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# Indigenous Tribes in the Brazilian Amazon: Finding a Balance between Sustainability and Economic Development

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***Indigenous Tribes in the Brazilian Amazon: Finding a Balance between Sustainability and Economic Development***

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in *Department of Political Science and International Studies*

By: Bernadette O'Donnell,  
Under the Mentorship of: Dr. Matthew Flynn

Abstract

The number of isolated indigenous tribes in Brazil is dropping due to a multitude of factors, including resource extraction. If these factors continue, there will be further reduction of the population of indigenous tribes which causes the loss of culture of the world's oldest societies. This research establishes the roles that the Brazilian government, NGOs and the international community should play to preserve indigenous tribes. The research question is: How can Brazil sustain isolated indigenous tribes in the Amazon without compromising its own economic development? The research method is the modified Delphi method which results in a consensus of experts on the best practices to sustain these tribes. This study's findings show that combining a new Brazilian economic model, decreasing climate change, creating and enforcing land demarcations, increasing indigenous involvement and advocacy, and adding pressure from the international community can reverse the decline of the isolated indigenous population in the Brazilian Amazon, preserving any remaining culture and identity for these communities.

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Bernadette Rose O'Donnell

## Introduction

Brazil's Amazon forest harbors more isolated indigenous tribes than any other area in the world (Survival International n.d). According to Brazil's National Indian Foundation (FUNAI), there are 240 tribes residing in Brazil with over seventy isolated communities in the Amazonian region (n.d). With 690 government territories preserved for Brazilian indigenous populations, these demarcations cover thirteen percent of the country, most of which is in the Amazon forest.

For ten Brazilian indigenous tribe members, a trip to find food turned into a massacre. In September 2017, a group of uncontacted indigenous peoples were looking for eggs near the Colombian border in the Brazilian Amazon and were killed by gold miners (Darlington 2017). The gold miners killed all ten tribe members before cutting them up and disposing of the pieces in a river. This allegation arose after the gold miners went into a nearby bar, bragging about their killing of the indigenous peoples (Darlington 2017).

There are over 100 uncontacted tribes in the world with about 77 tribes in the Brazilian Amazonia (Holmes, 2013). This number is dropping due to a multitude of factors including pressures from the extractive industry, as seen from the recent massacre committed by gold miners in Brazil. These pressures can include displacement from indigenous land, violence or even health problems due to environmental effects of resource extraction. Studies show uncontacted indigenous populations have been declining in recent years due to these factors (Walker 2016).

The dangers that indigenous populations in Brazil experience also affect other indigenous groups around the world. Worldwide, indigenous peoples have

disproportionately higher rates of poverty, human rights abuses, and health issues than non-indigenous groups in their prospective countries (United Nations 2009). Indigenous peoples make up about five percent of the world population, but amount to one-third of the world's nine hundred million extremely poor rural people (United Nations 2009). In the United States, Native Americans are 62 percent more likely to commit suicide than non-Native Americans (United Nations 2009). Australian Aborigines, on average, die twenty years earlier than the general country population (United Nations 2009).

Regarding education, over 50 percent of Guatemalan indigenous youth have not finished primary education. These are only a few examples of the many injustices that are a reality for indigenous groups around the world. If Brazil can learn to sustain and empower its own indigenous population, then their sustainability model can help other countries to improve the lives of native groups around the world.

Without protection, ethnic groups in Brazil and worldwide will go extinct.

According to the *United Nations State of the World's Indigenous Peoples Report*, about three percent of the world's population speaks ninety-six percent of the world's languages (2009). The report predicts that in the next century, about ninety percent of the world's languages will be extinct (United Nations 2009). The United Nations adopted a *Declaration on the Rights of Indigenous Peoples* in 2007, but the rights of isolated or uncontacted tribes are not specifically addressed, meaning the plights of these endangered groups will continue to go unaddressed (United Nations 2007).

Brazil's Constitution of 1988 also includes indigenous rights and has land allocations in place for isolated tribes, but Brazil has done little to enforce these. There are risks of danger to these tribes, whether or not the government intervenes, therefore it

is important to identify what solutions and policies can sustain these vulnerable tribes.

The research question is: How can Brazil protect and sustain isolated indigenous tribes in the Amazon without compromising its own economic development? If the factors inhibiting the sustainability of indigenous tribes continue at the same rate, there will be a further reduction of the population of indigenous tribes through extinction and conflicts between tribes. This, in turn, contributes to the loss of culture and identity of the world's oldest societies.

This paper begins by reviewing a variety of literature on the topic. The literature review gives a brief historical context of indigenous communities in Brazil, followed by the economic demand of resource extraction in Brazil. Then, the environmental and health effects of resource extraction on indigenous groups, the Brazilian government's role in the decline of indigenous populations, and the evolution of indigenous rights. The literature review ends with policy prescriptions from authors on how best to protect indigenous communities. Next, theoretical relationships uncovered in the literature review are expanded in the theory section. This section lays out causal mechanisms responsible for the decline of indigenous tribes while brainstorming solutions to these mechanisms. Then, an outline of the method used for this study is recounted in the research design section. Finally, results are displayed followed by discussion and prescriptions to help solve the decline of indigenous populations in the Brazilian Amazon.

## Literature Review

In the past six decades, there has been a major decline of isolated indigenous tribes in the Amazon forest. A study shows that out of the eight uncontacted groups in the Amazon that were monitored for fourteen years, seven of these groups diminished to near extinction levels, while only one group grew (Walker 2016).

Sustaining the remaining isolated tribes in Brazil will be a challenge because the same extracting activities and urban development that threaten isolated tribes also contribute largely to Brazil's economic growth. Concerning Brazil's economic revenue, China and the European Union (EU) are just two of the many international pressures that contribute to the amount of resource extraction in the Amazon forest (Kaimowitz 2004). According to the World Wildlife Fund, eighty percent of deforestation today is done to make space for cattle ranching. This is because Brazilian beef exports are linked to Brazil's economic growth and the value Brazil's currency, the real (Kaimowitz 2004). When the real decreases in value, beef prices double, motivating farmers to clear more area for cattle ranching (Kaimowitz 2004). In addition to market incentives and the strength of the Brazilian economy, there are many more underlying factors that affect the survival uncontacted tribes. This paper studies the circumstances behind the human rights issue of indigenous survival and the policies that can help solve this problem.

### *The Historical Threat to Indigenous Peoples*

The concept of isolationism has been studied for centuries. In the fourth century BC, Aristotle proclaimed "man is a political animal," meaning that humans are social by nature. Other philosophical thinkers like Augustine, Freud, and Marx agreed with

Aristotle that being isolated is unhealthy or moral and that isolationism is a block to being considered humane (Bessire 2012). One might argue these thinkers were referring to individual isolation, rather than the isolation of an entire community. While isolated tribes have social relations within their own community and other like communities, they have none or little relations with any communities in the modern and outside world. An example to prove this is how the “Wild Men” in ancient Greece were portrayed as sub-human because they lived in forests outside of the main cities, ignoring the laws of the land while avoiding outside contact (Bessire 2012, 474). This negative idea of isolationism was common until recently. Isolationism is just starting to be thought of a fundamental right by human rights activists.

Before colonization in Brazil by the Portuguese, indigenous populations had lived and thrived in their territory for at least thirty thousand years (Survival International n.d). In the sixteenth century, there were over a hundred thousand separate native language groups (Skidmore 1999, 14). Since its founding as a colony, Brazil’s economic model, based on resource extraction and exploited labor, has threatened indigenous communities. In the century following Portuguese invasion, ninety percent of the Brazilian native population died due to diseases. The Portuguese wanted a native labor force to build their economy in Brazil, and this resulted in thousands more indigenous deaths due to slavery and the expansion of rubber and sugarcane plantations. This same exploitation continued throughout Brazil’s history. Due to the epidemics and violence, the survivors fled into the rainforest which became the only place they could survive, without exploitation and disease (Skidmore 1999). The Amazon forest is where Brazil’s isolated tribes remain today, free of contact.

The impact of European colonialism is the driving force behind the continuing decline of uncontacted indigenous populations, with their rights systematically ignored (Anderson 2004, Jaksa 2006). Although colonialism ended two centuries ago in Brazil, Jaksa (2006) believes racially based colonialist ideals continue to exist in Brazil's power structures (159). Brazil's development model has and continues to have a human cost, specifically indigenous lives (Abelvik-Lawson 2014). The system is created to benefit modern organizations and businesses (Abelvik-Lawson 2014). These corporations, in turn, are one of the main ways a country can increase economic revenue, a task that often takes priority over indigenous rights (Abelvik-Lawson 2014). Just like Europeans used Christianity to justify their colonialism in the fifteenth and sixteenth centuries, Brazil uses economic and political crises to justify government policies and ventures that negatively affect indigenous tribes in the Amazon (Fifty Brazilian Civil Society Organizations 2017). The need for economic development, natural resources, and cheap labor is one of the ideals of European colonialism that has carried into Brazil's government, legal and economic structures today.

The demand for resource extraction in the Amazon surged during World War II (Galeano 1997, 89). Due to the war, there was a new need for Amazonian rubber. When Japan invaded East Asia and the Pacific, while also raiding the Peruvian Amazon for rubber, the Allied Powers gravely needed more suppliers of rubber and other materials. This sent the Allies to northeastern Brazil. Due to this sudden need for rubber, the Brazilian government took advantage of the indigenous populations in the Amazon, using them for cheap and unlimited labor, while taking their land and resources (Galeano 1997, 89).

Shortly after the end of World War II, the first of many Brazilian military governments came about after a coup d'état in 1964. In general, these institutions focused largely on economic revenue, doing so by introducing reforms that protected the land of the aristocracy which led to the extraction of more resources and the denying of human rights of native populations in the Amazon (Galeano 1997, 129). One of the most repressive military rule dictatorships was the Rural Indigenous Guard (GRIN). GRIN created a police force almost entirely composed of indigenous peoples (Snider 2012). This police force controlled the indigenous with minorities supervising and guarding other minorities. In addition to the native police force, GRIN created more issues for the indigenous population by employing use of torture when the communities did not comply. These things were the government's way of forcing indigenous populations off their land to develop it while assimilating them into modern society (Snider 2012).

In 1968, Manuel dos Santos Pinheiro, one of the leaders of the Military Police of the State of Minas Gerais, created oppressing institutions for the indigenous called "reformatories" (Snider 2012). Pinheiro sent any natives who refused to comply with forced removal to a reformatory (Snider 2012). These were like concentration camps that educated the prisoners on how to effectively serve the Brazilian government through physical punishments, hard labor and heavy surveillance (Paraiso 1998).

Another repressive measure constructed by the military regime was the effort to move the Brazilian population from the coast to the center of Brazil, near the Amazonian area. The government wanted to expand its power and bring economic development into the interior of Brazil (Snider 2012). To achieve modernization and encourage expansion, the government attempted to build a Trans-Amazonian highway (Snider 2012). Building

this highway forced more dislocations of indigenous from their lands in the Amazon, as they were an obstacle to development.

In 1985, a civilian government party gained power, and thus began Brazil's process of democratization. Because of this, the future of indigenous peoples looked hopeful. Brazil drafted its current Constitution in 1988 which mentions indigenous rights. This Constitution seemed to point towards a new period of peace between the Brazilian government and native communities (Rodrigues 202, 488). But, the assimilationist ideals of military regimes continued in its new democratic institutions. Today, indigenous rights are still restricted and abused by Brazil's interest in economic development, modernization, and discriminatory ideologies (Rodrigues 202, 488).

Since the start of resource extraction and the push for economic development in the Brazilian Amazon, there has been an average of one tribe going extinct per year in the past century (Survival International n.d). To protect tribes from resource extraction, the 1988 Constitution demarcated four hundred hectares of land per Brazilian indigenous person. This allocation did not have all positive effects, though. Due to this land allocation, the Yanomami tribe only received a land demarcation equal to twenty-five percent of their original territory (Anderson 2013, 980). While this demarcation and Constitution was a solid start to the journey for indigenous human rights, Brazil still has a long way to go to fully protect its Amazonian tribes.

Beginning in the 1980's, Brazil underwent a period of trade liberalization, causing the country to experience a large wave of globalization. This wave had many effects on Brazil, and specifically, the Amazon and its indigenous communities. After liberalizing its economic sector, the Brazilian government began the process of integrating the

Amazonian region with the national economy to increase revenue (Nepstad 2006). This project consisted of colonization programs which created incentives for cattle farmers to move to the Amazon region. This period of Brazil's history is responsible for much of the deforestation of the Amazon. By 1990, over fifteen percent of the Amazon had been cut down (Nepstad 2006). The cattle-herding industry grew eleven percent per year from 1997 to 2004 (Nepstad 2006). As the demand for cattle ranching grew, so did the need for soybean products due to a worldwide shortage of animal-feed protein. Soy companies began to invest in Brazil, causing the production of soybeans from the Amazon to grow fifteen percent yearly from 1999 to 2004 (Nepstad 2006).

### ***A Double-Edged Sword: Economic Sustainability and Indigenous Preservation***

The World Wildlife Foundation has reported an increased number of incidents of farmers and extractors invading demarcated Amazonian land (Biller, Shinohara 2017). Rhett Butler (2008) claims the recent increase of deforestation is due to pressures for natural resources and globalization. If the current rate of deforestation continues, half of the Amazon is projected to be destroyed within the next twenty years (Butler 2008). Since Brazil's economic development is closely linked to deforestation in the Amazon, it is easy to see how indigenous lives are more in danger than ever.

The international market is behind much of the resource extraction that occurs in the Brazilian Amazon forest. Because the Amazon contains an array of resources including minerals, timber, and soil perfect for agriculture, Brazil is a global leader in extractive activities (Sánchez 2012). The Brazilian state of Pará provides up to half of the total exports from the Amazon (INESC 2011). In the last decade, international

Amazonian exports have increased notably, equaling twenty-six billion dollars in 2010 (Sánchez 2012). Brazil's total monetary gains from trade amounted to seventy-eight billion dollars in 2014, much of which comes from extraction (Ashworth 2016).

Transnational corporations and countries strive to make a profit and often do not consider the possible effects their ventures have on the environment or indigenous peoples. Due to this international and domestic demand, Brazil's resource industry continues to thrive and will continue to do so until there is less demand. One industry that continues to grow is the mineral sector. From 2010 to 2014, Brazil invested sixty-two billion dollars into its mineral sector, the country's biggest investment group (Sánchez 2012). Brazil is the international leader in iron ore exports, with eighty-one percent of the world's exports for that mineral (Sánchez 2012).

The global market is increasingly affecting Brazil's economic growth and development in the Amazon. An example of this is Brazil's growth rate of cattle ranching and agriculture. After BSE (bovine spongiform encephalopathy), a disease caused by eating diseased meat products broke out in Europe, the European Union placed a ban on all animal-protein-based rations (Nepstad 2006). This created an international need for soy-fed livestock and soy meal. Since the EU also opposes genetically modified (GM) crops, it looked to the Brazilian Amazon, the leading supplier of non-GMO soy of the world (Nepstad 2006). The EU became Brazil's most important export market for soybeans. Yearly, Brazil sends six million tons of soy into the EU, half of the EU's total soy imports (Nepstad 2006).

In 2014, Brazil's economy recovered significantly from its recession in 2009, resulting in less deforestation in the Amazon, less poverty and less inequality (World

Bank 2017). Unfortunately, this economic boost did not last long. Currently, Brazil is going through another recession, more profound than the one in 2009 with GDP growth steadily declining to negative percentages (World Bank 2017). In effect, the rate of deforestation rose twenty-nine percent in 2016 (Biller and Shinohara 2017).

Deforestation in the Amazon has an inverse relationship with Brazil's economic growth because its raw materials, often extracted from the rainforest, makeup forty-five percent of Brazil's exports in 2016 (Ashworth 2016).

### ***Environmental and Health Effects of Extraction Activities on Indigenous Populations***

The Amazon's successful extractive industry negatively impacts the indigenous communities which reside there through deforestation, pollution, and land displacement (Sánchez 2012). For instance, oil spills and waste from resource extractors cause pollution in areas near the communities. Years of pollution can contaminate water that native populations, who cannot easily change water sources, use daily (Malasky 2016). The Peruvian area of the Amazon has experienced similar environmental issues stemming from resource extraction, just like Brazil. In June of 2014, Petroperú, a state-owned oil company in Peru, built an oil pipeline which leaked over one thousand, six hundred barrels of oil into the Loreto region (Malasky 2016). This impacted five nearby indigenous groups. The oil spill killed fish and other animals that the people depend on for their survival by contaminating the nearby river. Following the spill, numerous indigenous in the region became sick due to the contaminated water, since it was their only water source (Malasky 2016). It took six months for only one of the five indigenous groups to receive fresh food and water (Malasky 2016).

Other than pollution and contamination, the extractive industry can affect indigenous health in other ways. The Nahua, an Amazonian tribe mostly from Brazil, suffered several health implications from logging activities in their region (Wiist 2011). The tribe members came across nearby loggers who spread diseases like malaria, pneumonia, and parasitic infections. Some Nahua began working with the loggers, resulting in respiratory and diarrheal diseases which transferred to other members of the indigenous population. After the outbreak, infant mortality and malnutrition increased for the whole tribe in that region (Wiist 2011). For indigenous communities, with resource extraction comes a lower quality of life and severe health problems.

### ***The Current Brazilian Government's Role in the Plight of the Indigenous***

Another speculative danger to indigenous lives is Brazil's current government and its corruption. After the impeachment of the Brazilian president in 2016, Dilma Rousseff, Michel Temer was elected. Michel Temer focuses on economic development and recovering from the recession (Fifty Brazilian Civil Society Organizations 2017). Temer also has shown he has little interest in indigenous human rights. Michel Temer exemplifies the colonialist ideals still exist in Brazil's modern legal system. For example, Temer officially endorsed a legal policy that attempts to restrict federal agencies' ability to legally protect indigenous property rights in court (Fifty Brazilian Civil Society Organizations 2017). This policy would especially affect cases dealing with the removal of indigenous peoples from their lands, and it would compromise their right to legal consultation prior to hearings (Fifty Brazilian Civil Society Organizations 2017).

According to the *Report on Indigenous Situation in Brazil*, Michel Temer is proposing changes to promote the agricultural business interests of Brazil. The decree, proposed in December 2016, only gives the natives who were living on their land at the time of the Brazilian Constitution in 1988, entitlement to the land (Valente 2016). Therefore, indigenous peoples who were forced out of their lands, even violently, before 1988, do not have the right to claim their lands (Valente 2016). Cleber Buzatto, a member of the Indian Missionary Council, said about the new proposed decree, "The objective is clear, this decree would make more than eighty percent of the indigenous lands in the country unfeasible, about six hundred territories in the process of demarcation or claimed by the Indians" (Valente 2016, 1).

The "economic colonialism" Anderson (2003) describes as corporate initiatives that disrespect indigenous property rights continues to be prevalent in modern-day Brazil with violence and racism against indigenous populations. For example, President Michel Temer has implemented policies that will only escalate the violation of native rights (Fifty Brazilian Civil Society Organizations 2017). One of President Temer's these upcoming policy changes will alter the procedure of indigenous land demarcation to benefit Brazil's economic development, specifically agricultural interests. Temer plans to make all future demarcations go through the process of legalization which will elongate the process significantly (Redação 2017).

In 2017, there have already been several violent attacks against indigenous groups, like the massacre of the tribe members by gold miners in September (Darlington 2017). Another way racism is seen in Brazilian society is in the speeches made by current politicians. These speeches often rally against indigenous groups or their property rights

(Fifty Brazilian Organizations 2017, 3). It has become obvious that the current government, especially President Temer, aims to restrain the rights of indigenous communities. President Michel Temer continues to open the way for the continuation of illegal resource extraction on protected land (Fifty Brazilian Civil Society Organizations 2017). One way Temer has made illegal extraction easier is that he approved new measures that eliminated the necessity to take socio-environmental precautions into consideration before extracting resources which will have negative effects on indigenous lands (Fifty Brazilian Civil Society Organizations 2017).

### ***Establishing the Norms on the Rights of Indigenous Peoples***

Since Brazil's democratization, indigenous rights have expanded throughout the years since the 1980s (Tourneau 2015, 215). In the early 2000's in Brazil, indigenous organizations and other NGOs lobbied strongly for more land and human rights in response to Brazilian development projects threatening communities in the Amazon. Brazil went on to demarcate land for isolated indigenous tribes, but since then, the demarcations have not been strictly enforced. Therefore, indigenous tribes now have to fight for enforcement of their rights. Enforcing the rights of Amazonian tribes should lead to sustainability of their territory, but this is a difficult action to carry out (Tourneau 2015, 216).

For example, in the past year, the Brazilian government made public commitments to support FUNAI, the National Indian Foundation of Brazil, which establishes policies regarding indigenous rights, only to later disregard these commitments several months later (Fifty Brazilian Civil Society Organizations 2017).

The Security Suspension is a legal mechanism, dating back to Brazilian military rule, which makes it easy for the government to undermine indigenous property rights. The Security Suspension permits government officials to authorize any business venture, like resource extraction on indigenous demarcated lands, for the sole reason of national security (Fifty Brazilian Civil Society Organizations 2017).

Plummer (2015) writes of the territory allocated for the Yanomami tribe in Brazil. While, by law, they have their land demarcated, it is not enforced (Plummer 2015, 489). The Brazilian government has done little to fight off the mining companies and farmers who are trying to infringe upon their lands. While there are laws in place to protect indigenous populations and their rights, domestic laws can be ineffective due to insufficient enforcement, corruption or economic pressures (Jaksa 2006, 192). Plummer (2015) believes that land allocations are ignored because it conflicts with Brazil's economic development policies which focus on economic opportunities and not the preservation of indigenous lands.

After demarcating lands for indigenous tribes, the Brazilian government even put policies in place that completely contradict the demarcations. An example of a barrier to Brazilian enforcement of land demarcations is Executive Decree No. 1775 which President Cardoso put into place in 1996, due to pressures from economic investors. This decree allowed groups with economic interests to combat land demarcation (Anderson 2013, 981). This action essentially took back any property rights indigenous groups had gained. The decree specified "only fully demarcated indigenous areas are immune to challenge," but groups misinterpreted this and began to challenge any demarcation they felt necessary (Anderson 2013, 981).

### *Policy Prescriptions for the Protection of Indigenous Communities*

With all the different factors behind the decline of isolated indigenous populations in Brazil, the first step to solving the problem is to determine who is accountable for protecting these tribes, an issue that has received much debate. Armstrong (2016) states that preserving the world's tropical forests which act as carbon sinks can help stop climate change, but protecting the tropical forests has "opportunity costs" (107). An example of an opportunity cost would be how Brazil, who houses most of the Amazon forest, could lose economic benefits by keeping the forest and its inhabitants safe. Armstrong (2016) discusses ways to protect the world's tropical forests so that no countries lose economic development opportunities. One suggested solution is "The Principle of Fairness" which states outsiders should pay countries, like Brazil, to help offset the opportunity costs of protecting the Amazon and indigenous tribes (Armstrong 2016, 108).

Solinge (2010) has a similar view of accountability and thinks outside countries, specifically western countries, should assist Brazil monetarily or with foreign aid since Western countries consume much of the products that come out of the Amazon (275). In addition, Western countries tend to have large ecological footprints. Therefore, these countries should hold responsibility for the high levels of deforestation (Solinge 2010, 275).

Regarding all the issues surrounding indigenous rights, there are several authors that agree on possible solutions. Firstly, international law and tribunals should be used to create and enforce property rights, since domestic laws are often violated (Jaksa 2006,

192). Jaksa (2006) discusses not only governments are accountable for the destruction of the Amazon, but also transnational corporations (TNCs) (174). These corporations often ignore the property rights of indigenous tribes, while benefiting from resource extraction and inflicting disease, violence, pollution or simply a disruption of indigenous life (Jaksa 2006, 177). International tribunals should rectify any violations of property rights that occur (Jaksa 2006, 198). A specific example of a tribunal is the Inter-American Commission on Human Rights where constitutional rights for natives can be validated, and the government can be held accountable to keep resource extractors in check (479). An issue that Jaksa (2006) points out with this solution is the Inter-American Commission only has jurisdiction over state actors which does not include transnational corporations, making it difficult to hold TNC's accountable for their actions (174).

Secondly, government officials should be in contact with indigenous groups to ensure their needs are met and concerns voiced. This is a solution the current Brazilian government could benefit from. The President of the Body for Indigenous Issues has no experience dealing with native rights and has already approved many acts that negatively impact indigenous, using the excuse of economic development as a cover (Fifty Brazilian Civil Society Organizations 2017). Other essential jobs, like ones in FUNAI offices, are being held by individuals who have advocated against indigenous human rights in the past (Fifty Brazilian Civil Society Organizations 2017).

Another debate discussed in the literature is how countries should treat their uncontacted tribes. The governments of Peru, Colombia, and Brazil use a "leave them alone" strategy where governments only intervene if there is an emergency (Walker 2016, 7). One issue with this strategy is it assumes these ethnic groups can live and

persist without assistance in the modern world of escalating external threats and pressures. Examples of threats to indigenous tribes are effects of climate change like forest fires, the loss of resources through extraction activities, and conflicts with extractive companies and other tribes. Walker (2016) discusses a research study which shows that large declines in indigenous population is likely due to forest fires, insufficient resources, and conflicts with nearby tribes. This shows these tribes are in danger of extinction and are struggling to survive (Walker 2016, 2). If these isolated groups are indeed in an emergency situation, then this means the governments of Brazil, Colombia, and Peru should intervene to protect them before they become extinct.

Anne Ross (2011) writes that involving indigenous tribes in resource management creates more successful outcomes (36). This means Brazil could initiate mediation with the isolated tribes to include them in resource management all while helping to preserve them (Ross 2011, 9). Another way to sustain the isolated Amazonian tribes is to have a larger indigenous presence in the government to overcome the current government corruption (Fifty Brazilian Civil Society Organizations 2017). Jaksá (2006) also believes Amazonian communities should participate and have a say in the enforcement of their own human and property rights (198). There is not enough indigenous attendance in the government, and solving this could make a huge difference in the enforcement of demarcation laws.

Using the literature as a basis, this study attempts to fill the gaps and answer questions left by published works on the topic of indigenous sustainability in the Amazon. For instance, this paper answers how to carry out suggested prescriptions like political mobilization, market pressure, and enforcement by looking at specific examples

and solutions that have succeeded in other countries. The study also investigates how increased education, advocacy and support for indigenous issues can positively affect indigenous communities, along with how to implement these suggested prescriptions in and out of Brazil.

### **Theory**

This study approaches the topic of sustaining indigenous tribes in the Amazon by listing the causal mechanisms behind the decline of indigenous populations and prescribing solutions to these problems. The research focuses solely on Brazil because it is the country with the most isolated indigenous tribes in the world. Brazil needs a way to balance sustaining its indigenous communities with economic development. This study seeks to answer the question: How can Brazil protect and sustain isolated indigenous tribes in the Amazon without compromising its own economic development? Answering this question will establish the policies or solutions the Brazilian government should put in place or enforce to sustain its indigenous tribes. The roles that NGOs and international communities should play in the sustainability of indigenous tribes are explored through this question.

Numbers of tribes living in voluntary isolationism in Brazil has experienced a steep drop in the past century. These tribes are becoming endangered and are on their way to extinction because they are unable to sustain their lifestyles with the growing outside pressures of climate change, extraction activities and globalization. Not only are tribes declining, but the Amazon forest is disappearing which contributes to larger amounts of carbon dioxide in the air and global warming. If the factors inhibiting the

sustainability of isolated indigenous tribes continue, then the population of indigenous tribes will likely continue to decline which in turn contributes to the loss of culture and identity of the world's oldest societies.

There are many mechanisms that cause the rapid decline of isolated indigenous tribe populations. Theoretically, Brazil's economic model, largely based on resource extraction, is a main cause behind the loss of indigenous peoples. Brazil's economic growth depends on resource extraction activities like mining, farming, rubber pulling, and logging in the Amazon forest. This is because international demand for raw materials is increasing with pressure coming from outside countries, transnational corporations, and domestic corporations. Capitalism causes an ever-rising demand for resources to make products. This dependence on extraction makes it difficult for the government to decrease illegal extraction activity. A solution to the problem of Brazil's dependence on resource extraction would be for the government to employ a new economic model that includes sustainability in addition to economic development.

While changing a country's economic model is a long and complex process, it can be done. For example, the country of Bhutan did just this. In 1972, King Jigme Singye Wangchuck announced the happiness of the country was more important than Gross Domestic Product (GDP) (Kelly 2012). This notion shows that non-economic aspects of development are equally significant to economic growth. Gross National Happiness index (GNH) is a new approach to development that measures the physical, social and spiritual health of its people, along the health of the environment (Kelly 2012). While this index is useful for the citizens of Bhutan, it is beneficial to the government, businesses, and organizations as well. Since the start of GNH, life expectancy in Bhutan has doubled, the

country's infrastructure has improved significantly, and almost one hundred percent of primary school aged children are being educated (Kelly 2012). In addition to social strides in success, Bhutan has promised to keep at least sixty percent of its land under forest cover by banning logging exports. The country pledged to control its release of carbon dioxide by creating a monthly pedestrian day (Kelly 2012). Due to the success of the index so far, the United Nations is working on finding ways to implement the GNH model around the world. Like Bhutan, Brazil could improve the lives of its citizens, specifically its indigenous populations, by using GNP instead of GDP.

Deforestation and pollution are specific aspects of Brazil's economic model that affect the lives of Amazonian indigenous community. Deforestation decreases carbon dioxide in the air which exacerbates the effects of global warming. With the high rates of extraction in the Amazon, there have been increasing numbers of forest fires near indigenous territories, caused by climate change. Deforestation also endangers indigenous groups because extraction eliminates the resources needed to survive, and resource extraction can often force communities off their land. Pollution caused by extraction contaminates the air, water and land where indigenous communities live. The solution to deforestation and pollution would be to reverse the effects of climate change. Decreasing the emissions of carbon dioxide to decrease global warming a long process, but the Brazilian government can begin by creating more land demarcations and enforcing them. This would ensure no illegal resource extraction occurs in indigenous protected lands or nearby. Brazil should penalize extractors who venture into demarcated areas to take resources. Brazilian businesses could refuse to export or buy any products made with illegally extracted resources.

In addition to indigenous losing their land and resources, there are health problems that come along with invading demarcated lands. Diseases like malaria, pneumonia, and parasitic infections spread easily to indigenous communities because they have not built up immunity to fight off these infections. Interactions between extractors and indigenous populations in indigenous territories are one cause of the spread of diseases. As a solution, the literature review discusses the “leave them alone strategy”. This strategy is where countries don’t interact with isolated indigenous tribes unless a certain tribe appears to be in urgent danger. As we can see from the rapid decline of indigenous populations, the “leave them alone strategy” is not efficient enough to keep the isolated communities safe from disease. Therefore, the Brazilian government needs to do more than ignore its indigenous groups, and intervene to help sustain them. For the Delphi Method surveys, the initial expected outcome regarding policy intervention is:

*O1: If uncontacted tribes in the Brazilian Amazon continue to experience environmental degradation, disease, and forced removal, then their population will likely continue to decrease.*

Another mechanism of this study is the lack of government transformation towards indigenous rights. Despite the many efforts of FUNAI and NGOs that advocate for indigenous rights, the Brazilian government has failed to make any changes to improve the future of its indigenous communities in the Amazon. This is because many high-level political officials are not supporters of indigenous rights. There is a lack of indigenous representation in the government, making it an unlikely environment for

change. To resolve this, a bottom-up approach might work better than top-down efforts that are currently being made. Bottom-up actions begin at the community level, focusing on the needs of the target group, and work upwards to create policies (*Political Pipeline* 2013). However, a top-down implementation begins with objectives created at the top of the government hierarchy, by the highest officials. In summary, bottom-up actions are people-centered while top-down solutions are focused on the desired outcomes of the government, not the needs of the people (Political Pipeline 2013).

Examples of bottom-up efforts include more political engagement between political leaders and indigenous communities. Indigenous peoples should participate at every level during decisions that involve their land or rights. Political officials should make sure to reach out and include indigenous in decision making. Indigenous peoples themselves and their advocated should run for office to make up for the scarce amount of supporters in the government. With regard to bottom-up solutions, the second possible outcome for the consensus of the survey respondents is:

*O2: More indigenous involvement backed by civil society advocates for indigenous rights could potentially reduce violent acts against tribes.*

Land demarcations of indigenous territory are not entirely sufficient to protect these communities. Brazil has put many land demarcations in place, including in the Constitution of 1988, but these laws are ignored. Due to this, extractors, legal and illegal, are entering the demarcated land and taking its resources to make an economic profit. The lack of enforcement and illegal extraction both have a direct negative effect on

indigenous populations like the loss of indigenous resources, the spread of disease, pollution, and the forced removal from indigenous land, among other aspects. The government should enforce the land demarcations that are currently in place to protect indigenous territories. If the demarcations were enforced, then there would be no resource extraction occurring in or near indigenous land, decreasing the amount of interaction of indigenous tribes with the outside world. If Brazil continues to ignore illegal extraction in protected indigenous areas, then the international community needs to get involved.

*O3: If Brazil creates more land demarcations and enforces these borders, especially against resource extractors, then indigenous communities could likely have a greater chance of surviving.*

International tribunals like the Inter-American Human Rights Court can be used to pressure the Brazilian government to impose its demarcation laws. In addition to international tribunals, trade organizations, like the World Trade Organization could discourage illegal extraction by putting sanctions on the trading of resources that come from protected areas, specifically from the Amazon forest.

*O4: If Brazil continues to ignore its own demarcation land tenure laws, pressure from the international community holding Brazil accountable may prevent the further loss of indigenous populations.*

With these causal mechanisms in mind, indigenous tribes may not sustain themselves much longer without help from the Brazilian government, NGOs and powerful outside countries. This research design uses a modified version of the Delphi Method to validate these potential outcomes and policy interventions related to the question: How can Brazil sustain its isolated indigenous tribes without compromising its economic development? The survey is to validate explores the causal links laid out in this section while obtaining consensus between experts on how to best sustain Amazonian indigenous tribes in Brazil. The survey also tests to what extent there will be consensus opinions over any of these hypothesized processes and their proposed solutions. Additionally, the survey may identify possible hypothetical causal mechanisms not identified in the literature.

In summary, Brazil may assume these isolated indigenous groups can persist without help in the modern world of escalating external threats and pressures, but previous studies show that indigenous tribes are struggling to survive. Due to the rapid ongoing decline of these indigenous populations, there is increased urgency for Brazil to work on sustaining its Amazonian indigenous tribes, along with NGOs, the international community, and civil society.

### **Research Design**

To determine how Brazil can sustain its Amazonian indigenous tribes while also developing its economy, I conducted a modified version of the Delphi Method (Hsu, Sandford 2007)<sup>1</sup>. The Delphi Method is a technique of prediction that surveys a panel of

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<sup>1</sup> Study has received approval from Georgia Southern University's Institutional Review Board under tracking number H17407

experts in several rounds. My modification of the method aims to obtain consensus over policy prescriptions and not a prediction. The goal of the method is to eventually arrive at a consensus among the experts. There are several key characteristics of the Delphi Method that set it apart from other surveying methods. Participants, and in my case, anthropologists with experience in indigenous sustainability, commented on their own previous answers and the answers of others. After both rounds, the subjects received feedback with a summary of the entire group responses, and this allowed them to reassess their stances or critique the stances of others. All the participants remained anonymous throughout the entire process which lessened bias and increased authenticity of the answers. I, as the facilitator, controlled the flow of information between the experts to keep communication productive. A standard Delphi Method panel would continue with more rounds until the experts reach a consensus, but in my study, the number of rounds was kept at two.

The participants in the research included academic experts on indigenous tribes and sustainability, mostly composed of professors at academic institutions. There were no gender or age requirements, but all were professionals over the age of 18. There was a mix of experts from the United States and international experts coming from Colombia, and Brazil. I recruited the subjects by email. I found their email addresses by searching the American Anthropologist Association AnthroGuide, a database which allows you to find anthropologists based on their expertise. Emails were also found through snowballing of my personal academic network.

After I gathered a list of Anthropologists who specialized in indigenous tribes or sustainability, I studied their research interests and chose experts who would best

contribute to my research. I emailed around 50 experts and ended up having an expert panel of nine participants. The first round of the survey had a total of eight short answer questions which inquired on the best practices to sustain tribes living in the Amazon (See Appendix A). Round two contained three open-ended questions about the top consensuses from round one (See Appendix B). The goal of round two was to reach a final consensus on the best solutions to sustain indigenous tribes living in the Brazilian Amazon in the light of the government's interest to promote the country's economic development. For round two, the experts reviewed the four main consensuses and wrote explanations of whether they agreed or not, and why. After receiving consensuses from the board of experts, I compared their consensuses to the literature on the subject and my theoretical framework. For the purposes of the study, the participants are labeled A through I to keep anonymity.

### **Analysis**

The purpose of the Delphi method survey was to find consensuses between experts on indigenous sustainability on how to best sustain Amazonian indigenous tribes in Brazil. The survey answers this question: How can Brazil sustain isolated indigenous tribes in the Amazon without compromising its own economic development? This study is important because every indigenous group has their own culture that could disappear if isolated populations continue to go extinct. Indigenous groups in outside countries experience similar hardships as indigenous in Brazil. Therefore, this study can provide solutions that can improve the situations of indigenous tribes around the world. The results of the research study confirmed all the expected outcomes for the modified Delphi

Method on the consensuses reached by survey respondents. The four expected outcomes mention the factors hindering indigenous sustainability, civil society advocacy, land demarcations and enforcement, and pressure from the international community. These four aspects are all essential parts of the survey results and policy recommendations.

### ***Round One Results***

The duration of round one spanned from August 2017 to November 2017. In this round, the top consensus among the experts was that Brazil needs to create more land demarcations and enforce the policies already in place (see Appendix C). All nine participants agreed on this solution. The experts suggested that already existing land demarcations should be enforced and that Brazil should penalize illegal extraction activities and violent acts against indigenous groups. Participant I states:

*The first policy is to guarantee the demarcation of indigenous lands and carry out the full process of demarcation and recognition.*

Participant E answered:

*Brazil should respect existing indigenous tenure and try to amplify the boundaries of indigenous areas, thus protecting the forests.*

The second consensus was that Brazil should provide more education about indigenous peoples, their cultures, and their benefits to society, with a total of seven out of nine experts agreeing. Participant I explained:

*I think that the recognition of the importance and value and rights of indigenous people is an equally important message that comes from the government. I think there are very negative messages that the population, in general, receive when it comes to the rights, values, the importance, the knowledge of indigenous populations. And often you see now is a perpetuation of a negative image of indigenous populations which creates a negative image in the minds of the population and it feeds support for violence or for occupations of these lands and so forth.*

The final consensus made by experts was that outside countries should use international market pressure to encourage Brazil to enforce its policies. Seven out of the nine participants agreed. For instance, experts proposed this could be achieved by reducing the market incentives for illegally obtained products. As expressed by participant G:

*The international community (individual governments, the OAS, and the UN Office of Human Rights, and NGOs) should strongly encourage the Brazilian govt. to protect demarcated areas and territories inhabited by indigenous peoples and to maintain and enforce the Brazilian constitution and UN human and*

*indigenous rights norms. The international community should apply political and economic pressure (i.e. sanctions) on the Brazilian govt. when warranted.*

In addition to these three top consensuses on the best way to sustain indigenous tribes, there were several other smaller, but interesting consensuses that resulted from the surveys. For instance, there were three participants that agreed the idea of development should be recreated to include sustainability. Development and sustainability should coexist, instead of being separate entities. Another consensus made was that Brazil should invest in more equipment for monitoring protected areas. Monitoring could help decrease deforestation and illegal activities in demarcated lands. Finally, three participants agreed that the Brazilian government should make big changes in its representation to get rid of corruption.

### ***Round Two Results***

Round two began in January 2018 and lasted until March 2018. For round two, the participants were shown the top four consensuses from round one and were asked to agree or disagree with each of the consensuses, giving their reasoning and opinions (see Appendix D). The participants gave specifics on how to implement the solutions laid out in the consensuses from round one. Then the experts could give feedback on any prescriptions missing from the top four consensuses of round one. Participant A responded that part of the missing solution is the need for sustainable development in Brazil:

*I might add in my top group something that calls for alternative paths to sustainable development. For example, Payment for Environmental services could be used to pay Brazil to protect the lands and indigenous peoples. We might also promote alternative development policies like Agroecology, sustainable extractive industries, etc.*

This expert, participant A, suggested that Payments for Environmental Services (PES) could be used to entice Brazil to enforce its demarcations and protect its indigenous populations. PES are payments given to farmers who agree to manage their land sustainably (Barton 2013). The payments help farmers or landowners conserve more resources, decrease CO2 emissions, or using more sustainable agricultural techniques. These payment services could also help Amazonian farmers or resource extractors produce or extract sustainably.

Participant D suggested the areas of disagreement between participants should be studied, in addition to the areas of agreement, saying these areas could shed some light on the problem and its solutions. For example, one area that several participants did not completely agree on was the role of education in sustaining indigenous tribes. Some experts were adamant that education was necessary to decrease discrimination, violence while increasing indigenous rights. For instance:

*Regarding the third consensus, I would like to see more support (research grants from CNPq-National Commission on Research, for example) to encourage the training of Brazilian students at local universities in the disciplines of*

*anthropology, linguistics, and geography, for example, with the explicit goal of their doing research with indigenous peoples in Brazil. These research projects and the students would, hopefully, become part of a larger effort to educate the public about indigenous peoples and their cultures and rights in the local Brazilian context.*

However, another expert, participant E, argued more education wouldn't make a difference and that the problem that needed more attention was the ever-growing capitalistic demands for resources from the Amazon.

*Generally, I agree with the top four. The weakest of them, however, is the notion that education about indigenous people will translate into protection for them and the forest environment on which they depend and have been proven to protect. The problem is not ignorance; rather it is the effects of capitalism which demands increased production and a growing economy each quarter. This is not easy to correct for, as we have seen in the United States and elsewhere. If we in the U.S. cannot convince business to forego profits in the interest of protecting the environment, how can we expect business in foreign countries to do what we cannot?*

Some participants focused more on economic implementations while others concentrated on education, advocacy, and indigenous support. Finally, there were experts whose proposed solutions were more top-down prescriptions while some experts argued

that bottom-up actions would be more beneficial and have a greater impact. Participant H commented on top-down actions:

*These are fine suggestions, but they seem to be mostly top-down solutions. A better, more sustainable way would be to consult with communities about their needs, beliefs, goals, etc.*

All the responses from round two, from the open-ended answers to the areas of disagreement, suggest political solutions to the problem of sustaining indigenous tribes without negatively affecting Brazil's economic development.

### ***Discussion***

One implication of round one was the diversity of suggestions for possible solutions to balancing the decline of indigenous tribes in the Amazon with Brazil's economic development. This shows how complex of an issue this is and possibly gives light as to why Brazil has not been able to solve it.

Regarding the literature on the topic, there were themes that link the survey responses and the literature. For example, several survey respondents went into great detail about racism today in Brazil and how education could help solve violence and discrimination towards indigenous peoples. The experts described that educating and giving value to the issues of indigenous peoples while building a widespread respect for indigenous communities can help alleviate discrimination and possibly violence. Participants also stated that environmental education over living sustainably is an

important aspect of the solution. Like the survey participants, there were several authors like Jaksa (2006) and Anderson (2011) who also touched on the topics of racism and education by discussing the idea of modern colonialism. These authors agree there are still repercussions of colonialism in Brazil today which could contribute to the systematic violence and decline of indigenous populations. The authors suggest that increasing knowledge in civil society about indigenous groups and their rights can help combat systematic violence.

The fourth main consensus made in round one was that Brazil needs to establish more land demarcations. This prescription is an essential part of the literature review. For instance, the *Report on Indigenous Situation in Brazil* thoroughly discusses the subject of land demarcation in current day Brazil (2017). There are several proposed changes the new Brazilian president, Michel Temer, is putting forth that will hinder the process of land demarcations in favor of agricultural business interests. In short, the proposed decrees will make over eighty percent of the indigenous lands in the country unable to go through demarcation (Valente 2016). This issue needs to be overcome in order put more land demarcations in place for indigenous groups.

There were also connections of the survey answers, the literature review, and theory. One solution previously discussed, for instance, is using the Inter-American Court of Human Rights or international tribunals to pressure Brazil into enforcing current indigenous land tenures. There were several survey respondents who also expressed a need for international countries and organizations to put pressure on Brazil to follow through with land demarcations and protections of indigenous peoples. In addition, Jaksa

(2006) suggests the idea of holding international tribunals to create and enforce indigenous property rights because Brazil undermines many domestic laws.

The survey responses, the literature review and my expectations also intersected at the topic of involving more indigenous in advocacy organizations like FUNAI, Survival International and Grassroots International, along with Brazilian politics. Participant G said that to ensure the enforcement of indigenous rights, an indigenous group in the government is necessary. Another expert, participant H, claimed that Brazil and outside countries should only do business with or support companies and projects that have indigenous approval beforehand. The literature also portrays how dire indigenous involvement is today in Brazil. One example is the current *President of the Body for Indigenous Issues* has no experience working with indigenous populations, and so far, has already favored policies that deal with indigenous assimilation, all while using economic development as an excuse to do so (Fifty Brazilian Civil Society Organizations 2017). Indigenous players participating in every part of the government and its decisions regarding indigenous issues could be a solution to government corruption and unequal indigenous representation.

### ***Policy Recommendations and Challenges***

Since Brazil's current economic model depends largely on resource extraction that hinders the sustainability of indigenous tribes in the Amazon, the Brazilian government should implement a new model to include both development and sustainability. Therefore, the first suggested prescription is for Brazil to begin using the Gross National Happiness index (GNH), or a similar economic model tailored to the

needs of the country, instead of Gross Domestic Product. Comparatively, to GDP, the GNH approach will examine the physical, social and spiritual health of its people, and the environment.

Another aspect that could be integrated into a new Brazilian economic model is to ensure sustainability by making it economically beneficial. A way to do this is the practice of carbon emissions trading which is the exchange of credits that represent the amount of carbon released into the atmosphere between nations or transnational corporations. Each nation or company is allotted a specific amount of carbon to release, and nations can trade carbon credits to conserve levels of emissions. Another way that sustainability can become economically attractive to nations and companies is through giving out Payments for Environmental Services (PES). Payments could influence Brazil to enforce land demarcations, create more land tenures, and protect indigenous rights. Environmental payments could give incentives to farmers in the Amazon or resource extractors to be more sustainable by making it affordable. This program has worked in several countries, like Costa Rica, for instance. Costa Rica was the first country to implement PES in 1997. In the 1980's, Costa Rica had a forest cover of 20 percent, and partially due to PES, the forest cover is now up to 50 percent of the country (Barton 2013). This program is a basis for the success that other countries could also experience if they implement PES.

The Brazilian government needs to make reversing the effects of climate change a priority, especially changes focusing on the Amazon forest. This is because one of the causes of global warming, deforestation, eliminates the resources indigenous need to survive and often forces tribes off their land. Pollution, another cause of global warming,

contaminates the air, water and land where indigenous groups live. The government can reduce deforestation and pollution by creating land demarcations. Brazil should also enforce any demarcations that are in place. If demarcations are enforced, then no extraction would occur in protected land. In addition, Brazil should penalize any extractors who use demarcated areas for its resources. A possible implementation of this would be for the Brazilian government to put an export tariff on any products made with illegally extracted resources.

Another proposed solution is for the Brazilian government to enact bottom-up approaches rather than top-down solutions. An example of a failed top-down government solution occurred in July 2017, when the Brazilian Ministry of Justice didn't consider the needs of indigenous communities. The Ministry of Justice created a group of security officials with the intent of integrating the indigenous communities with the rest of society (Fifty Brazilian Civil Society Organizations 2017). This action was unsuccessful in that its impact was not equivalent with its original intent. The Ministry of Justice's intent was to positively integrate the tribes, but the indigenous population protested because its actual impact was cultural assimilation (Fifty Brazilian Civil Society Organizations 2017). The act violated the constitutional rights allowing indigenous to establish their own social organization (Fifty Brazilian Civil Society Organizations 2017). This infringement could have been avoided by communicating with indigenous communities on their true needs instead of their needs being assumed by the government.

Thus, to implement bottom-up efforts, political leaders in the Congress, court systems, and the executive branch should ensure more indigenous are invited to participate in government decisions that involve their own communities. The Brazilian

government and organizations need to consult personally with indigenous communities about their needs regarding land, resources, and rights. There should be more education from the government, advocacy groups, and school systems about the importance and value of indigenous peoples. The education should attempt to turn around the negative image of indigenous peoples that the government and parts of civil society hold.

Education should also focus on sustainable development, showing that the future of the country depends on the environment. Proper education for indigenous peoples themselves should also be ensured so that there can be more indigenous educators or leaders in the future. Lastly, Brazil and its indigenous support organizations like FUNAI, Survival International, and Grassroots International should provide bottom-up solutions to correct declining indigenous population in addition to any top-down prescriptions that are already in place.

Next, there should be increased inside and outside support for the environmental community and indigenous organizations. This is an issue today in Brazil because the government foundation that supports indigenous populations, FUNAI, has experienced large budget cuts resulting in the closing of several organization offices. These budget cuts are due to a lack of government support for FUNAI and indigenous rights in general. More funding is needed not only for FUNAI but for other organizations that strive to help indigenous populations or increase sustainability in the Amazon area. The more international and local support these organizations receive, the better they can improve the lives of indigenous peoples.

If Brazil neglects to implement any of the above suggested prescriptions, then the international community should put pressure on the government. This could be in the

Inter-American Court of Human Rights or international tribunals enforcing the policies already in place that protect indigenous rights and land. This solution has worked in other countries like in Paraguay, for instance. An example is the Case of the Sawhoyamaxa Indigenous Community v. Paraguay in March 2006. The Sawhoyamaxa community filled out an application to the Inter-American Court of Human Rights to petition that Paraguay had broken several articles of the constitution and restricted the community's freedoms. The court decided that Paraguay had violated the indigenous community's right to life, property, fair trial, and recognition as people (Inter-American Court of Human Rights, 2006). The decision resulted in Paraguay being told to compensate the victims for their legal actions, to create a community development fund for the Sawhoyamaxa, to deliver supplies to the community until their land has been restored to them, and to set up a communication system with the Sawhoyamaxa. With this case in mind, Brazilian indigenous communities and advocacy groups like Survival International should also take advantage of international tribunals or the Inter-American Court of Human Rights to request more rights and land demarcations for their communities.

Regarding international market pressures, outside countries and organizations like the United States, the EU or the WTO should use market pressure to persuade Brazil to develop its economy in a sustainable manner. This could consist of tariffs from the WTO on resources or products that come illegally from demarcated lands. It could also include fair trade labeling on products. This could reduce the economic incentives for products stemming from illegal extraction in the Amazon. Outside countries could sign a petition to only conduct business with companies that have indigenous approval beforehand. For instance, this could include companies that practice sustainable extraction and

development and companies that do not venture into any demarcated land to extract resources.

### ***Conclusion***

These four suggested prescriptions are the final results of the study. If both the international community and Brazil implement these four solutions, then the isolated indigenous population in the Amazon should reverse its current decline, hopefully preserving their culture and identity. For the future of this research, the next step would be to test these four solutions and their success through more extensive case studies of other countries that hold large indigenous populations like Mexico, Perú, Guatemala, or Ecuador. This would put the consensus of the experts to the test by finding evidence of success while decreasing any bias there might have been. If these four proposed prescriptions were successful in other countries, then the solutions can be generalized to help sustain other indigenous populations in nations around the world, not just Brazil.

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## Appendix

## A. Round 1 Survey:

Instructions: The purpose of my research project is to ascertain the best policies that could contribute towards the sustainability of indigenous tribes in the Brazilian Amazon in light of the government's interest to promote the country's economic development.

1. There are 7 open ended questions and 1 multiple choice question to answer.
2. Once all 8 questions are answered thoroughly, click the button at the bottom right of the survey, and it will be submitted.
3. After all of the responses are received and analyzed for Round 1, the facilitator will send out the survey for Round 2.

**Q1** Please provide your name, title, and the name of your institution.

**Q2** What policies can the Brazilian government put in place to balance both indigenous survival and economic development in the Amazon?

**Q3** What is the best way to ensure that indigenous rights and land allocations are enforced by the Brazilian Government?

**Q4** What role should Brazilian civil society play in the preservation of indigenous communities in the Amazon?

**Q5** What should the role of the international community (especially Western or wealthy countries) be in the preservation of indigenous Amazonian communities?

**Q6** There are still several indigenous communities that remain isolated and maintain their traditional practices. How should the Brazilian government act in order to protect these

isolated communities? For those communities that have not been contacted, how should the Brazilian government (i.e. the government agency FUNAI) go about making first contact with these groups, if at all?

**Q7** In the final report, do you want your responses to remain anonymous, or would you prefer your name associated with your answers?

- A. Please keep my answers confidential by not publishing my name.
- B. Please cite my name with the answers I provide.

**Q8** Do you have any additional comments or suggestions?

#### B. Round 2 Survey:

The purpose of my research project is to ascertain the best policies that could contribute towards the sustainability of indigenous tribes living in the Brazilian Amazon in light of the government's interest to promote the country's economic development.

#### Instructions

1. The following are summaries of the top four policy suggestions made by nine experts on indigenous sustainability gathered from Round One.
2. There are three open-ended questions pertaining your thoughts about these most commonly mentioned suggestions.
3. Once you have provided your answers, click the button at the bottom right of the survey, and it will be submitted.
4. If you would like to see all of the specific quotes for the top four consensuses, click

here.

Thank you for your participation!

**Q1** Please provide your name, title, and the name of your institution.

<b>Consensus</b>	<b>Description</b>	<b># of experts # of times mentioned</b>
Brazil should enforce the policies that are already in place	-Enforcing land demarcations -Penalizing illegal activities and violent acts	9/9 experts 15 times
Brazil should create more land rights	-Demarcate more land for indigenous populations	8/9 experts 9 times
Brazil should provide more education about indigenous peoples, their culture and their benefits to society	-Education on indigenous rights -Recognition of indigenous value to society	7/9 experts 11 times
Outside countries should use international market pressure to encourage Brazil to enforce its policies	-Reduce incentives for illegal products -International countries should hold Brazil accountable	7/9 experts 11 times

**Q2** Do you agree or disagree with the above top four consensuses? Why or why not?

**Q3** Could you provide any more specifics about how best to implement the suggested policies above?

**Q4** Do you have any additional comments or suggestions?

**Q5** Would you like me to send you a copy of my final report?

#### C. Round 1 Results Summary

<b>Consensus</b>	<b>Description</b>	<b># of experts # of times mentioned</b>
Brazil should create more land rights, enforce the policies already in place	-Enforcing land demarcations -Penalizing illegal activities and violent acts	9/9 experts 24 times
Brazil should provide more education about indigenous peoples, their culture and their benefits to society	-Education on indigenous rights -Recognition of indigenous value to society	7/9 experts 11 times
Outside countries should use international market pressure to encourage Brazil to enforce its policies	-Reduce incentives for illegal products -International countries should hold Brazil accountable	7/9 experts 11 times

#### D. Round 2 Results Summary

<b>Consensus Policy Prescription</b>	<b>How to Put in Place</b>
-International community should put pressure on Brazil to enforce the policies already in place that protect indigenous rights and land	-Inter American Court of Human Rights -International Tribunals -More land demarcations

<p>-There should be more Brazilian advocacy for indigenous rights</p>	<p>-More indigenous involvement in Government decisions -Consulting with indigenous communities about their needs -Bottom-up approach -More indigenous education</p>
<p>-International community should use market pressure to encourage Brazilian sustainable development</p>	<p>-Reduce incentives for illegal products -Carbon trading -Make sustainability economically beneficial</p>
<p>-More inside and outside support for environmental community and indigenous organizations</p>	<p>-More funding for FUNAI and similar organizations</p>