there is a rather robust framework for preventing forest resource depletion Brazil struggles to enforce the rules in place and is subject to the ideology and goals that vary between administrations. Bolsonaro's active pursuit of economic growth to the detriment of forest resources negatively impacted governance and accelerated deforestation with his undermining of FUNAI and National Councils. And Lula, despite his seemingly more pro-environment and indigenous people stance has a mixed track record with the example of the Belo Monte dam mentioned in 1.1.3 being a notable example. Lula and his administration should be closely monitored to ensure they are adhering to environmental preservation.

NGOs in Brazil make meaningful contributions to enforcement, accountability, and transparency of all actors. More localized NGOs provide information that is helpful to understanding community dynamics. Yet within NGOs UN programs like REDD+ struggle greatly. REDD+ projects in Brazil may lack the funding capabilities to execute their proposed functions. Funding for REDD+ projects need to be provided with fewer conditions to facilitate startup, instead of looking for results as the prerequisite for funding.

One finding that was in line with previous assumptions are the rankings of agribusiness. Agribusinesses have few meaningful programs for stakeholders, specifically IPLCs, to voice or address grievances. This has and will continue to result in conflict for what some perceive as a zero-sum game and acceleration of resource depletion.

## 2. Case Study: Indonesia

Similar to Brazil, Indonesia has a great amount of biological, ecological, and socio-cultural diversity. In Indonesia, forests make up nearly half the land area in 2020 (World Bank 2020). An estimated 40 million Indonesians living in rural areas rely on biodiversity within the forests for subsistence. The archipelago of Indonesia is made up of roughly 17,000 islands, 990 of which are continuously populated. In Indonesia, there are 7 main biogeographic regions, which are centered on the largest islands and the seas surrounding them (UN Convention on Biological Diversity 2023).

The main driver of environmental degradation in Indonesian forests stems from the production of palm oil. Indonesia is a good case study when examining the tension between the economically driven consumption of environmentally essential forests and their preservation for the good of the environment and well-being of species, including humans. Palm oil is a vital commodity in Indonesia both for its use in food domestically and for export and industrial use as biodiesel and biofuel. It is a key ingredient in snack foods, cosmetics, and cleaning products. The palm oil industry clears Indonesian forests for oil palm, pulp wood, logging, and mining, releasing large amounts of carbon dioxide. There have been numerous ensuing disputes over land use and ownership caused by oil palm plantations. Indigenous people who live in and around the

forests are parties to many of these disputes. Indigenous people make up between 50 and 70 million of Indonesia's population, or about 25 percent. These conflicts have persisted over time, made worse by a combination of inadequate protection of Indigenous peoples' land rights and intricate land governance systems that are unable to stop or settle conflicts (Nnoko-Mewanu 2019).

In 2014, Indonesia elected current president, Joko Widodo, to office. His political campaign centered around a few key promises including a pledge to end corruption, restructure the government, improve infrastructure, encourage investment, spur economic growth, and end historical human rights abuses. Early in his presidency (2015), Indonesia made headlines for extensive burning of the forest and peatland that emitted large amounts of CO<sub>2</sub> and cost the country roughly 16 billion USD in economic and health impacts according to the World Bank (Jacobson 2016). Dubbed the 2015 Southeast Asian Haze, it created an air pollution crisis in not only Indonesia but across several countries in Southeast Asia. The cause is the decades-long practice of draining and drying of Indonesia's peat swamp zones, an issue that has been accelerated by the increase in palm oil production and creation of timber plantations (Jacobson 2016).

Across administrations and spanning several decades there has been a long-held practice of resource depletion within Indonesia. Due to the size of the country and number of actors there must be a more coordinated effort to establish a framework of governance which can ultimately be used to prevent resource depletion of forests.



## 2.1 State Actors

By law, the Indonesian government has many responsibilities to its citizens with respect to good forest governance. Article 28 H (1) of Indonesia's Constitution states that "Everyone has the right ... to enjoy a good and healthy environment" (Boyd 2020). This right is also established in Article 9 (3) of Law No. 39 of 1999 and Article 65 of Law No. 32 of 2009. Indonesia participates in international agreements that affirm these rights. The Association of Southeast Asian Nations' Human Rights Declaration, which affirms the right of every individual to a safe, clean, and sustainable environment under Article 28f. The Indonesian Constitution also states that forests "shall be used to the greatest benefit of the people" (Government of Indonesia 1945).

In Indonesia's more decentralized form of government, services are implemented at a more local level, yet the management of forests occurs mostly at the national level. The state government of Indonesia owns most natural resources including forests.

A few main agencies are key in the state's role of forest governance including: the Ministry of Environment and Forestry, the Ministry of Agrarian and Spatial Planning (ATR), and the Ministry of Trade. The Ministry of Environment and Forestry manages and monitors Indonesia's forests and ensures that sustainable practices are in place. This agency helps to develop legislation on forest resources and works to increase environmentalism through national awareness, education, and outreach. The ATR organizes government affairs related to agrarian and spatial planning. The Ministry of Trade regulates the exportation of a variety of forest products.

Starting in 1999 with the introduction of Indonesia's Forestry Law, forests that had great cultural significance to certain people in Indonesia were classed as "State Forest Areas". This allowed government agencies to grant forest concessions to industry with no regard for the local

people who had maintained them for decades. In 2013, Indonesia's Constitutional Court ruled that this was unconstitutional, strengthening local peoples' claim to the land (Butler 2013).

The introduction of the 1999 Forestry Law and 2014 Plantation Law also established requirements that permit holders (agribusinesses companies) compensate the local community for the loss of access to land. This may be done with the establishment of a community plantation, plasma (small plots of land), or some type of business opportunities for locals (Nnoko-Mewanu 2019). While the program has had some success, dominant models in place see farmers playing no active role in the plasma estates and being misled by companies about compensation.

Giving land to small landholders is not a new idea in Indonesia. One of the most influential programs sponsored by the Indonesian government to promote economic development was a voluntary migration program started in 1987. The program's objective was to move people from densely populated or degraded areas on Java and other islands to outer islands that can support agriculture such as Kalimantan, Papua, Sulawesi, Maluku, and Sumatra (Whitten 1987). This practice of moving people has colonial origins: the Dutch colonial government moved millions of people to reduce poverty, prevent overpopulation, and provide a workforce to utilize the natural resources on the outer islands of Indonesia. This practice has been widely criticized as migrants were contracted by wealthy estates to work the land under harsh conditions (Mongabay, The Gecko Project, and BBC News 2022).

Different iterations of the program continued sporadically after Indonesia gained its independence from the Netherlands in 1949. A notable change in the 1980s saw the program operate under the notion that smallholder farmers would grow oil palm and companies would establish plantations saving 20- 30% of the land for themselves and giving smaller "plasma"

plots to indigenous communities and migrants. This voluntary program, while in theory should help eradicate poverty and promote economic growth, has had many problems with small holders returning home after poor production conditions and costs put them into debt. The 1999 Forestry Law and 2014 Plantation Law allows for the plasma initiative to continue today. Private entities manage the initiative as regulated by the government. These many laws facilitating state control merit a “high” ranking on our index.

### 2.1.1 Participation

There are different pathways to participation in Indonesia. In recent years, lawmakers have attempted to reincorporate Adat laws into formal policy decisions to achieve better balance in governing forests after their exclusion from the governing process under the 1999 Forestry Law. Adat means “custom” in Indonesia and Adat law refers to traditional laws and customs of Indigenous communities in Indonesia that are passed down from one generation to another. This arrangement is recognized by law, and the Indonesian constitution acknowledges the rights of Indigenous communities to control and manage these forests. However, customary forests face threats from deforestation and land conversion. In recent years, efforts have been made to strengthen recognition and protection of customary forests through community forestry programs and legal frameworks supporting community-based forest management.

In May of 2013, Indigenous people had a landmark judgment in the Constitutional Court of Indonesia that gave them rights to customary forests. Prior to this decision all forests were legally thought to be a part of state-owned forests which only allowed Indigenous communities limited use rights. The court decision stops authorities from granting permits for land-based

investments on Adat forest without also considering the rights of the Indigenous people who reside there and in its environs. However, six years after the judgment was made, the United Nations and other experts have discovered little evidence of the verdict's implementation (Nnoko-Mewanu 2019).

Laws and policies have been put into place to better address negative environmental impacts in forests. For example, in 2009, the government passed Law No. 32 on Environmental Protection and Management (2009 Environmental Law). The Environmental Law lays out the legal framework for organizations and people to manage significant environmental impacts brought on by their operations or other activities (Utomo et al. 2022). Unfortunately, deregulation of the law occurred in 2020. Law No. 11 of 2020 on Job Creation (Omnibus Law) amended the Environmental Law. The Omnibus amendment introduced a more corporate friendly approach to regulations in a government effort to increase investment and boost Indonesia's economy. The Law included several sections that weakened environmental regulations and labor laws. On 3 November 2021, the Supreme Court issued a decision for the House of Representatives to revise the Omnibus Law as it violates certain aspects of constitutional protections for citizens. One of the criticisms of the Law is that it would limit the ability of the public to give input to projects that may cause environmental harm. The Law would eliminate the AMDAL commission, which is responsible for conducting environmental impact assessments. Under the new Omnibus law, assessment teams consisting of officials from the central and provincial governments, as well as certified experts, will now carry out AMDAL reviews instead of members of the public. The Law also eliminates the public's right to file objections against AMDAL assessments once approved. These actions limit the ability for affected communities to be represented (Jong 2020b).

The Omnibus Law is one of the many ways that recent Presidential administrations attempt to stimulate economic growth in Indonesia. For example, under President Susilo Bambang Yudhoyono's (SBY) administration, the government created the Masterplan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI). This program aims to stimulate economic growth focusing specifically on rural population poverty reduction. Later, the government transitioned to the Nawacita Plan (nine ideals plan) as set out by President Jokowi, which works under the same principles as the MP3EI plan. Under the Nawacita Plan, the country has seen rapid government expansion of oil palm and pulp plantations. This development of the land puts de jure rights at odds with de facto rights as most of the land being used by agricultural companies is claimed as traditional territories by local communities (Human Rights Watch 2013).

Another example of economic growth at odds with environmental and social concerns is the plasma program. While the program has had some success in promoting economic growth for smallholders, the dominant models in place see farmers playing no active role in the plasma estates and being misled by companies about compensation. In addition to this, programs like this operate under the assumption that large corporations have the knowledge and capital to manage plantations better than villagers, yet the result has been resource depletion and the exclusion of locals from the land and decision-making process.

Indonesia has little to no formal councils or forums that allow for the participation of non-state actors in Indonesia. This is due to sectoral ego ("ego sektoral" in Bahasa Indonesia), which assigns oversight to an institution that considers itself the most credible to produce policies and regulations. The result is that government agencies prioritize their own interests and needs while not collaborating with non-state stakeholder programs. Additionally, the size and

significant distance between islands and the mainland makes it difficult to collect information. To compensate, many different NGOs have attempted to take up this effort (CIFOR 2019).

Regional governments at times take on this role. For example, the former governor of East Kalimantan's, Awang Faroosk Ishak, established the Provincial Council on Climate Change (DDPI), in 2011 to coordinate programs under East Kalimantan's Green Initiative Program (Kaltim Hijau). The program was created as a multi stakeholder forum (MSF) funded by NGOs in East Kalimantan and is led by reputable academics. The aim is to formulate emissions reduction strategies, coordinate adaptation and mitigation programs, design carbon market strategies, implement an MRV system for climate change projects, and ensure the adoption of green development strategies by all district governments in East Kalimantan. Overall, the MSF is perceived as effective by the majority of its participants and seen as enhancing coordination amongst different stakeholders. Additionally, the program is capable of influencing regulations and policies concerning sustainable land and resource use in the region. However, the effectiveness of the MSF is challenged by its restricted mandate, ad-hoc nature, and financial dependency on NGOs. Still, this is seen as a successful program by Center for International Forestry Research (CIFOR) that can be used for the proliferation of additional programs (CIFOR 2019).

Indonesia's government has less formal and informal pathways for IPLCs to participate than Brazil. All the factors above combined illustrate that Indonesia's state actors have some pathways for participation, but better policies must be put into place to allow for redressing grievances and to balance out economic interests with social and environmental concerns. For this reason, participation is ranked low with room for improvement on the index.

## 2.1.2 Capacity for Enforcement

Indonesia has several policy mechanisms in place that, in theory, protects forests. Yet, in practice this does not necessarily translate to results. It is estimated that 40% of deforestation in Indonesia occurs in forest classification types that restrict or prohibit land clearing (Margono et al. 2014). This calls into question the capacity for Indonesia to enforce its forest protection laws that protect forests. For instance, a Human Rights Watch report detailed the lack of enforcement and lost revenues from the government. For example, the government conducted an Anti-Corruption Commission (Komisi Pemberantasan Korupsi, KPK) study in 2010 that found that there was a \$1.8 billion revenue loss from mining permits granted to industry in the four Kalimantan provinces. The KPK expressed that there was little accountability for these types of violations (Human Rights Watch 2013).

Similarly, the Indonesian government lost an estimated \$1.8 billion in 2006 from uncollected forestry fees. This was the result of illegal logging and mismanagement in the forestry sector, specifically improper permitting and artificial low market prices used by the government to calculate royalties and uncollected fees (Human Rights Watch 2013). Comparable losses were found in the years following 2006 with losses reaching an estimated \$2 billion in 2011. Furthermore, from 2006 to 2013, Human Rights Watch estimates that state losses from the forestry sector total more than \$7 billion (Human Rights Watch 2013). Again in 2011, the Ministry of Forestry in Indonesia only collected 62% of the PSDH/DR fees. All of these estimated losses do not include the lost royalties from timber smuggled out of the country, timber sold illegally by small sawmills, and exports that were intentionally under-valued so that tax was avoided (Human Rights Watch 2013). These losses combined have significant impacts domestically, especially on poor rural populations. Indonesia is a party to the International

Covenant on Economic, Social and Cultural Rights which states it will spend all available money so that citizens enjoy rights to services such as health, education, and housing. Indonesia is violating its obligation to the agreement by losing \$2 billion in revenue annually. This is equal to the country's spending on health services. The World Bank estimates that this \$2 billion could provide basic healthcare to 100 million of the poorest citizens for 2 years (Human Rights Watch 2019). Furthermore, this loss of funding could be used in poverty alleviation to prevent deforestation or fund enforcement efforts. This failure to collect forest fees challenges the ability for the government to enforce one of its most basic functions.

In some cases, residents fought back by reoccupying land that they have given to plantations and planted it with their own palm trees. In one instance in April 2011, employees of oil palm company PT Sumber Wangi Alam near Sodong in the Mesuji sub district of South Sumatra clashed with residents. Local police arrested these locals while ignoring companies continuing to plant on the land even after local officials placed a moratorium on the land. Violence erupted between residents and security leading to loss of life. No persecutions resulted from the violence because they could not identify suspects and witnesses refused to testify, calling into question the government's ability to collect information and act on it (Human Rights Watch 2013).

Capacity of enforcement is low on our index with significant room for improvement due to the inability to collect revenues, a lax permitting process, and violent crime that diverts resources elsewhere.



### 2.1.3 Accountability

The Indonesian government has much work to do in terms of accountability. For example, in 2015, significant legal and policy developments occurred that aimed to recognize the rights of Indigenous peoples. The Ministry of Environment and Forestry required local governments within Indonesia to demarcate and safeguard customary forests. In its National Medium-Term Development Plan for 2015-2019, the government set a goal to map out and establish community forests on more than five million hectares of customary forest.

Despite this ambitious plan, to date the government has done little to identify and safeguard the customary forests of Indigenous people. President Jokowi gave eighteen, Indigenous communities 29,500 hectares of customary forest in 2016 and 2017, which is far less than the amount promised in the nation's 2015 development plan. Official data show that as of April 1, 2019, Indonesia established 49 customary forests within its agrarian reform plan, totaling about 32,791 hectares. In 2018, in response to the 2015 Southeast Asian Haze event and to stop further deforestation and safeguard the environment, Jokowi announced a three-year moratorium on new oil palm plantation permits. Environmentalists and activists applauded the decision, but worried about the consequences of the moratorium expiring. After the expiration of the moratorium the government has been unclear about official policies preventing further permits with Ruandha Agung Sugardiman, a senior official at Indonesia's Environment and Forestry Ministry, stating that "Even without (the moratorium), the policy laid down by the environment and forestry minister is to continue the ban on new permits for forest clearance for palm oil plantations" (Reuters 2021). With no formal policy in place activists have worried that companies will continue to be given concessions and that land given out in previously permitted concessions will continue to be abused with little to no interference from the government.

In addition to this, community members have accused government officials in the past of bypassing important processes such as consultation during land suitability surveys or environmental impact assessments when issuing authorizations for plantation permits. These authorization processes are now being done concurrently on a new online single submission process. However, local experts say that social impact assessments are often just a formality with little community participation. In two oil palm plantations investigated by Human Rights Watch, community members discovered the investment plans only after the company had obtained its permits from local authorities (Nnoko-Mewanu 2019). This called into question the dependability of the government to hold themselves to their policies.

Still there are independent mechanisms within the government that help keep it accountable. For example, a 2019 report by Indonesia's Supreme Audit Agency (BPK) showed that the government was lacking in its oversight of plasma. The report found that the Ministry of Environment & Forestry and the Ministry of Agriculture had failed to properly monitor the compliance of companies. Instead monitoring was left to regional authorities, and through the self-reporting of companies which BPK stated opened up possible "widespread illegal management" of plantations (Mongabay, The Gecko Project, and BBC News 2022).

The government on a national and regional level has low accountability. This is due to a lack of institutional mechanisms and enforcement mechanisms in place. Regional authorities lack the institutional mechanisms to hold themselves and violators accountable.

#### 2.1.4 Transparency

The Indonesian government is seriously lacking in transparency within their governance process. There is no clear tracking process within agencies tasked with tracking data related to forests. In the cases of conflicts there is no clean-cut method of tracking the number of land conflicts, their status, or their resolution. In other cases, government agencies refuse to give information related to forestry. In one case, the Ministry of Agrarian and Spatial Planning refused to give access to plantation permit data, claiming that a paywall prevented the sharing of information. The agency continued with this excuse even after the Supreme Court upheld a freedom of information request for the data (Nnoko-Mewanu 2019).

In another instance, the country's national palm oil certification process called the Indonesian Sustainable Palm Oil (ISPO) which certifies oil palm plantations that adhere to Indonesian local laws and social responsibility principles, lacks clear guidelines regarding the conduct of audits, monitoring, information disclosure, complaints and dispute resolution (Jong 2020a). While the certification process intends to improve sustainability, support pledges to reduce greenhouse gas emissions, and increase the competitiveness of Indonesian palm oil on the international market, the ambiguous language of the guiding principles of the system leave much to interpretation. The ISPO system also has no goals for transparency as part of its certification process making it less effective (Nnoko-Mewanu 2019).

In 2013, the government took a more militarized approach to dealing with the risk of potential conflict. The passing of laws such as the Social Conflict Resolution Law allows for district heads and mayors to declare states of emergency and the deployment of armed forces to quell conflict. This violates the national laws surrounding the regulation of police and the military. A presidential decree issued on January 28, 2013, allows local officials to call for the

military without having to seek approval from the president, parliament, or national police. Another Memorandum of Understanding authorizes an agreement between the Ministry of Forestry and the armed forces that allows for direct funding from the Ministry of Forestry to go to the armed forces for “forest protection” operations. This could potentially facilitate more violence between state and local actors and reduce the role of transparency in the enforcement process (Human Rights Watch 2013).

State actors are only as transparent as senior decision-makers allow them to be.

## 2.2 NGOs

In Indonesia, there are a wide variety of organizations and programs that engage in forest governance. REDD+ is a large donor in Indonesia. REDD+ facilitates the largest organized efforts to fight deforestation in Indonesia and uses components of good governance to evaluate projects. REDD+ has about 40 different projects in Indonesia in collaboration with NGOs that they fund from the common pool of money. In addition to NGOs partnerships with REDD+ projects there are many different environmental and human rights NGOs that work to ensure accountability and transparency in Indonesia such as Mongabay, Human Rights Watch, etc.

Throughout the years the role of NGOs has changed dramatically. In Indonesia, there are two types of legal entities for non-profit organizations: “yayasan” and “perkumpulan”. Yayasan is a non-membership organization. The purpose of yayasan usually involves a social, religious, educational, or humanitarian cause. However, the Dutch Colonial government established yayasan and allowed it to be used for profit or money laundering purposes. To promote transparency and accountability in yayasan governance, the Indonesian government ratified Law 16/2001, which obligates yayasan to issue annual programs and financial reports. Yayasan must

also publish financial reports in an Indonesian language newspaper if receiving funding of Rp 500 million (33,500 USD) or more or having assets of more than Rp 20 billion (1.3 million USD) and is subject to audits by a public accountant. The other non-profit entity, *perkumpulan* is established on the basis of memberships and serves the interests of its members or the public, with the legal entity obtained through approval from the Minister of Justice (Antlöv, Ibrahim, and Tuijl 2005).

### 2.2.1 Participation

Each organization that participates in Indonesia has varying goals and methods of operating. There are many different REDD+ projects within Indonesia. Rimba Raya is a large Ecosystem Restoration Concessions (ERCs) project. ERCs are agreements between governments and private companies, organizations, or individuals that work to restore and conserve degraded ecosystems in exchange for the right to use or extract natural resources from the area. The purpose of ERCs is that a public-private partnership can incentivize the restoration and conservation of ecosystems while also supporting sustainable development. The criticism of this is that it allows larger interests to take hold. CIFOR conducted interviews from villages in Central Kalimantan, where the project operates and found that many villagers were satisfied with the pathways for representation in the village decision making process. Women were interviewed by CIFOR and felt they had sufficient representation (Indriatmoko et al. 2014). The village government remains the main decision-making institution at the village level.

One of the challenges in the Rimba Raya project was that the Community Activity Agreement (CAA) submitted to the government overlapped with planned oil palm concessions owned by four companies. Hence, Rimba Raya's ERC's request highlighted that the Ministry of

Forestry's (MoFor) authority to manage state forest lands and the district head's actions of issuing oil palm permits over the same area are at times at odds with each other. In the end MoFor only granted an ERC license that partially covered the CAA which was a serious blow to Rimba Raya. This demonstrates times in which NGOs efforts to protect and restore the forest are not fully recognized or supported by the government, which in the end may limit the positive impacts of these projects (Indriatmoko et al. 2014). Additionally, there was resistance to the Rimba Raya initiative in one study village. In this village people were more supportive of oil palm plantations. In this dynamic, oil palm plantations saw Rimba Raya as a threat to their operations. People could not see clear benefits that the program offers to their village. People in two study villages also mentioned that there was very little time for villagers to ask questions of Rimba Raya staff, this is because the Rimba Raya staff spent only one to two days in each village to introduce the forest restriction plans (Indriatmoko et al. 2014). In this case Rimba Raya may lack the participatory measures needed to help people get on board for the project. It also may be that individuals do not want the project in place in general and instead see more direct benefits from engaging with the companies.

Another organization (not a REDD+ project) heavily involved is Aliansi Masyarakat Adat Nusantara (Indigenous Peoples Alliance of the Archipelago) (AMAN). AMAN is an Indonesian non-governmental organization (NGO) established in 1999 to promote and protect the rights of indigenous peoples in Indonesia. AMAN's primary mission is to empower Indigenous communities and advocate for their rights, including their right to land, natural resources, cultural heritage, and self-determination. The organization works to raise awareness about the issues facing Indigenous peoples in Indonesia, and to mobilize public support for their cause.

AMAN has played a key role in advocating for the recognition and protection of the rights of Indigenous peoples in Indonesia and been instrumental in pushing for the passage of supportive laws. The Third Congress, KMAN III (2007), suggested that Indigenous peoples should influence the drafting of the Village Law and recommended the formation of a Commission on Indigenous Peoples. AMAN strengthened these suggestions in their 2009 Working Group meeting, advocating for a comprehensive umbrella law for Indigenous peoples. AMAN conducted research and public consultations in seven regions in 2010 to prepare a research paper and draft law on Indigenous rights. The Draft Law on the Recognition and Protection of the Rights of Indigenous Peoples (RUU PPHMHA) was finally passed by the Indonesian parliament in 2019 with the instrumental role of AMAN. Additionally, AMAN engages in various activities aimed at promoting the well-being of indigenous communities such as providing legal assistance, supporting community-led development initiatives, and promoting sustainable resource management practices. Overall, AMAN and similar programs facilitate good governance by filling the information gaps required (Jong 2023).

The participation of NGOs in Indonesian forest governance is high with room for improvement. This specifically refers to REDD+ projects as administrators lack the understanding of community dynamics needed to create and sustain projects. In general, NGOs provide and support information pathways that can be used by other actors to better understand community dynamics.

### 2.2.2 Capacity for Enforcement

Depending on the scale of operations NGOs tend to have significant impacts on the level of the capacity of enforcement for forest governance. Still, a large hurdle that NGOs must

overcome is ensuring that there are enough resources, particularly funding, to carry out its operations. One of the problems that many NGOs and especially REDD+ projects face is funding which, in part, comes from REDD+ donors and others from external sources. The establishment of a baseline for emissions reduction and forest cover is necessary to monitor a project's progress and calculate carbon credits that can be sold on the carbon market. However, the lack of a robust carbon market and limited availability of other funding sources has made it difficult for REDD+ projects to access funding. Norway has promised funds for countries involved in REDD+, including Indonesia, but the disbursement of those funds is contingent on demonstrable results. It is unclear how much funding is available for REDD+ projects, and many projects lack the basic funds to support on-the-ground efforts. The perceived projections of available funding may have also undermined REDD+ effectiveness by overselling ideas about available funding and encouraging some projects to be initiated without a solid plan for obtaining financing (Enrici and Hubacek 2018). Lack of resources and funding severely limits the activities and contributions of NGOs.

In the instance that NGOs do have the proper amount of funding in place to support its operations other actors can benefit from its unique position. Most NGOs have only a few goals to target compared to state actors and can help with providing valuable information to the government. In a recent development, AMAN provided the director-general for social forests in the Ministry of Environment and Forestry with 604 customary land maps, covering a vast area of 6.8 million hectares (17 million acres). This demonstrates AMAN's capability to assist in enforcing the recognition and protection of indigenous peoples' rights and suggests a positive collaboration between the organization and the ministry. However, Indonesia's One Map Initiative, launched in 2014 by the government run National Data Spatial Infrastructure, only



covered a limited portion of indigenous lands, estimated at 4.8 million hectares (12 million acres), the maps failed to include some of the maps AMAN provided, leaving a significant gap in the representation of indigenous peoples' rights (Chandran 2021). Therefore, NGOs efforts are only as effective as the government allows. In this case it is crucial to include more maps of customary lands and state forests to create a comprehensive map or database that accurately reflects the indigenous peoples' rights accurately (Lee and Veit 2015).

The UN REDD+ organization itself planned to open offices in the city of Jambi to better provide support to REDD+ projects, but as of 2015 decided to merge with the Ministry of the Forestry and the Environment (Jong 2015). BP REDD+ head Heru Prasetyo was concerned about this move as it would limit the independent oversight that REDD+ brings to the Indonesian government (Jong 2015). This could limit the capacity for REDD+ projects to function properly in Indonesia as it may elevate a few powerful actors' interests first above the priority of understanding nuances within different sectors of society that enable REDD+ projects to reduce resource depletion.

Another NGO that expands the information and capacity of the government is Konsorsium Pembaruan Agraria (Consortium for Agrarian Reform, KPA) which is a large NGO that does work in Indonesia and collects data on land-related conflicts. KPA focuses its efforts on land reform issues, specifically land rights, agrarian conflicts, and natural resource management. The organization works to improve land access to land for local marginalized and vulnerable communities. They also collect data and conduct research on land-related conflicts and advocate for policy and legal reforms to address land inequality and injustices. In 2017, KPA was able to document over 650 land-related conflicts affecting around 650,000 households (Nnoko-Mewanu

2019). This is just another example of NGOs helping to fill information gaps that can ultimately help to enforce good forest practices.

Capacity for enforcement for NGOs is high and has room for improvement. This is due to the lack of resources available in Indonesia from international sources for NGO projects. Smaller NGOs collect information and maintain relationships with local actors to anticipate their needs.

### 2.2.3 Accountability

NGOs may struggle to hold themselves accountable and state actors within Indonesia may not have the ability to regulate NGOs leading to an accountability problem.

Some local actors are regarded as more legitimate than others in REDD+ projects leading to potential conflicts. In the case of REDD+ projects in Sungai Lamandau, the Dayak Indigenous group, in the interior of Kalimantan, are seen by other groups as well empowered due to their long existing connection to the area. The Malays of Pendulangan and Tanjung Puteri see themselves as unfairly marginalized and lacking participation pathways when compared to the Dayak and transmigrants well-endowed with land. The groups connection with the area date back to some of the earliest transmigration programs by the Dutch government in the 1800s but feel that since they are not truly indigenous to the area, they are excluded from having land rights. One farmer expressed that “My plot is rented. I pay high fees to tap rubber trees on a Dayak family’s land. [...] We are friends, and they are good people, but they are businessmen. [...] The Dayak have business forums and they are friends with AMAN (Indonesian Indigenous People’s Alliance NGO) you know? [...] We’re just honest, but we get nothing.” (Howson 2017). REDD+ has not held itself accountable to understanding the community dynamics of the areas they work in. The groups, Malays and Tanjung Puteri, while some of their land was

purchased in good faith or through the transmigration programs do not have access to the land or to the payment program. This lack of discipline in understanding the dynamics of areas can result in conflict and the continued depletion of forest resources (Howson 2017).

In terms of environmental and human rights NGOs, they may help to inform the public of grievances and violations within a given community that otherwise would go unnoticed. This can be seen through the work of Mongabay, Human Rights Watch, and CIFOR. All of which contribute information to the activities of actors in Indonesia.

An example of a National Indonesian NGO is the Agrarian Reform Consortium (KPA). The KPA consists of various groups fighting for agrarian reform. The organization was established in 1994 and aims to create a just agrarian system, guarantee equitable allocation of agrarian resources, ownership and welfare guarantees for the poor. KPA consists of many smaller organizations. It currently has 173 organizations spread across 11 different regions of Indonesia. Its main activities include fighting for people's rights, advocacy, organizing alternative education, developing information networks, and collaborative activities to fulfill the goals of the Agrarian Reform movement. The KPA's organizational structure is determined through the National Conference mechanism, where the Chairperson of the National Council and Members and the Secretary General are elected. Despite challenges and repression from the government, KPA remains active in criticizing various agrarian policies in Indonesia. For instance, the Indonesian government announced in January 2022, the cancellation of logging, plantation, and mining concessions totaling 3.13 million hectares of land. This presents an opportunity for environmental activists to conserve the lands, larger than Belgium, by redistributing them to local and Indigenous communities and protecting areas still home to rainforest. However, some senior government officials indicate that the concessions should be

reissued to other companies to develop, and lands redistributed to communities will also be open to investors. The revocation of permits is part of government efforts to maximize the use of Indonesia's natural resources for development. Land redistribution is the next step, and the environment ministry's director-general of forest planning says the revoked concessions will be reissued to new investors to cultivate those lands (Jong 2022). This information was brought to attention by the KPA and then reported by Mongabay further proving the mechanisms of NGOs to provide information to engender accountability.

Accountability in NGOs within Indonesia is high with room for improvement. NGOs are more accountable due to internal regulatory mechanisms and stakeholder feedback (to include financial). NGOs provide meaningful information to hold other actors accountable.

#### 2.2.4 Transparency

Transparency is relatively strong in NGOs within Indonesia. Yet, in REDD+ projects they at times fail to have honest and open interactions with local actors. REDD+ projects in general are often criticized for overstating potential carbon offsets and suitability of areas to attract funding. Critics say that this results in projects that do not understand community needs and are a band aid solution to preventing deforestation since they do not address the root problem (Song 2019).

A large REDD+ supported project is the Kalimantan Forests and Climate Partnership (KFCP). The project aimed to reduce greenhouse gas emissions from deforestation and forest degradation in Central Kalimantan province. Its specific activities include assisting with the development of community-based forest management systems which is in line with Ostrom's

approach to governing the commons. The program ended in 2014 after complaints from some in the community including a local NGO, Yayasan Petak Danum. Yayasan Petak Danum stated that KFPC lacked transparency, respect for Indigenous people, made poor choices in project staff, and exhibited a lack of community engagement. CIFOR for its part stated that some of these criticisms were inconsistent with their own, highlighting the importance of creating adequate pathways of communication and outreach to civil society (Atmadja et al. 2014). The lesson from the ending of the project shows that clear communication with all stakeholders is important especially when times are uncertain in the political and social climate surrounding a project (Atmadja et al. 2014).

Other information gathering NGOs make every effort to ensure they have straightforward collection methods. For example, The Gecko Project, a UK based nonprofit, Mongabay, and the BBC, provide accurate and up-to-date information on the actions of the government and agribusinesses on plasma schemes and their interactions and promises to IPLCs. All three organizations partnered in 2023 to report on and create a data set of public reports against companies that detail their failure to provide plasma plots and promised payments (T. Walker 2023).

Transparency is low but has room for improvement. This is especially true with larger NGOs and REDD+ projects in general since REDD+ has a bad reputation among some policy advocates for their tendency to overstate the effectiveness of projects and failure to address the root causes of deforestation.

## 2.3 Agribusiness

Agribusinesses engage in forest governance in Indonesia in numerous ways. One way is through standard resource extraction, investing in carbon crediting, or more long-term operations towards promoting Stakeholder Engagement, Certification and Compliance, and Sustainable Forest Management. The practices of these companies are in theory regulated by the government with permitting and concessions that must be obtained by government agencies.

In Indonesia the process of agribusinesses applying for permits to establish oil palm plantations is obtain a location permit (Izin Lokasi) granted by the governor, or bupati, after examining ownership and any conflicting rights regarding the land. Then before beginning plantation operations, the company conducts an environmental and social impact assessment (Analisis Mengenai Dampak Lingkungan or AMDAL) and obtain a plantation permit (Izin Usaha Perkebunan or IUP) at the district or provincial level, as well as a forest conversion permit from the Ministry of Forestry if the land assigned to the company overlaps with forests (Nnoko-Mewanu 2019).

### 2.3.1 Participation

Agribusinesses participate in lobbying that can benefit the company. For example, agribusinesses, particularly those involved in palm oil production, lobby against the EU regulation on deforestation-free products (Greenpeace 2021). They argue that the regulation is discriminatory and could make their products less competitive in the EU market due to increased administrative and due diligence requirements.

In one case, the officials in both Malaysian and Indonesia as well as the interest group, Council of Palm Oil Producing Countries (CPOPC), spoke out against an EU regulation

announced in 2020. The regulation prohibited the import of “dirty commodities” including palm oil sourced from illegal plantations and deforestation. CPOPC believed the policy would increase the cost of production and reduce competitiveness for palm oil producers. However, green groups and smallholder farmers argued the policy offers an opportunity for palm oil producing countries to demonstrate their commitment to sustainable production, thereby opening the door to new markets. Indonesian President Joko “Jokowi” Widodo also spoke out against the new EU regulation on deforestation-free products during a special EU-ASEAN summit in Brussels on 14 December 2022, expressing concerns that the policy was discriminatory and could hurt the nation’s development and exports due to its inflexible approach. He also stated that Indonesia and Malaysia would work together through the CPOPC to "fight discrimination against palm oil" (Jong 2023). This suggests that there is a coordinated effort by agribusinesses to influence policymakers and protect their economic interests.

There is also a strong lack of participatory measures in many agriculture operations with local people being locked out of the decision-making process and their land as seen with the case of plasma plots (Nnoko-Mewanu 2019). Another example is with Astra Agro Lestari (Astra) which has been accused of doing harm to Indonesia's Indigenous communities. The Orang Rimba community in Sumatra province has been particularly affected by the expansion of a plantation belonging to Astra on what they claim is their ancestral land. However, Jardine Matheson, Astra’s parent company, denied the allegation (Global Witness 2022).

The involvement of businesses in carbon crediting, which is part of REDD+, is also controversial. InfiniteEARTH is a Hong Kong-based project development company that specializes in conservation. The company was created in 2008 and was the driving force behind the Rimba Raya Biodiversity Reserve. The project uses carbon credits and sells them to

investors. The company received 90% of its startup funding from private foreign investors, with the balance from forward credit purchases by Gazprom Marketing and Trading and grants from the Clinton Climate Initiative. InfiniteEARTH established its own VCS methodology with support from Shell Canada Ltd. Allianz and Microsoft have contracted to buy credits from Rimba Raya, a project under InfiniteEARTH, once they are available (Indriatmoko et al. 2014). This is one of the newer ways that large corporations can engage in forest governance even if their industry is not directly related to the industry surrounding forest resources. One concern for these carbon credit projects is the potential negative social and environmental impacts. For example, some carbon crediting helps companies to offset their emissions, which may make companies less inclined to improve their own practices. It also may prevent local communities from accessing customary forests because the land is supposed to be sectioned off and protected from any use. Consequently, carbon crediting must be carefully implemented to circumvent negative consequences from occurring.

Participation is ranked as low with room for significant improvement for agribusiness in Indonesia. Unless compelled, agribusinesses do not consult or give notice to people in areas in which they operate. Agribusiness also may limit access to the forest and its resources or restrict decision-making processes in communities.

### 2.3.2 Capacity for Enforcement

In Indonesia, many international companies have adopted policies to improve sustainability and decrease negative impacts on local communities and the environment. Yet, these policies may not be realistically enforceable or have adequate resources for enforcement.



In Indonesia, two of the biggest US Based companies, ADM and Bunge, who buy palm oil from Indonesian mills are failing to follow through with their own company policies and national & international laws. The companies have engaged in land seizing and attacking local land defenders (Global Witness 2020).

The companies ADM and Bunge have been accused of ignoring reports of human rights abuses and land rights violations linked to palm oil mills they monitor. A report by Global Witness found that of the 129 mills linked to reports of conflict, only seven were subject to ADM's grievance process in 2020 and 15 were subject to Bunge's. However, even in these limited cases, the traders only monitored deforestation-related allegations and did not consider reports of human or land rights abuses associated with most of these mills. The report cites examples of conflicts between scrutinized mills and land and environmental defenders, which the traders appear to have ignored. One such example is PT Medcopapua Hijau Selaras (MPHS) palm oil mill in West Papua province, which both ADM and Bunge are monitoring due to evidence of deforestation, but the grievance process omits defenders' accusations that MPHS took community land without adequate consultation or compensation. Another example is PT Delima Makmur, a palm oil mill operator in Aceh that is on Bunge's grievance list for alleged deforestation, but Bunge has overlooked the company's criminal investigation for land grabbing (Global Witness 2020). This proves that Bunge and ADM may not have the framework in place to carry out its responsibilities.

The capacity for enforcement in Indonesian agribusiness is low with room for significant improvement. Many large companies are not following through on their own environmental policies. Additionally, the government is not enforcing forestry and permitting laws as seen with

the \$2 billion dollar revenue loss mentioned in section 2.1.2. Large companies do not provide sufficient resources to prevent human rights abuses or address grievances of locals.

### 2.3.3 Accountability

Agribusinesses have obligations to fulfill certain ethical standards, yet this is not always the case. Human Rights Watch found that according to the United Nations Guiding Principles on Business and Human Rights Indonesian agricultural companies in West Kalimantan and Central Sumatra are failing to uphold their obligations regarding human rights (Nnoko-Mewanu 2019). For example, the parent company of Sari Aditya Loka 1, PT Agro Astra Lestari, operates a plantation in the Jambi Province and several sustainability, traceability, and grievance remediation policies. Another company, PT Ledo Lestari operating a plantation in Bengkayang, West Kalimantan, has no published policies regarding sustainability or the protection of Indigenous people's rights and has not engaged with Human Rights Watch or other NGOs (Nnoko-Mewanu 2019).

In other cases, companies rely on unsustainable practices to fuel their company growth. Indonesia's forestry industry is largely based on the production and exportation of paper. Many pulp mills were built in the 1990s before logging plantations were able to legally supply enough wood to meet the industry demand. In a report from 2013, instead of reducing the capacity of pulp mills, the paper industry voiced plans to almost double mill capacity by 2015, further increasing illegal exploitation of forest resources in Indonesia. This comes after numerous NGOs and state actors urged against the measure (Human Rights Watch 2013).

Banks have also failed to hold themselves accountable. HSBC, along with five other leading banks, BNP Paribas, Deutsche Bank, Rabobank, JPMorgan, and Bank of China, have

been accused of financing deforestation in Indonesia. Despite making public commitments to align investments with the Paris Climate Agreement and screen clients to reduce impacts on forests and biodiversity, these banks have continued to make deals with deforesters. HSBC is the largest financier of destructive agribusiness in the UK and made deals worth \$6.85 billion with some of the world's worst deforesters, earning around \$36.4 million in proceeds from their clients' deforestation-risk businesses. While HSBC publicly committed to stop financing firms accused of deforestation in 2017, its investments account for more than half of all British deforestation financing analyzed by Global Witness (Global Witness 2021).

These cases among others warrant a “low” ranking of accountability in agribusiness with significant room for improvement. A culture of self-compliance will likely take decades to instill. Companies must start to adhere to international and national ethical standards without requiring a high level of pushback or enforcement from other actors.

#### 2.3.4 Transparency

Transparency is key especially between local actors and large entities. Many times, companies have made promises that are not kept. PT Ledo Lestari, attempted to persuade people to give up their homes the company representatives promised residents land titles, shares from plasma (palm oil plot), community plantation, access to health clinics and schools, and permission to continue harvesting within their yards. Community members have complained that none of these promises have been kept. In some instances, company security guards confront community members over harvesting oil palm from their backyards to use for cooking, with the implication it is company property. In regard to the state, to their credit, Bengkayang police will

act as mediators between the local community and PT Ledo Lestari in order to diffuse tensions (Nnoko-Mewanu 2019).

In other instances, companies are not forthcoming with their plans. Only after public pressure do agribusiness companies consult local communities. In West Kalimantan, PT Ledo Lestari consulted with local people to sell family land after protests from the Iban Dayak people on the island of Borneo. Women from the community spoke out saying they were excluded from the conversion due to gender norms. This company paid around \$70-140 USD per hectare to residents, a total of 1-2 million Indonesian rupiah to 93 different households. This did not however make up for the loss of the community's adat forests, wild rubber and other local commodities that women in the community use to sustain their livelihoods (Nnoko-Mewanu 2019). These dubious tactics create a breeding ground for conflict which if unchecked will lead to further depletion of forest resources.

Transparency is low for agribusiness as they have little to gain by being voluntarily transparent. Agribusinesses only consult with locals or provide remediation after significant pushback. There is significant room for improvement in agribusiness transparency.

## 2.4 Indigenous People and Local Communities

Indonesia in some ways resembles Brazil's dynamic of local and Indigenous communities. Like Brazil, Indonesia is a former colony where people indigenous to that country were marginalized by the Dutch Colonial Government. Similar to Brazil, indigenous and local people are more isolated and lack the same power as their more integrated counterparts. The three main Indigenous groups mentioned are the Dayak, Marind, and Orang Rimba. The Dayak are traditional hunter-gatherers who live on the island of Borneo in Indonesia, the Marind are

traditional hunter-gatherers who live on the coast of the Indonesian province of Papua, and the Orang Rimba are traditional hunter-gatherers who live on the island of Sumatra in Indonesia, specifically in the provinces of Jambi, Riau, and South Sumatra. These Indigenous groups are very small compared to the rest of Indonesia. About 43% of Indonesia's population live in rural areas. There are more than 270 million people living in Indonesia. The Dayak make up an estimated 2 million people living in Indonesia, the Marind about 100,000, and the Organ Rimba make up about a few thousand people. This means that the Indigenous population is very small so the cultural and historical importance of forests may vary.

Forest rights function as outlined by the central government. The state issues surat keterangan tanah (SKT) certificates that recognize communal rights to forest lands. Under international law some of the communities are classed as Indigenous people that have rights to land and natural resources. Some of these agreements are the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) and the UN Declaration on the Rights of Indigenous Peoples. Indonesia has been called out by UN Committee on the Elimination of Racial Discrimination (CERD) to “review its laws ... as well as the way they are interpreted and implemented in practice to ensure that they respect the rights of indigenous people to possess, develop, control, and use their communal lands” (CERD 2007; Human Rights Watch 2013).

Under Indonesia's constitution, customary rights (hak-hak asal-usul) such as land rights are recognized regarding traditional communities. Under sectoral laws, namely the 1999 Revised Forestry Law and 2004 Plantations Law, protection is implied rather than realistically provided. The Plantation Law asks that an Indigenous community must prove its existence before it has the right to consultation and compensation from plantation companies. This process is so difficult

and expensive that only a few communities have retained their status. The Revised Forestry Law aims to provide a legal framework for sustainable forest management, conservation, and community-based forestry in Indonesia.

A report from Human Rights Watch found that in Indonesia Indigenous people attempt to have their rights to customary land recognized and in general the customary rights of indigenous people are protected in theory by laws but not in practice. To complicate matters further, very few indigenous territories have been issued legal certificates (Nnoko-Mewanu 2019).

#### 2.4.1 Participation

Pathways for participation remain limited as complaints from local communities are not fully considered in many policy processes. In January 2012, fifty farmers from Sumatra protested the clearing of a forest for a pulp plantation by sewing their mouths shut. Additionally, some farmers, still concerned their complaints were not being adequately addressed by the government, threatened self-immolation if the lands were not removed from the plantation concession. This shows the lengths local actors will go to for their voices to be heard (Human Rights Watch 2013).

In some cases, processes reserved for Indigenous people are being taken advantage of by other groups. In these instances, non-Indigenous people have taken advantage of the indigenous claim process started by the implementation of the Plantation Law and have submitted false land claims. Register 45 case demonstrates that unscrupulous actors at both national and local levels have taken advantage of the current confusion around land rights by encouraging migration, falsifying “indigenous” claims and engaging in land speculation. Without credible means of

distinguishing legitimate from false claims, strengthening recognition of indigenous communal rights on its own could result in a boom in fraudulent claims and more violence.

In some cases, local people may be the perpetrator of illegal practices. In a report from Human Rights Watch there has been documented illegal land sales by local people to migrants hired to work in these plantations going back to 2006. This has caused tensions to rise with other locals threatening to remove these migrants and the migrants pushing back threatening to resist if action is taken (Human Rights Watch 2013). There is also evidence of PT Sintang Raya and its subsidiaries involvement in several incidents where they used family members and had them take their relatives identification in order to sell the land without their knowledge or compensation (Nnoko-Mewanu 2021).

As mentioned in 2.2.3, some IPLCs groups are at odds with each other and have more power than one another. The Dayak of Kalimantan are perceived as having a more legitimate claim to the land since they were there first before landless migrants were put there by the government. These landless migrants, Malays of Pendulangan and Tanjung Puteri, have been on the land since the 1800s and rely upon it to cultivate crops to sell. They are excluded from participating in REDD+ projects disallowing them from using the land and any payments that substitute using forest resources with payments to protect land. This exclusion results in solutions that are not long term and may lead to eventual conflict. If livelihoods of small local actors are not sustained, then the result may be increased forest crimes and violence (Howson 2017).

Women are also at risk of not being included in participatory pathways due to cultural stigma and norms (Program Peduli 2016). A report from the Australian aid agency supports this finding. The report found that Indonesia “faces substantial challenges in its efforts to reach and

serve the poor, especially poor women” which makes up the majority of women living in rural areas and “While women actively contribute to the national and household economy, they are excluded from many decision making structures and processes at the family, local and national level” (AusAID 2012). This lack of participation pathways for women limits the success of forest governance strategy since women play a significant role in local forest management practices.

Participation in formal pathways by IPLCs is relatively low, but is high when using informal pathways. This is particularly evident in the case of women who hold little formal power, but wield significant power at the grassroots level. Participation in IPLCs is ranked as high with room for improvement, due to widely divergent access to power for the various groups.

#### 2.4.2 Capacity for Enforcement

IPLCs in some cases in Indonesia are better at managing forests. Their traditional knowledge and practices also enable them to maintain the forest's ecological balance while promoting biodiversity and protecting important species. Therefore, IPLCs should be seen as key partners in forest governance, and an extension of their role should be prioritized to ensure a more balanced system of governance. The success story of IPLCs in the Padang Tikar village in West Kalimantan Province highlights the importance of enforcing forest governance to enable rural communities to thrive sustainably. By legally accessing and managing 76,000 hectares of mangrove forests, the community generates a monthly profit of approximately IDR 325 million (US\$ 22,000) through agroforestry-based businesses and honeybee keeping. This exemplifies how providing legal access to forest use can yield significant benefits for rural communities.



This success story serves as a reminder of the positive impact that effective forest governance can have on rural communities and the importance of continued efforts to enforce it (The World Bank 2021).

In other cases IPLCs could have a potentially negative impact on forests with there being reports of locals acting as third parties for selling land to agribusiness (Human Rights Watch 2013; Nnoko-Mewanu 2021). This could potentially be due to the fact there are no resources or provision to maintain their livelihood and therefore if there were land rights or some type of providing resources the occurrence of these scenarios could be decreased.

IPLCs are a diverse group. Some have a stake in protecting forests, others take advantage of unclear land tenure for their own benefit which can include exploiting forest resources. Capacity for enforcement in IPLCs is relatively high with room for improvement, noting some IPLCs have themselves committed forest crimes.

### 2.4.3 Accountability

One example of Indigenous people holding other actors accountable in Indonesia is the case of the Dayak Iban community in West Kalimantan. They formed a community-based organization called Laman Kinipan to challenge the government and logging companies that were exploiting their forests without their consent. Through advocacy and legal action, Laman Kinipan successfully secured legal recognition of their customary forest rights and stopped the logging operations (Rainforest Rescue 2021)

Another example is the alliance between the Dayak Benuaq and Penan communities in East Kalimantan, who formed an organization called AMAN Kaltim to advocate for their rights and protect their forests from encroachment by palm oil companies. Their efforts resulted in the

revocation of several oil palm permits and the recognition of their customary forest rights by the Indonesian government (Down to Earth Indonesia December 2013).

These examples illustrate how Indigenous people in Indonesia are taking proactive steps to hold governments and corporations accountable for their actions that affect their lands and livelihoods. By organizing and advocating for their rights, they are creating positive change and promoting sustainable forest management practices. All of this warrants a high accountability ranking for IPLC in Indonesia.

#### 2.4.4 Transparency

One example of Indigenous people making other actors' actions transparent in Indonesia is the case of the indigenous Batak community in North Sumatra. They formed a community-based organization called ForBatak to monitor and report illegal logging activities in their ancestral forests. ForBatak members use smartphones and GPS technology to collect and report data on illegal logging activities, which they then share with local authorities and media outlets to raise awareness and hold responsible actors accountable (Ives 2019).

Another example is the work of the Dayak community in Central Kalimantan, who formed a community monitoring group called MPAK to monitor and report on illegal logging and mining activities in their forests. MPAK members receive training on forest monitoring techniques and use smartphones to document illegal activities, which they share with local authorities and NGOs to take action (Kimbrough 2020; Brofeldt et al. 2018).

These examples demonstrate how indigenous communities in Indonesia are using technology and community-based monitoring to increase transparency and accountability of actors involved in activities that affect their lands and livelihoods. By working to expose illegal

activities and raise awareness, these communities are promoting greater transparency and pushing for responsible and sustainable forest management practices. These practices justify a high transparency ranking for IPLC in Indonesia.

## Discussion

Table 2: Actors in Indonesian Forest Governance rated by PEAT criteria.

Actor	Evaluation
State	<p><i>Participation. Low.</i> The central government has a forest governance framework and growing # of institutions in place but IPLCs still lack adequate means to participate.</p> <p><i>Enforcement. Low*:</i> state actors struggle to collect revenues from agribusinesses, enforce permitting, and reduce violent crime.</p> <p><i>Accountability. Low:</i> monitoring practices are left to regional authorities who lack the institutional mechanisms to hold themselves and violators accountable.</p> <p><i>Transparency. Low*:</i> state at times withhold information on monitoring and permitting and put policies into place that favor agribusiness.</p>
NGOs	<p><i>Participation. High*:</i> Larger NGOs like UN REDD+ projects fail to seek out pathways to understand community dynamics that result in the failure of projects; smaller NGOs like AMAN help to emphasize local voices</p> <p><i>Enforcement. High*:</i> There is a chronic lack of resources from international sources for NGOs specifically in the case of REDD+ projects. Smaller NGOS help to collect information and maintain better relationships with local actors that allows them to anticipate their needs</p> <p><i>Accountability. High*:</i> REDD+ project fail to hold themselves accountable to collecting feedback from local actors. Smaller NGOs provide meaningful information to hold other actors accountable.</p> <p><i>Transparency. Low*:</i> Some NGOs provide information that increases insight into forest crimes, but larger projects like REDD+ overstate the effectiveness of projects and fail to address root causes of deforestation</p>
Agribusiness	<p><i>Participation. Low*:</i> agribusiness do not consult sufficiently with local actors and limit access to the forest and decision-making processes.</p> <p><i>Enforcement. Low*:</i> Large companies do not put forth sufficient resources to prevent human rights abuses or address grievances of locals.</p> <p><i>Accountability. Low*:</i> agriculture companies and banks fail to hold themselves accountable to their own deforestation policies.</p> <p><i>Transparency Low*:</i> Agribusinesses only consult with locals or provide remediation after significant pushback.</p>
IPLCs	<p><i>Participation. High*:</i> IPLCs need to include women and less powerful ethnic and indigenous groups in its participation pathways.</p> <p><i>Enforcement. High*:</i> while some IPLCs help to protect forests, other local actors take advantage of unclear land tenure for their own benefit further exploiting forest resources</p> <p><i>Accountability. High:</i> IPLCs provide information to hold other actors accountable</p> <p><i>Transparency. High:</i> IPLCs take up enforcement efforts and report on illegal crimes helping to keep other actors accountable</p>

\*Indicates there is room for improvement

The Indonesian case study and rating table provides useful information on the major players and their relative impact on forest governance and their contribution to countering the effects of deforestation. As evidenced by the case study and table, the forest governance system in Indonesia is an evolving version of Ostrom's theory of collective management. Indonesia's forest governance system is a combination of state-led conservation efforts and community-based management, with varying degrees of success.

The most significant findings include:

- Despite fewer pathways for participation, IPLCs play an outsized role in informal forest governance, compensating for weaker state participation.
- The effects of Dutch colonization with its emphasis on exploitation linger and will take time to be subsumed by a healthier Indonesian approach.
- As a state Indonesia has made strides in institutionalizing forest governance but lags the more robust approach in Brazil
- NGOs are serious, persistent advocates for sound forest governance and relentless in calling out those practicing deforestation.

While to some degree IPLCs can overcome the collective action problem. IPLCs in Indonesia are at odds with each other at times, with Indigenous people and the local people advocating for different approaches to forest governance. Thus, in Indonesia, IPLCs both deter and contribute to forest degradation. The main difference in this lack of a land ethic seen in local

people is the strong colonial and agribusiness ties that permeate rural communities in Indonesia. The transmigration program, as mentioned in section 2.1, initiated by the Dutch colonial governments in the late 1800s repopulated rural areas with landless migrants to work under large plantation owners, consequently linking smallholder livelihoods with the agriculture industry. A journal article published in October 2022 supports this idea and found that transmigration produces a migrant experience that is akin to colonization (Pratiwi, Matous, and Martin 2022). In transmigration, the migrants are a part of the dominant majority which expropriates locals of their land and imposes governing structures that are similar to the colonizing nation (Pratiwi, Matous, and Martin 2022; Côté 2018). As such, Indigenous people and their values have been largely deposed by values first espoused by the Dutch colonial government and extended by the current Indonesian government. Consequently, the collective efforts of agribusinesses and the support from the state and local people supersedes the interests of Indigenous people to protect the land their livelihoods so hardily rely on.

Another significant finding is that REDD+ projects have difficulty getting off the ground because donors are unwilling to fund initial stages of projects and instead desire to see results first. Additionally, many REDD+ in Indonesia showed that there was a lack of public outreach and communication about the views of participants. As a result, projects did not reflect and address their concerns leading to uncertainty and negative views of the project resulting in termination of the projects.

Unlike Brazil, in Indonesia there are no councils or forums within the central Indonesian government or in many regional governments that are organized and funded by the government

to deal with deforestation. This severely limits the information provided to the government for policy making. The challenge with Indonesia is that there is not a strong enough framework in place for establishing good forest governance to protect forests. Whereas Brazil has a strong framework but struggles to have the resources (money and personnel) to enforce it. Luckily, NGOs do take on the role of collecting and disseminating information which contributes to the capacity to enforce illegal crimes and bring them into view.

One expected finding was on the activities on agribusiness and that across the board they score poorly on the PEAT framework. Agribusiness activity received considerably less international attention than Brazil, reducing some incentive for accountability for companies to create programs to prevent resource depletion and engagement with communities affected by their activity.

## Conclusion

This study has evaluated the efforts of Brazil and Indonesia to implement forest governance, utilizing the PEAT (Participation, capacity for Enforcement, Accountability, and Transparency) framework to assess the roles of various actors, including state actors, non-governmental organizations, agribusiness, and Indigenous People and Local communities. By comparing and contrasting the forest governance approaches of these two countries, this thesis has identified successful strategies that have improved forest governance, as well as persistent obstacles that continue to hinder progress. By analyzing these cases in depth, the study has extracted important lessons that can be applied to improve forest governance efforts elsewhere in

the world. In the following paragraphs, we will highlight these successes, identify persistent obstacles, and extract lessons that can be broadly applied to improve forest governance practices worldwide.

Both Brazil and Indonesia have considerable similarities regarding forest governance. Brazil and Indonesia both participate in REDD+ and several other international initiatives such as the Paris Climate Agreement and Glasgow Climate Pact. Both countries have also devoted a considerable amount of time and resources to establish institutions and their infrastructure for forest governance and environment regulations. The good news is all actors in Brazil and Indonesia are cognizant of the importance of forest governance as evinced by all the initiatives to improve upon current systems.

Yet, executing as a collective whole remains a work in progress. Both Indonesia and Brazil have tried to implement forest governance that decreases deforestation through mixed models of forest governance that combine government control with privatization but have failed to consider and create pathways sufficient for the participation of minority voices (IPLCs). The literature has shown that both struggle to have the capacity or motivation (collective action) to enforce laws and regulations in place. This is mostly due to the power and economic incentives provided by depleting resources and participating in agribusiness. Additionally, both have decentralized systems of governance that have led to weakened or unclear environmental protection and a lack of clarity on land tenure rights or governance structures (Rink 2019).



Indonesia and Brazil could benefit greatly from following Ostrom's alternative solution to forest governance: a scenario where actors come together to create a binding agreement that allows them to cooperate as a collective. This way would broaden perspectives on the strategies used in forest governance and in turn produce better results because it reflects what will work in each community.

Future research on this topic should explore the potential of evaluating individual projects or actors in more depth, using a governance framework such as PEAT. In particular, there is a need for further investigation into the most effective strategies for disseminating aid through REDD+ projects and other channels to build capacity for combating deforestation. To achieve this, research should focus on individual case studies, examining the social and economic drivers of deforestation in specific communities and identifying strategies that can engage all stakeholders, including indigenous peoples and local communities. By prioritizing accountability, transparency, and effective enforcement mechanisms, future research can help to reduce deforestation rates and promote sustainable forest management practices in Brazil, Indonesia and other countries of the world.

# Appendix

## Sub-questions under the PEAT framework used to evaluate actors:

### Participation

- Are consultations with stakeholders carried out and is the feedback used in decision-making processes within a given group of actors?
- Do individual stakeholders have the capacity to be actively involved in forest management and planning?
- Is there regional and local collaboration within the group?

### Capacity for Enforcement

- Are the external monitors and evaluators of this organization's activities independent of the people whose activities they monitor?
- Is the organization on the same page?
- Does the organization have the resources (people, training, skills, tools, etc) available to keep themselves in check?

### Accountability

- Any case of failures within the organization to meet their obligations to disclose information?
- Is there a legal framework in place to ensure good governance and forest management?
- Has the organization adopted and implemented voluntary environmental and social safeguards?
- Is there a code of conduct including provisions against participating in corruption?
- Is the media independent and free within a given country to publish reports on forests and their management that is accessible to the public?

### Transparency

- Is there public access to information?
- Is there public notice of proposed forest policies, programs, laws, and projects that occur within the organization?
- Does the government have a transparent, credible, and comprehensive system of tracking its revenues and expenditures in the sector?
- Are there measures in place that allow for the follow of money and resources to be tracked? Is any of this public information?
- Does the organization function in an open and transparent manner with adherence to the rule of law? Is there transparency of the whole supply chain (for agribusinesses)?

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