

Deforestation Documents: These could be posted around the room gallery walk style, put at stations, whatever works. I am going to assign different groups to different positions.

### 1) **Environmentalists**

Environmental groups have worked for decades to slow down the clearing of the rainforest. Their ideas have led to conflict with many other groups- in particular, farmers and the Brazilian government.

Many scientists are on board with the environmentalists. Scientists estimate that a 2.5 acre patch of rainforest contains about 750 species of trees, 1,500 species of flowering plants, 125 species of mammals, and 400 species of birds. Think- These numbers only include the species that scientists know about!

Environmentalists want slower, smarter rainforest development. These groups argue that all rainforest species have a right to exist, which means their home must be preserved and the rainforest must be saved. Environmentalists also believe that scientists need time to study the countless species of the rainforest, for numerous benefits to society, including cures for disease.

Scientists are also still studying the connection between deforestation and climate change.

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**Scientists believe that the Amazon Rainforest alone creates one quarter of Earth's oxygen. Because rainforests are rich in plant life, they are a major part of the carbon-oxygen cycle throughout earth.**

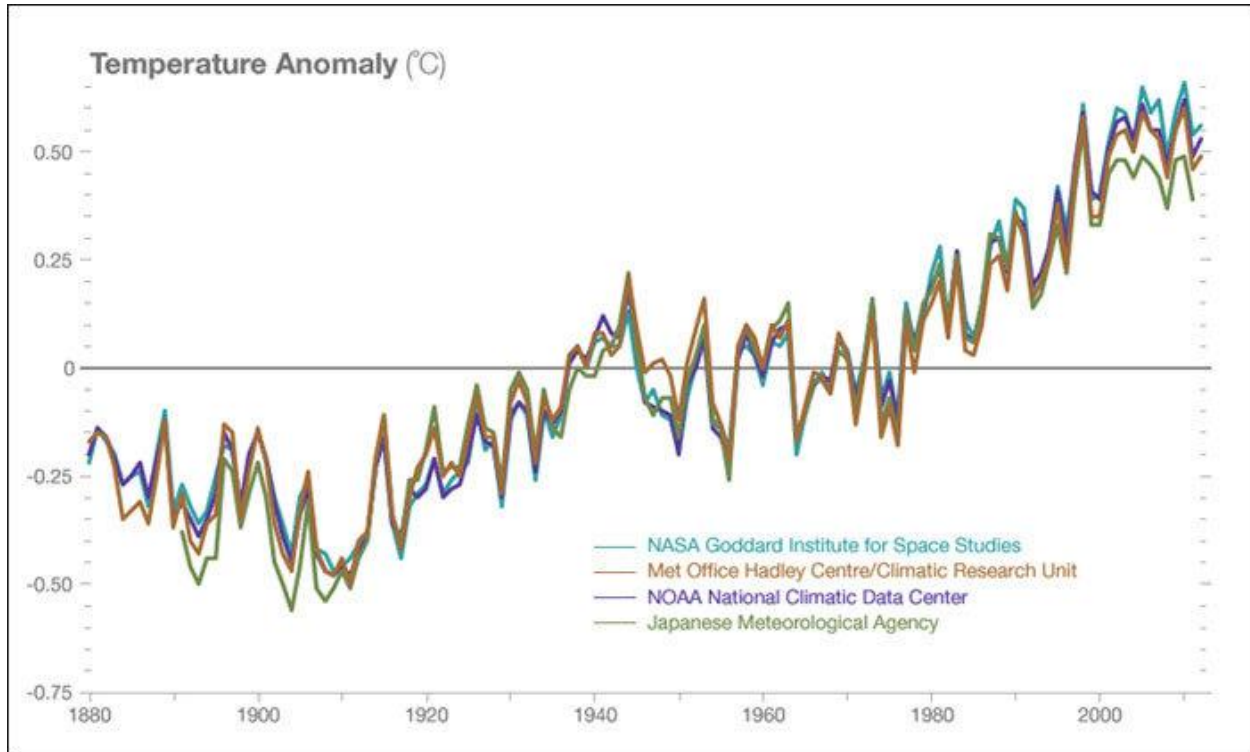
**Carbon-oxygen cycle: the process by which carbon and oxygen cycle among plants, people and animals, and the environment.**

**Many people around the world worry about the fate of the rainforest. Rainforests have been nicknamed 'the lungs of the earth.'**



Satellite image of forest loss

# NASA: Scientific consensus: Earth's climate is warming



*Temperature data from four international science institutions. All show rapid warming in the past few decades and that the last decade has been the warmest on record.*

*Multiple studies published in peer-reviewed scientific journals show that 97 percent or more of actively publishing climate scientists agree: Climate-warming trends over the past century are very likely due to human activities. In addition, most of the leading scientific organizations worldwide have issued public statements endorsing this position.*

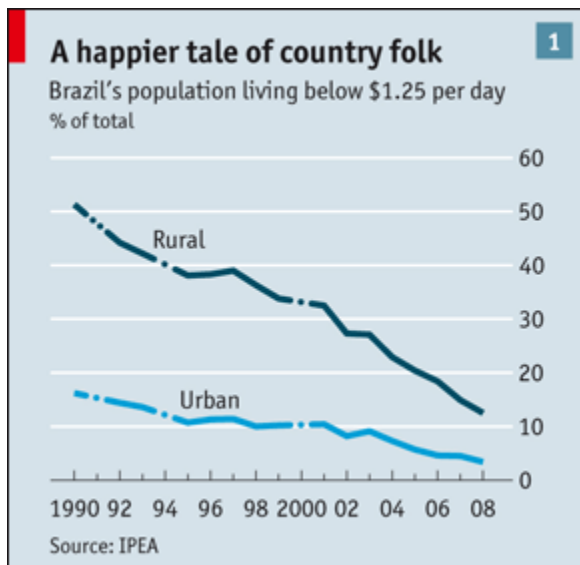
## 2) Subsistence Farmers

Although Brazil has one of the largest economies in the world, almost one quarter of Brazilians are poor. In rural areas, an even greater proportion live in poverty. During the 1960's the government of Brazil began to encourage poor people to move to into the Amazon rainforest (the opposite of urbanization). These new settlers looked to the rainforest to farm as a means of survival.

Despite Brazil's large size, there are limited areas of designated farmland. Furthermore, farmland is not shared equally. A few wealthy families have long owned most of the best farmland, whereas millions of poor Brazilians own no land at all. For many families in Brazil, the idea of owning a farm in the Amazon felt like a distant dream, and the government did what it could to make this dream a reality. By supplying people with free land and start up money, people were able to move into the rainforest and plant crops.

However, the dream ended up being a bit of a nightmare. Farming in the Amazon is extremely difficult. The soil is thin and surprisingly devoid of nutrients. The heavy rains wash away the soil easily. Indigenous Amazonians were able to solve this problem by moving around and constantly farming in new areas. This is difficult for a settled farmer, who needs to feed their family.

**The United Nations compiles progress reports comparing urban and rural poverty declines worldwide. The most recent progress report, published in March, said that rural poverty fell by 15 points in 2003-08, much more than the urban rate (see chart 1).**



← What do you notice about poverty levels?

Article from 'The Guardian'

# Brazil grants land rights to squatters living in Amazon rainforest

Campaigners fear controversial 'land-grabbers' law will lead to accelerated deforestation



An aerial view of a cattle farm in a deforested area of the Amazon close to Maraba, Para. Wednesday 11 June 2014.

Brazil's president Lula has approved a controversial law which grants land rights to squatters occupying land in the Amazon — campaigners fear it will result in a further increase in deforestation of the Amazon region.

The law — known as "provisional measure 458" — is one of the most controversial environmental decisions of Lula's two terms in office, with the president coming under intense pressure from both environmental groups and the country's powerful agricultural lobby.

Marcelo Furtado, Greenpeace's campaigns manager in Brazil, said the approval of the law showed that Brazil's policy on global warming was contradictory: "On one hand [Brazil](#) is setting targets for the reduction of carbon emissions and on the other it is opening up more areas for deforestation."

Brazil's government says more than 1m people will benefit from the law, which covers 67.4m hectares of land, an area roughly the size of France. It believes the law will reduce violent conflicts by giving people private ownership of the land they live on, and will make it easier to track down those illegally felling trees.

But environmentalists — who have dubbed it the "land-grabbers bill" — fear the new rules will offer a carte blanche for those wanting to make money by destroying the Amazon. They say the law effectively provides an amnesty for those who have devastated the Amazon over the last

four decades. Around 20% of the Amazon has already been lost, according to environmental campaigners, and deforestation globally causes nearly a fifth of all greenhouse gas emissions.

"This measure perpetuates a 19th century practice [of Amazon destruction] instead of taking us towards a new 21st century strategy of sustainable development," said Furtado. Furtado said the law – originally intended to benefit impoverished farmers in the Amazon – had been "hacked apart by the agricultural lobby" and now benefited wealthy farmers rather than smaller landholders. The result, he said, was "a law which will not help increase governance [or] social justice but which simply raises the risk of more deforestation."

Under the new law, small landowners who can prove they occupied lands before December 2004 will be handed small pieces of land for free, while large areas will be sold off at knockdown rates. The government hopes this will help bring order to a region where land disputes often result in violent clashes and murder. Brazilian human rights group Justica Global, claims 772 activists and rural workers have been killed in the Amazon state of Para between 1971 and 2004.

Human rights groups also criticised the law, saying unscrupulous Amazon ranchers, who often exploit slave labour, stood to gain from the new rules. Faced with a vocal campaign against the measure, Lula hit back, accusing "the NGOS [of]... not telling the truth."

In the decision, which came late on Thursday, Lula vetoed two of the most divisive sections of the bill – giving private businesses and absentee landowners the right to regularise their lands. But the Brazilian president gave the green light to one of the most controversial clauses, which will give new landowners the right to resell their properties after three years.



### **3) Commercial Farming - Cattle Ranching & Lumber**

The Amazon rainforest has a great variety of trees, including hardwood trees such as mahogany and rosewood. Trees are used for a variety of products such as paper and fine furniture, and hardwoods are especially valuable. Unfortunately, hardwoods are scattered all over the forest and are difficult to find.

Loggers must clear cut whole patches of forest to find these trees. Clear cutting means that they cut down all of the trees in one area, and after all of the trees have been removed in one area, they move to another. Logging companies argue that clear cutting is the only way to make money. Clear cutting also makes room for more settlers to enter the Amazon rainforest.

Clear cutting is a major cause of deforestation. However, loggers claim that they are boosting the economy of Brazil by creating jobs and exporting a valuable product. In 2004, Brazil exported 5 billion dollars' worth of wood. This money improves living conditions for many citizens.



Photo of Clear Cutting, Amazon Rainforest



Cattle Ranching in Para State, Brazil.





#### **4) Indigenous Peoples**

At one time, there were 10 million native people living in the Amazon rainforest, but today that number is much smaller. Indigenous Amazonian people want one thing: to continue their traditional way of life.

Indigenous people have lived in the rainforest for 12,000 years, and many live as they always have: by hunting, fishing, and growing crops on small plots of land. When the small plot of land is no longer fertile, they move on. Over time, forest covers the land they have cleared. This is a sustainable way of life in the Amazon rainforest, and it has caused no long term damage.

With the arrival of cattle ranchers, loggers, and subsistence farmers, this practice has become much more difficult. The arrival of so many newcomers has hurt the indigenous peoples' way of life. Many are driven from their homelands in order to make room for farms and ranches. Some have died of disease brought by exposure to newcomers. Others have been killed or injured in land use conflicts.

Today, indigenous Amazonians want to save parts of the rainforest from development, arguing that they have the right to preserve their way of life. A skill that they have had to develop is how to work with Brazil's government and legal systems. Native groups have called on the government to make them legal owners of their homelands. Many believe that only through legal ownership will they be able to keep others from destroying their rainforest home.



Protest by Native Amazonians, 2010



National Geographic photo, Amazonian hunters.