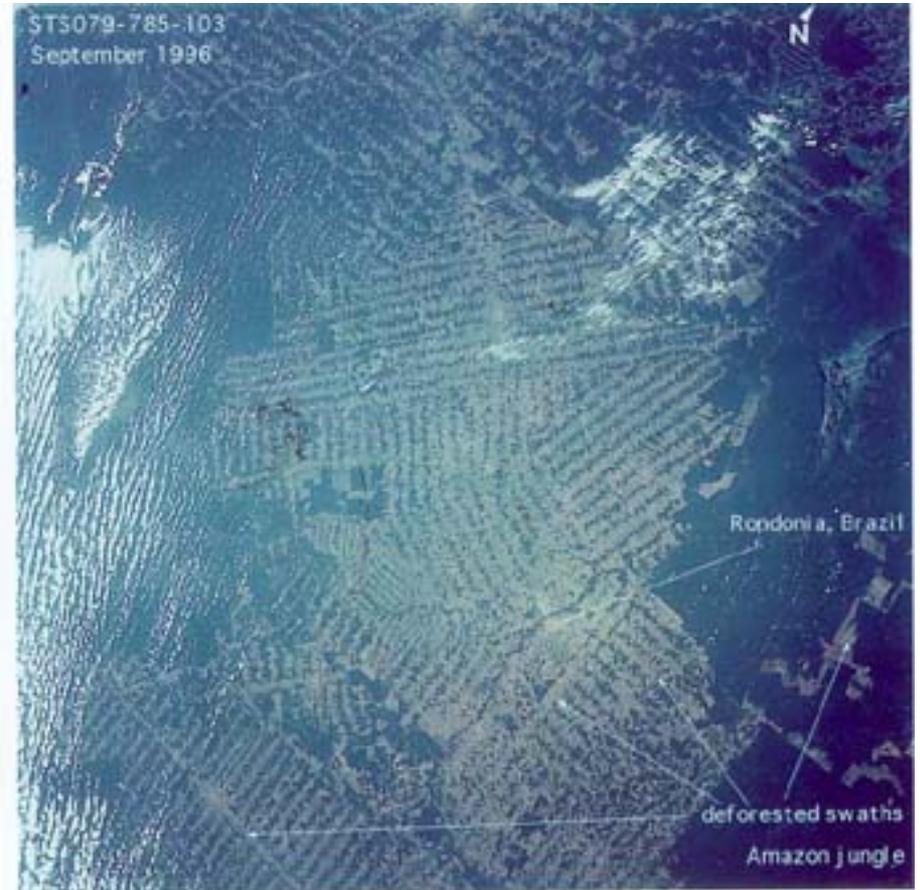
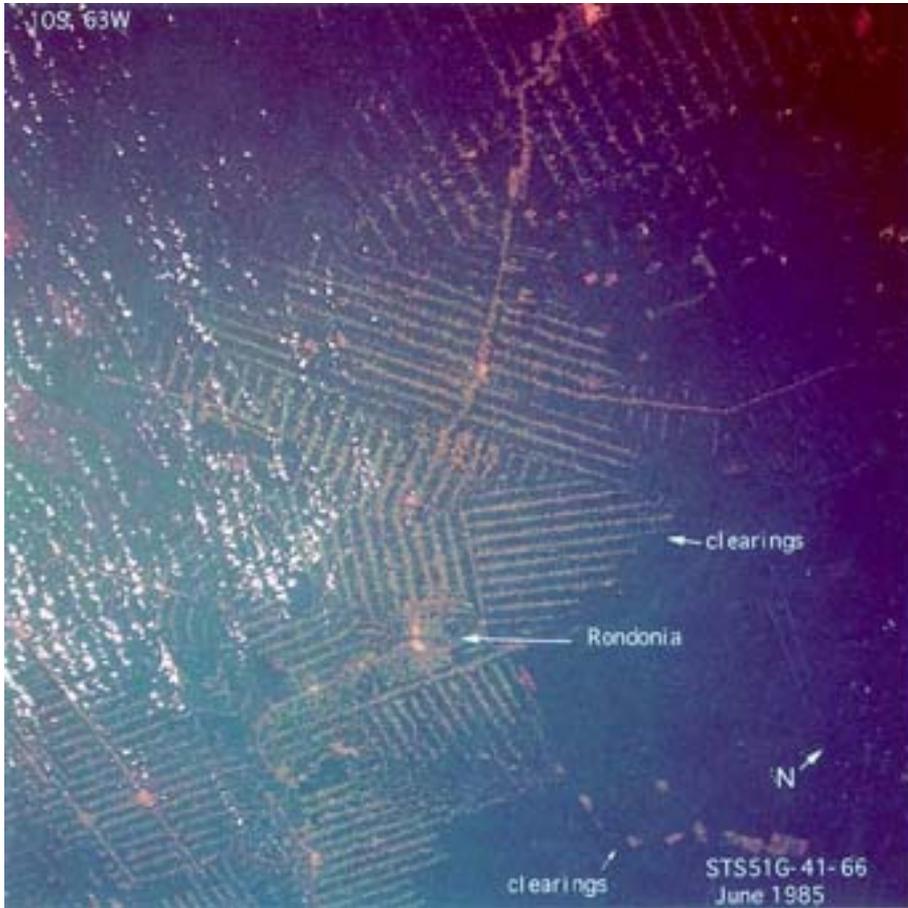




Deforestation in Rondonia, Brazil





Deforestation in Rondonia, Brazil



Latitude: 8.13° S Longitude: 60.65° W
Date: June 1985 and September 1996
Type of Image: Shuttle astronaut photos
Image ID #: STS051G-41-66 and STS079-785-103

The southern Amazon Basin in Brazil is one of the regions of the Amazon rainforest undergoing rapid change, mostly in the form of forest conversion. In these two images of the same region, the light green lines and squares are areas of cleared forest which are used mostly for agriculture, and the very light yellow or gray spots at road or river junctions are new towns (a) in the forest. These two images are both roughly centered on the city of Rondonia (b), but they were taken 11 years apart, in 1985 and 1996 respectively.

The rainforest in this region is being cleared in a pattern that, from space, looks like fish bones. Clearing starts along roads and rivers. The cleared areas are mostly elongated rectangles (light green) that extend out into the forest (dark green) from the road or river. Over the years, the number of cleared plots and the size of the plots has increased, so that more and more land is cleared, and less land is covered in forest. The two images together create a time series, which allows for the assessment of the types and rates of change in land-use and forest clearing.

What are the effects of deforestation both locally and globally?

Why are they clearing the land in this fish bone pattern?

Does the development look planned or unplanned? Why?

a. new towns

clouds

210 Kilometers

200 Kilometers

areas of cleared forest (light green lines)

210 Kilometers

200 Kilometers

Why might they want to clear this land? To what uses is deforested land put?

b. Rondonia

How much land has been cleared? What was the increase in cleared land between 1985 and 1996?

Additional information:

EarthKAM images and lessons:

<http://www.earthkam.ucsd.edu>

JSC *Earth From Space* image database:

<http://earth.jsc.nasa.gov>

NASA Spacelink:

<http://spacelink.nasa.gov>