

Effects of Agriculture



With today's growing population, developed and developing countries are using destructive methods in order to assure that they can grow sufficient amounts

of food to support their people and economy. By: Riley Brutto and Maddy Chow

Deforestation

"What is deforestation?"

Due to a lack of education amoung their population, many Brazilians turn to agriculture as a way to provide for themselves and their families. Additionally, low labour costs draw in large commercial companies that establish business in these developing worlds. However, to obtain farmland in the first place, deforestation has become a common practice, where thousands of miles of lush jungles are cleared away for agricultural practices. According to NASA imaging, 224,000 square miles of rainforest have been cleared in the Amazon. If left unchecked, the drastic consequences could harm not only the countries practicing deforestation, but the entire earth.

<u>Types of Deforestation:</u>

60.0

50.0

Cattle Ranching

While its easy to assume that the largest amount deforestation can be accounted to colonization, such as the construction of roads and new towns, the greatest threat to the rain forests is cattle ranching. Today, Brazil exports the largest amount of cattle in global trade, making it a key component in the growing economy. Cattle require a vast amount of open fields for grazing, which explains why cattle ranching causes almost 70% of all deforestation in the Amazon. Cattle Production in Brazil, 1977-2007

Subsistence Agriculture

While a significant amount of deforestation can be accounted to large scale businesses, mainly for profit, local Amazonians and rainforest inhabitants contribute as well. These farmers produce food only for themselves and their families, with little excess to sell in local markets. Without their farms, they would have no source of income or food



Commercial Agriculture



Commercial agriculture occurs when large scale farms produce massive amounts of food to sell or trade. Commercial agriculture accounts for about 7% of Amazonian deforestation. In Brazil, cash crops used to export and trade to wealthier countries are prevelant. Many Brazilians have little to no access to them because they simple cannot afford them, they're simply used to trade.



Dead Zones

"What is a dead zone?"

A dead zone is caused by runoff from farming which brings a flood of nutrients into bodies of water. This creates a burst of growth in phytoplankton, then bacteria which consume both the plankton corpses and the oxygen in the water. This is another detrimental effect of agriculture and the use of fertilizers.



"Hypoxia leads to major loss in biodiversity and impacts the surviving organisms through sub lethal stresses [...] physiologic stress, forced migration, reduction of suitable habitat, increased vulnerability to predation, and disruption of life cycles" -Raquel Vaquer-Sunyer and Carlos M. Duarte

<u>The Gulf of Mexico and it's huge dead zone</u>



Measurements of the Dead zone located in the Gulf of Mexico, the image on the left depicts the Dead Bottom Oxygen Zone and measurements (mgL) in June/July of 2002, and the image on the right depicts the Dead Zone and Bottom Oxygen measurements (mgL) in July of 2017. Both graphs are created by National Oceanic and the Atmospheric Administration.

Last August, NOAA says that this dead zone is 8,776 square miles, which is the,"largest [...] dead zone mapping [since] 1985"



