

Daria Dubovskaia  
10/26/2020  
ENG 1121  
Writing Assignment  
Word count: 2005

### **Deforestation in Brazil and Russia. Is extreme logging the local problem?**

**Introduction:** The problem of deforestation caught my eye when I became aware of the egregious scale of deforestation in my native country Russia due to bad international policy. Poor political decisions and short term perspective on top of lack of personal accountability are bringing one of the most valuable forest domains on the edge of disappearance. Although the forests in Russia cover a tremendous area of land, the pace of logging is frightening. Russian's neighbor China with its monstrous economy engine can burn and process enormous amounts of resources. Although wood is a slowly renewable resource, the current Russian policy to be with China "on a short laced" is annihilating forests to feed the industries across the border. Then, I noticed that another emerging market (Brazil) is making the same mistake. I can not completely state whether those are the mistakes or not, but that is my sensible position as a citizen of the world.

From the beginning of ages, the forest has always been one of the most essential materials humans ever used. The national need for money on the basic level can be solved with lumber production or export, and this is a normal state of affairs. But the colossal demand in modern economies can easily outshine the supply of any material. In the case of forests, this is even easier to do as forest reproduction has barely improved. The problem starts to fluctuate when in addition to economic need, politically-driven decisions bring the forest industry out of balance and result in excessive production of lumber.

In my research I expect to find answers to the following questions:

1. What is the current situation in countries that are well-known for its international forest supply and its deforestation?
2. What is the spectrum of countermeasures (from none to something) the countries take to ease the issue?
3. The forecast on what is going to happen to flora and fauna, including us, when the amount of forest required for the normal state being will be approaching its critical mass.

**Source Entries:**

**Citation:** White, Topher. "What can save the rainforest? Your used cell phone." *YouTube*, uploaded by TED, Mar. 3, 2015, <https://www.youtube.com/watch?v=xPK2Ch90xWo>

**Summary:** The countermeasure that is being implemented right now to help reduce illegal logging in the rainforest of Borneo, Asia is an IT technology. The intent of the technology to distribute devices through the forests that will be connected to the global network and the local people who are responsible and indifferent to the forest problem. The algorithm will separate the natural sounds of the forest such as operating machinery, wood-chopping, and chainsawing. Once an unusual sound is detected, the nearest reaction groups will be notified and the event will be logged on file in police and global organizations. The forest would require a tremendous amount of devices that can record, save, and transmit audio files. Luckily, the elegant solution was found - only in the US, hundreds of millions of cell phones are thrown away every year! Once the idea and solution were published and wide-spread, people from around the world started sending their old devices to Borneo. Topher told us about how he was surprised by the amazing cellular reception in such a remote rainforest. This allowed his team to start effectively using the inventory and significantly reduce the cost of the entire enterprise.

**Reflection:** There is nothing new under the Moon. The TED Talks is a modern edition of ancient Rome forums and is a successful platform for conveying high-order and simple ideas. Topher White commands respect from the first seconds because you realize this human is spending his life on defending Nature for us. The era of IT allows us to solve very old and growing problems, sooner or later. The contemporary utilization of used devices for the needs of fighting against deforestation is a good example of a shared economy that aims at the preservation of our shared world. This TED talk has happened already five years ago and there is progress on the Bornean illegal loggers. I am not sure if at this moment this technology may be effectively applied in Brazil or Russia because the Amazon and Siberian forests are dramatically more vast than the Asian Bornean forest. Nevertheless, the combination of political will, IT, and most importantly, responsible and compassionate people who acknowledge the issue of deforestation is the key to mitigate the problem.

**Quotations:**

3:00 - "There was connectivity out in the forest. There was cell phone service way out in the middle of nowhere."

3:17 - "...to use the sound of the forest, pick up the sounds of chainsaws programmatically, because people can't hear them, and send an alert."

5:28 - "Hundreds of millions of cell phones are thrown away only in the US alone, not counting the rest of the world..."

---

**Citation:** Pearce, Fred. "A controversial Russian theory claims forests don't just make rain—they make wind." *Science Magazine*, Jun. 18, 2020, <https://www.sciencemag.org/news/2020/06/controversial-russian-theory-claims-forests-don-t-just-make-rain-they-make-wind>. Accessed Oct. 26, 2020.

**Summary:** The theory inverts traditional thinking: It is not atmospheric circulation that drives the hydrological cycle, but the hydrological cycle that drives the mass circulation of air. Many scientists have argued that deforestation thousands of years ago was to blame for desertification in the Australian Outback and West Africa. The fear is that future deforestation could dry up other regions, for example, tipping parts of the Amazon rainforest to savanna. The study is being conducted, showing that major forest regions feed each other. Such massive Siberian forests supply Chinese, South Asian, and even Brazil forests. The exhaust moisture that is being transferred further to the forests, thus looping the Flying River - a term for a moisture-carrying wind that supplies rainforests with regular rains.

**Reflection:** I think this piece of information is valuable to the extent that simultaneous countermeasures to deforestation are even more important than local incentives. Imagine Brazil has fully completed the war against deforestation but it will be drying and turning into Savanna anyway because the Russian part isn't done yet. Everything in this world is interconnected.

**Quotations:**

"Globally, 40% of all precipitation comes from the land rather than the ocean. Often it is more. The Amazon's flying river provides 70% of the rain falling in the Río de la Plata Basin, which stretches across southeastern South America. Van der Ent was most surprised to find that China gets 80% of its water from the west, mostly Atlantic moisture recycled by the boreal forests of Scandinavia and Russia."

"The theory inverts traditional thinking: It is not atmospheric circulation that drives the hydrological cycle, but the hydrological cycle that drives the mass circulation of air."

“Forests are complex self-sustaining rainmaking systems, and the major driver of atmospheric circulation on Earth” - Anastassia Makarieva

---

**Citation:** Welch, Craig. “How Amazon forest loss may affect water—and climate—far away.” *National Geographic*, Nov. 19, 2018, [www.nationalgeographic.com/environment/2018/11/how-cutting-the-amazon-forest-could-affect-weather](http://www.nationalgeographic.com/environment/2018/11/how-cutting-the-amazon-forest-could-affect-weather). Accessed Oct. 26, 2020.

**Summary:** Even modest increases in deforestation could affect water supplies in Brazilian cities and neighboring countries while harming the very farms he is trying to expand. More massive deforestation might alter water supplies as far away as Africa or California. Already, by the Brazilian government's estimates, 17 percent of the Amazon forest system has been lost—not including the parts that are still largely intact, but degraded. Most troubling of all: Some scientists suggest the Amazon may already be nearing a tipping point. The region has been so degraded that even a small uptick in deforestation could send the forest hurtling toward a transition to something resembling a woodland savanna.

**Reflection:** The influence of the Amazon Basin is gigantic and lies far beyond the borders of Brazil. The Brazil government or even the governments are in high responsibility not only for local economical sustainability based on farmlands and log export, but the future tone of world climate that depends on Amazon Basin's important role to a high degree.

**Quotations:**

"We need to have a forest to have the rain necessary to plant crops" - Adriane Esquivel-Muelbert.

“Some scientists suggest the Amazon may already be nearing a tipping point. The region has been so degraded that even a small uptick in deforestation could send the forest hurtling toward a transition to something resembling a woodland savanna, according to an analysis last year by two top scientists.”

"We are already in a very critical situation in terms of climate change" - Adriane Esquivel-Muelbert.

“Already, by the Brazilian government's own estimates, 17 percent of the Amazon forest system has been lost—not including the parts that are still largely intact, but degraded.”

**Conclusion:** Despite a very complicated political situation in Brazil, the governments and local communities constantly address the issue and find ways to curtail carvings of the economy. While it is

understandable that the country experiences the conflict of interest (any country would do), Brazil has to deal with it because in the long-term perspective - the lack of supervision over the forests will backfire and there will be no way back - the face of the Amazon basin will change forever, the climate will change. Needless to say that the fauna is also part of the biosystem and once significantly affected - the area will become unrecognizable.

Luckily, the alternative renewable energy carriers are becoming cheaper from year to year, but first, as an energy resource is very small compared to its use as construction material, furniture, and many other applications. The worst impact is still the same- illegal logging and logging for agriculture. Brazil does have positive results in the prevention of deforestation.

Although Siberian forests are a one-quarter part of all forests in the world, from first sight the problem of deforestation in Russia may even seem like a joke. Honestly, it may be compared to a satellite planet! Nevertheless, the preventive actions are always good. The local communities and Greenpeace ring the bell because the critical mass of forests that affect the rest of the world is under logging, legal, and illegal. Like in Brazil where land is being taken by soy farms, Russia as a major player in the wheat market has to keep up with the pace and increase the areas for farming. Moreover, illegal logging is extremely hard to control due to large distances between cities, towns, and villages. From my personal view, this is probably the easiest business to make in Russia, especially if you found who to bribe. On top of that, the annual forest fires and complicated fire management of Siberia and the Far East also cause the loss of forest that is hard to count and forecast.

The cumulative effect may be dramatic, and if the quarter of the world forest significantly changes - it will change the world. It is not a lofty assumption - the studies in my research cast serious concerns. The solution to solve or ease the issue of deforestation is complicated but achievable, it needs to be approached from all problematic locations simultaneously – Brazil, Russia, Southern Asia, Africa. The challenging point for me was to find connections between distant sources and justify my initial assumption on deforestation. During another iteration, I changed the focus and stopped considering the Brazilian and Russian deforestation cases as local problems. I love geography and feel quite comfortable discussing it, but the fact of how the forests are deeply connected was a fascinating point. It is a common practice when some people tend to exaggerate issues to address particular political or economic goals. Unfortunately, this is not the same when speaking about our forests – it is a tremendous threat to the future's world well being. comfortable discussing it, but the fact of how the forests are deeply connected was a fascinating point. It is a common practice when some people tend to exaggerate issues to address particular political or economic goals. Unfortunately, this is not the same when speaking about our forests – it is a tremendous threat to the future's world well being.