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Discussion 1D

Deforestation in South America

Tropical rainforests, specifically the Amazon Rainforest, are responsible for providing our planet with water, wood, and clean air. The Amazon Rainforest alone is responsible for providing the earth with forty percent of its clean air. The human race is dependent on the Amazon Rainforest to provide resources that are crucial to its survival, and by destroying the Amazon Rainforests mankind is inevitably destroying themselves. Certain companies that harvest and use large amounts of wood are destroying the Amazon Rainforest with little regard to the environment or the human race. With one and a half acres of forest being chopped down every second, we are running the risk of destroying all of the Amazon Rainforest within the next forty years (Rainforest-Alliance.org, accessed 2019). The destruction of the Amazon is mainly due to the high demand for wood that is used to build homes and help develop new urban areas across the globe. Many individuals are also destroying small portions of the Amazon Rainforest to develop personal farmland. Destroying the Amazon will eventually lead to the loss of a large amount of world’s food and oxygen supplies. Which will not only make food more expensive but the lack of clean air could lead to large scale health problems for the population of the world. To ensure the preservation of the Amazon Rainforest, it is crucial to look for solutions that will not only protect the rainforest from further destruction but also restore the damage that has already been done. There are many countries and private organizations that have taken action to prevent deforestation. Some countries even have total bans on deforestation, while certain private organizations have made pledges to plant two trees for every tree they cut. While there may be many seemingly perfect solutions to the problem of deforestation in the Amazon, solving the deforestation crisis is a much deeper and complicated issue that requires thoughtful and diligent execution. To save the Amazon Rainforest it is important to look for more impactful solutions that will not only end the constant destruction of the Amazon but that will rebuild that damage that has already been done.

The *Tragedy of the Commons* indirectly gives insight into why deforestation exists and some possible solutions that could potentially prevent all the trees on earth from being destroyed. The terms that Hardin uses in *Tragedy of the Commons* can be used to help further understand and solve the issue of deforestation. Hardin describes the commons to be a limited resource that is shared among a group of people and is freely accessible. In the *Tragedy of the Commons*,Hardin says that people’s behavior is self-interested and is based on a cost-benefit analysis where people determine if the benefit of an action is worth the cost of that same action (Hardin, 1986). People very often fail to consider the cost that a particular action has on others, especially if they will benefit greatly from whatever it is that they are doing. This means that an individual’s interests may conflict with the interests of the society as a whole to preserve the commons. The tragedy of the commons could be described as the destruction of the commons due to the individual’s own interest and disregard for the cost their action has on the depletion of the commons. Hardin claims that some of these issues do not come with a technical solution, such as overpopulation, and any true solution to this tragedy is to reduce the population which is unethical and should not be done. Hardin does claim that non-technical solutions work to help preserve a common, but these non technical solutions are not permanent. Furthermore, Hardin claims that one of the only ways to preserve the commons is through mutual coercion through laws that are developed to preserve a particular shared resource (Hardin, 1968).

Hardin describes the tragedy of the commons to be a major loss of a particular shared resource due to overpopulation and self-interested behavior (Hardin, 1968). The deforestation of the Amazon Rainforest is quickly becoming a global tragedy due the actions of self-interested individuals. The Amazon rainforest is responsible for absorbing twenty percent of the world’s carbon dioxide. In the past forty years, twenty percent of the Amazon has been razed and we are at risk for destroying another twenty percent which would drastically change the environment of not only South America but also the world (Rainforest-Alliance.org, accessed April 15). South America’s economy almost incentivizes its citizens to destroy trees for their own personal gain. Through “slash-and-burn agriculture” many of South America’s citizens can create their own farms which is a common form of survival for many people (TheGuardian.com, accessed April 15). In 2012, Brazil, which is where the majority of the Amazon Rainforest resides, passed a law giving amnesty to people who have for people that have committed deforestation on small pieces of land in the Amazon Rainforest (Reuters, March 2018). While this helps to ensure that Brazil’s impoverished citizens are still given the chance to continue with their lives after committing the crime of deforestation, it incentivizes people to continue to destroy trees for their own personal interest. While Brazil and other South American countries have laws in place that prevent deforestation in certain areas of the rainforest, these laws are not strict enough to ensure that the majority of trees are preserved.

Hardin claims that not all problems come with a technical solution, which he defines as a solution that “requires a change only in the techniques of the natural sciences” (Hardin, 1968). The deforestation of the Amazon is no different, in order to potentially stop the deforestation crisis, employing non-technical solutions may be one of the few remaining actions left in order to preserve the Amazon. A potentially effective non-technical solution would be to require people cutting down trees to plant a certain number of trees for every tree that is cut down. Certain American states, such as Oregon, have already implemented laws that ensure landowners plant two-hundred trees for every acre of trees cut down (CGA.ct.gov, 2002). While this solution may not be in the best interest of Amazonian deforestation companies, it would ensure that the Amazon Rainforest would be given the chance to slowly regenerate over time. Even individuals cutting down trees for farmland would have little to no impact if the companies that remove the majority of trees in the Amazon planted more trees than they destroyed. While this seems like a good solution, having a government oversee how many trees are planted could be nearly impossible in practice. Hardin also mentions that some problems that have no technical solution “require a change in human values or ideas or morality” (Hardin, 1968). In the case of deforestation, there may be no solution other than having people realize that continued removal of trees and the destruction of the rainforest will lead to serious environmental and climate changes that will drastically change many people’s way of life.

The commons in the case of deforestation of the Amazon Rainforest, according to Hardin, are the trees. This is defined as a source-type common because the resources are being depleted to help develop and improve and progress society. Trees help support the human race by providing oxygen, clean air, food, and homes to the people of the world. Furthermore, the destruction of the Amazon Rainforest would lead to an increase in temperature, extinction of species, and increase in the cost of foods and herbs (TheGuardian.com, accessed April 15). Therefore, the preservation of trees in the Amazon trees is the collective interest of South America and the world.

The Amazon provides the world with so much, it might make some people ask why others are cutting it down. This all ties back into Hardin’s definition of the self-interested individual. Hardin defines self-interested individuals as “an individual who intends only his own gain” (Hardin 1968). In order to find a solution that can appeal to everyone it is first critical to examine the benefit that cutting down trees has for the individuals that are destroying the Amazon. The deforestation of the amazon is a 600 billion dollar industry that employs more than 13.2 million people (World Bank, 2016). While stopping deforestation has the potential to develop millions of jobs through potential replant programs, the individuals that are currently occupying the Amazon are provided with little to no incentive to leave (NRDC, 2019). The companies cutting down the Amazon are only interested in generating profits and they have little regard for the environmental impact their actions have. In order to have these companies change their deforestation practices, it is important to look for a solution that will appeal to these companies as well as the general population.

After having taken a look at the interests of the organizations that are destroying the amazon, the next step in developing a long lasting solution to preserve the Amazon is to pass legislation that appeals to both the general population and to the companies. Hardin describes this passing of such legislation as mutual coercion, which is coercion that the majority of people can agree is helpful (Hardin, 1968). Mutual coercion in the case of Amazonian deforestation starts with recognizing that the number of trees being removed needs to be reduced, but that these companies and their employees still need to make a living. Passing legislation that states that companies that cut down trees need to replant three times the number of trees they cut or face high taxes. This will ensure that the Amazon can be rebuilt and that companies can continue to gather lumber. Companies faced with this new legislation will be presented with an option, either cut down the trees and lose money to taxes or replant trees and save the environment. Many companies will see that planting trees is a much more economically appealing option than paying more in taxes. This relates back to Hardin’s definition of the self-interested individual. Increasing the cost of cutting down trees will have companies recompute their cost-benefit analysis and may decrease the number of trees that are cut down or even increase the number of trees that are. There are already a few American states that have these tree planting laws in place, and they are very effective. South American countries are not as interested in passing this type of legislation because they believe that it will negatively impact their economy (Brahic, 2019). In some sense, they are correct because companies could simply move to a location where there is no restriction on cutting down trees (CulturalSurvival.org, 2019). However, the number of locations left to collect lumber is drastically decreasing as more and more nations develop laws to stop deforestation (CulturalSurvival.org, 2019). Therefore, many of these companies may be left with no choice other than to replant trees or face high fines. This solution both helps rebuild the Amazon and gives companies the chance to continue making a profit.

There are a number of solutions to stop the deforestation of the Amazon and slowly rebuild it over time, but it is important to look at how long these solutions will last and the impact that they will have. Hardin claims that no technical solution will last forever (Hardin, 1968). A particular solution could last for a very long time given the number of trees in the Amazon and the strict regulations on deforestation currently implemented in more developed countries (IllegalLogging.info, 2019). Some of these solutions could even incentivize people that had previously cut down trees to build farms to plant new trees for money in return, which is a strong appeal to individual interest. The laws that they passed in 2012 giving amnesty to people cutting down trees could also have been modified to only give amnesty to those who agree to replant a certain number of trees. There a number of ways to rebuild the Amazon Rainforest, and they all start with incentivizing planting new trees and discouraging cutting down trees. Figuring out how to strive towards preserving the community interest while appealing to the individual interest is the best chance of saving the Amazon Rainforest.

In conclusion, South America is presented with a number of different ways to rebuild the Amazon and stop the deforestation of it. Achieving mutual-coercion by passing legislation to discourage the cutting down of trees is one of the most important steps. If organizations and individuals were faced with harsher punishments for cutting down trees, such as increased jail time or heavy fines, they would be forced to reassess their own self-interested actions, and the number of people cutting down trees will decrease. As another form of appeal to individual interest, the government of South American countries can pass legislation that will give people an incentive to plant more trees, which would decrease the number of individuals illegally cutting down trees in the Amazon Rainforest. This could be a cash incentive for individuals or an exemption from fines for larger companies. Making sure that people are planting more trees is the only way to rebuild the parts of the forests that have already been destroyed. While none of these solutions will happen overnight, over time the countries of South America can pass laws that will help stop deforestation and slowly rebuild the Amazon. According to Hardin, the tragedy is that “each man is locked into a system that compels him to increase his herd without limit--in a world that is limited” (Hardin 1968). The destruction of all trees in the Amazon Rainforest would be considered a true tragedy in the eyes of Hardin and an even greater tragedy in the eyes of the world.