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Deforestation: More Than the Environment

At this precise moment, sturdy organisms are standing tall all over the world. These magnificent creatures selflessly provide oxygen, shade, food, lumber and shelter, while asking nothing in return. These organisms are called trees. They usually live in varying sized groups called forests and can be found in almost every region of the world. Because of their selfless, vulnerable nature, the tree population of the world is currently, and has been, facing a serious plight. That issue is called deforestation and it is running rampant in all forests, but has especially honed in on tropical forests in more recent times.

Deforestation is "...the removal of forest cover naturally or by human activities. It may occur abruptly when the forest is cleared for agricultural production, urban development or more gradually as a result of unsustainable logging practices. It as well includes removal of shrubs, lanes, grasses and other plants from tree covers" (Awe et al. 18). As one should be able to deduce from the definition, deforestation has multiple negative effects on the environment. These include "species extinctions, soil degradation, declining biological diversity, and the alterations in regional and global climates" (Mitten 549). Because of these results, deforestation has recently become a pressing issue for many scientists and environmentalists.

Besides the environmental aspect, deforestation has another less recognized dynamic. Deforestation "...has environmental consequences, which impinge directly on the lives of poor rural people" (Awe et al. 18). The predicament that these indigenous peoples, who rely on or live

in the forest, are facing is completely connected to the ways deforestation is negatively affecting the environment. This isn't an issue about a small, isolated tribe of one hundred people. Instead, "...tropical forest areas...are home to more than 1.2 billion people..." (Meijaard et al. 1). These native forest-dwelling people are facing the eradication of their traditional homeland and are grappling with the negative consequences that result from it.

This problem facing the environment and the tropical rain forests' indigenous people is not something that has been occurring only in the modern age. For as long as people have needed wood for various reasons and space to grow crops, farm or build up towns and villages, deforestation has been present. The encroachment on the forest was primarily happening in Europe and the Middle East centuries ago. As humankind progressed and populations increased, the deforestation increased as well to keep up with the demand for wood and space. Once people began exploring and traveling to new places, deforestation popped up in those societies as well. Deforestation has only increased as humankind has moved into the current industrial age. With the end of most of the deforestation in North America in the 1920s, the focus has been switched to tropical rain forests such as the ones in Central and South America and Indonesia. These tropical locales were discovered to be rich in resources and so began in the mid-twentieth century the extensive amounts of deforestation that we see today.

While the causes of deforestation in the distant past were usually based on needs, the trend in this modern era has turned a very different direction. While the need for resources is still a large factor, now the over-arching, main drive of deforestation is more often money. The battle to gain more money than other individuals, companies and countries rages on even if that means causing harm to the native peoples of the forests. For example, for multiple South American countries and the island of Borneo, the governments are in favor of the deforesting practices for

the revenue it creates. Andrea Zhouri states that "...one can observe a shift from the discussion concerning *rights of citizenship* to a discussion about *economic interests*, in which indigenous territories are transformed into areas of capitalist exploitation with the consequent perpetuation of social, ethnic, and environmental injustice" (255). It is much less about people or needs and more about the money. The search for money in endeavors such as mining, logging and ranching is propelling the deforestation.

Money is contributing to the rush to mine for gold and other metals in many areas of the world including South America. This is driving uneducated, unskilled miners to head to the forests to look for gold. Large swaths of tropical rain forest are also being cut down to accommodate the companies' large mines. For example, the authors of "Gold Mining in the Peruvian Amazon: Global Prices, Deforestation, and Mercury Imports" write of the gold mining occurring in the Peruvian Amazon. "The price continues to set new records, rising to over \$1400/oz at the time of this article's publication. As a response, nonindustrial informal gold mining has risen in developing countries along with grave environmental and health consequences" (Swenson et al. 1). These unskilled, informal miners are looking for gold because it is a very profitable resource. The unskilled miners and moneyed mining companies combine to pillage the forests in search of gold for profit.

Besides mining, ranching is another important cause of deforestation. In some countries, "...forest clearance results more from pasture development. Cattle cooperatives, for example, are often launched by a handful of proprietors who have large landholdings and who want to supply beef for domestic use and for export to the pet and fast-food industries in developed nations" (Mitten 549). These people are looking to make use of the deforested land and earn money without thinking of the consequences for the environment or for the people. Richard Reed gives

an example of this happening in Paraguay: “Soon the settlers began to fell the forest, creating fields for cotton, soybeans, and pasture....Where once the land had been home for game, it now provided for cattle. Herds often clogged the roads, competing with trucks hauling cotton to market and busses loaded with new colonists. Settlers fenced in the fields and cut lanes through the remaining forest to mark off portions that would be private property (off-limits to Indians)” (130). Although it is hard to fault people for wanting to have cultivated fields and cattle, ranching is another example of how the pursuit of money is driving the deforestation.

In addition to ranching, logging is also a cause of deforestation. This cause stems from both the need for wood and the revenue the companies make.

[T]he timber industry causes considerable tropical deforestation in some countries. As with the deforestation caused by pasture and cattle ranching, strong monetary incentives motivate the timber industry. But the problems go well beyond simply extracting trees and destroying forests. Even when loggers take only a few commercially valuable trees per acre and leave the soil system intact, devastating effects nevertheless may still occur. In merely building the roads to give access to the valuable trees, loggers may destroy large chunks of the forest canopy. Unfortunately, global demands help fuel the timber industry's continued destruction of the forests. (549)

In a world hungry for the products the timber industry provides, those companies are motivated to continue harvesting the trees because of the money people around the world are willing to pay.

These three causes—mining, ranching and logging—drive most of the deforestation of tropical rain forests and other forested regions and result in many negative consequences for the environment which, in turn, adversely affect the populations of the native people who rely on or

live in the forest. There are numerous undesirable results affecting the indigenous people including poverty, disease, loss of the indigenous people's knowledge of the environment and perpetuation of forest degradation.

Poverty is one of the major negative consequences of deforestation. Indigenous people of any of the tropical forests in the world are considered poor because of their lack of material wealth and modern amenities; however, these native peoples have not only survived in the forest, but thrived. Because of their extensive knowledge about the forests where they reside, they have been able to sufficiently provide for themselves for centuries. When the forest—the center for the natives' way of life—is destroyed, they become the poorest of the poor in society. Lauren Mitten gives an example of the deforestation affecting the Mayan Indians of South America: “Extreme poverty and landlessness have forced them to work as sharecroppers and day laborers. Many live in the mountains where they now struggle to grow cash crops to pay for basic needs they used to be able to provide for themselves.... Their poverty and landlessness have forced them into rundown, squalid shanties in the cities” (549). Because the forest is unable to support them, the people have to turn to other sources to survive, and these other sources provide much less for them than the forest did. Anthropologist Richard Reed gives an example of the Guarani Indians of Paraguay: “Indian communities are destroyed by poverty and disease, and the members who remain join the legions of poor laborers who form the lowest class of the national society. In short, the Guarani lose their ability to survive as an independent ethnic group” (130). Similar to the Mayan Indians, the Guarani are poorer because of the deforestation and are becoming dependent on the people who developed their land. Poverty is a very serious consequence of deforestation that is negatively and drastically changing the lives of indigenous, forest-dwelling people.

Similar to poverty, the subjection of the people to diseases is another result of forest development that is harmful to the inhabitants of tropical forests around the world. Indigenous peoples who live in and rely on forests have been relatively secluded from outsiders for many years. The bodies of these people have not needed to build up immunity to diseases against which those in the western world have built up immunity. Once outsiders penetrate the forest and come in contact with the natives, the forest dwellers are very susceptible to disease. An example of this is the Yanomami Indians who live in the Amazon. “Since gold was first found in Roraima [a Brazilian state] in 1987, there has been a flood of thousands of *garimpeiros* (gold diggers) into the Yanomamis’ territory. The “contact” with *garimpeiros* has been a complete disaster for the Yanomamis. There has been a severe decline in their population due to the establishment of new diseases—such as the flu and malaria...” (Zhouri 259-260). In addition to contagious diseases and because of the deforestation, they are susceptible to other diseases as well such as “...malnutrition and other related diseases” (Zhouri 260) as well as other diseases resulting from pollution such as mercury poisoning that is a byproduct of the gold mining. Diseases are a very severe and devastating consequence of deforestation.

In addition to disease, deforestation also results in the loss of vast knowledge of the forest that the native people have acquired. “Investigations by ethnobotanists and anthropologists have revealed that indigenous people have been manipulating natural vegetation for several millennia, often in what are widely perceived in the west as ‘pristine’ forests” (Donovan and Puri 1). Tropical forests have been inhabited by people for thousands of years, and during that time they have come to know precisely how to live in the forest without extinguishing any one particular resource. For example, the Kayapo Indians of the Amazon are hunter-gatherer-horticulturalists. They have discovered how to not over-hunt, over-gather or over-garden. The application

knowledge lets the forest replenish itself and allows the Indians to continue living there (Turner). With the deforestation that is occurring, the indigenous peoples are being forced to change their subsistence strategies. Because their culture and way of life revolve around the subsistence strategies within the forests, once the forests are depleted, the knowledge of the resources of the forest and sustainable development practices will not be passed down to younger generations and the world will lose that knowledge. The loss of the important knowledge of the forest's resources is an unfortunate and negative consequence of forest development.

As well as losing the indigenous people's knowledge, another serious result of deforestation is the perpetuation of forest degradation. Once individuals or companies begin deforesting an area, it begins a chain reaction that perpetuates both the environmental and social problems associated with deforestation. Philip Fearnside states: "Infrastructure development unleashes an insidious chain of investment and profiteering that can be expected to destroy more forest.... Logging roads...precede and accompany highways, opening up frontiers for investing timber profits in soybean plantations and cattle ranches. Timber extraction increases the forest's flammability, leading to understory fires that set in motion a vicious cycle of tree mortality, increasing fuel loads, reentry of fire, and eventually total destruction of the forest" (682). While the forests of the world have not reached the point of ultimate forest destruction, they are experiencing this cycle. An example of this concept is that as deforestation began to occur in the territory of the Guarani of the Amazon, they had to change their main subsistence strategy from hunting and gathering to agriculture. However, the forest could not support the Guarani's farming. The nutrients in the soil quickly became depleted which required the Guarani to clear new plots and the process continued (Reed). This same problem affected the non-indigenous

settlers who came to grow crops on the newly cleared forest land. This negative perpetuation of development and destruction will continue to negatively affect the environment and the indigenous people until either the complete destruction of the forests or something is done to curb the deforestation.

To combat this environmental and social dilemma, the approach must be multi-pronged. There needs to be more media coverage in both the first and third world countries about the causes and effects of deforestation. The media could be a very powerful tool for spreading information. If people were aware, perhaps they could focus their resources and time to make changes. It's important that there are laws passed in first world and third world countries that make it advantageous for people to become involved in helping to reduce deforestation. There must be financial advantages in the form of tax breaks for reforestation and there should be penalties for exporting and importing non-renewable forest products. Having these financial benefits and repercussions along with the raised awareness from the media coverage, should help gain the support of organizations, companies, politicians and other important people to then work on solving the deforestation issue with their resources and influence. This proposed approach would be the best solution because a one part solution wouldn't be effective; the influence of people of importance would make it unpopular to negatively impact the environment and would help create more effective laws and regulation methods; the influential people and organizations could provide the money and resources to fight or reverse the deforestation.

This proposed solution would be most effective because a one-part solution simply would not be effective. The problem of deforestation and the effects it has on the native forest peoples and environment are too complex to be solved with one thing such as only making laws or only reforesting. For example, efforts in Brazil to implement deforestation regulation methods have

not been particularly successful. “The first major effort to repress deforestation was in 1989 under the Our Nature (*Nossa Natureza*) program. Since then a series of crackdowns has been unsuccessful. Clearing rates in the region seem to rise and fall independent of these programs” (Fearnside 684). The regulation methods could not solve or handle every aspect of the issue. Another example can be found with the idea of only reforesting. It takes “about 25 years for reforestation to render it ready for reuse” (Tuner 387-388). This means that implementing only reforesting couldn’t keep up with the companies who answer the high demands of people wanting forest resources. A one part solution wouldn’t be practical.

In addition to a one-part solution not being realistic, the proposed solution is the best way to go about resolving the issue because the organizations, companies and politicians could provide the influence to assist in fixing the problem. With the support of important people or organizations behind a movement, much can be accomplished. These individuals have the influence to make it unpopular to deforest and to lobby and create laws to make it more difficult to deforest. For example, the Penan, a group of indigenous people of the tropical island of Borneo, have been facing deforestation by extensive logging and by development of plantations backed by the government of Sarawak, Malaysia. The Penan have struggled to fight the government by themselves. While they do have some groups taking note of the Penan’s plight, if this group of people had more influential organizations and people behind their cause, the government would be pressured to stop its current practices of backing the deforestation because it would be unpopular for them to continue to endorse deforestation. A successful example is the Kayapo Indians of the Brazilian Amazon. They have faced deforestation problems since the 1960s. After trying to reason with the government themselves and not being very successful, this ethnic group took it upon themselves to gain attention through violence, protesting and the

media. This rewarded them with the influence of "...important organizations, scientific specialists, and politicians..." (Turner 400). These people helped influence the government to recognize the Kayapo Indians' rights to their land and create better, more beneficial laws.

Another aspect that makes this solution path the most effective is that the influential people would have the money and resources to fight and reverse the deforestation. The situation lends itself well to the phrase: "It's not what you know, it's who you know." In this case, it is who you know who also has money. Money is a very powerful motivator in today's world and it can be the catalyst for change. With money in the hands of the powerful who are on the side of the indigenous people, processes such as reforestation and educating about sustainable development could take place (Reed). It takes money to get the trees and man-power to augment the tropical forest's natural reforesting and it would also require money to begin a system to teach settlers and possibly even companies about the environmental benefits and especially teach the social benefits of sustainable development.

While changing the current attitudes of deforestation has many benefits, continuing on the same path also has benefits that are appealing to some indigenous people. Deforestation and development benefit the indigenous people by giving them resources they did not previously have. It provides modern products and conveniences that they could not access before. For example, a study was conducted to assess the attitude of the Penan's toward the deforestation and development occurring on Borneo. Many Penans were in favor of the development that improved their housing and provided education for their children, paved roads, electricity and more adequate health services (Selvadurai et al. 75). These things would make life easier; however, in the long run, it would be more beneficial to the environment and people to stop the deforestation and development. It is definitely more beneficial to keep the forests pristine for the sake of the

environment, such as air and water quality, carbon sequestration, global warming, biodiversity, etc. The environment then directly impacts the native people. If indigenous people want development, they can go somewhere that has the modern amenities. The individuals who are against development and deforestation should be able to stay in the place their people have lived for many years. The short term benefits do not outweigh the long term benefits for this issue.

Besides making an argument for the short term benefits of deforestation, others might make the argument that there are many more important or more serious problems currently plaguing the world. The earth is dealing with dilemmas such as: nuclear weapon threats, natural disasters, countries in turmoil, cancer and other incurable diseases, and many others that could be considered more important than deforestation. While this is a valid argument, deforestation and the detriment to the people who rely on the forest are a serious global issues. Even if one is not impressed with maintaining the tropical forests of the world, the way of life and human rights of the people who live in those tropical forests are an important issue.

In conclusion, deforestation is an issue that has been around for centuries and has gradually increased in magnitude. Although it has not been a focus of deforestation studies until recently, the indigenous people who live in the forests are negatively impacted by the environmental destruction. They are suffering from poverty, disease, a loss of their knowledge of the environment, and the perpetuation of environmental degradation that is destroying their culture and way of life. “[I]ndigenous forest-dwelling peoples are not just a passive part of the problem, but an active part of the solution...forest peoples, no matter how apparently primitive, remote, or numerically insignificant, can become potent combatants and allies in the struggle to avert ecological disaster” (Turner 400). Through gaining the support of people and organizations

in positions of power, the land of native people around the world can become reforested and protected and the rest of humankind can enjoy the benefits of tropical forests as well.

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