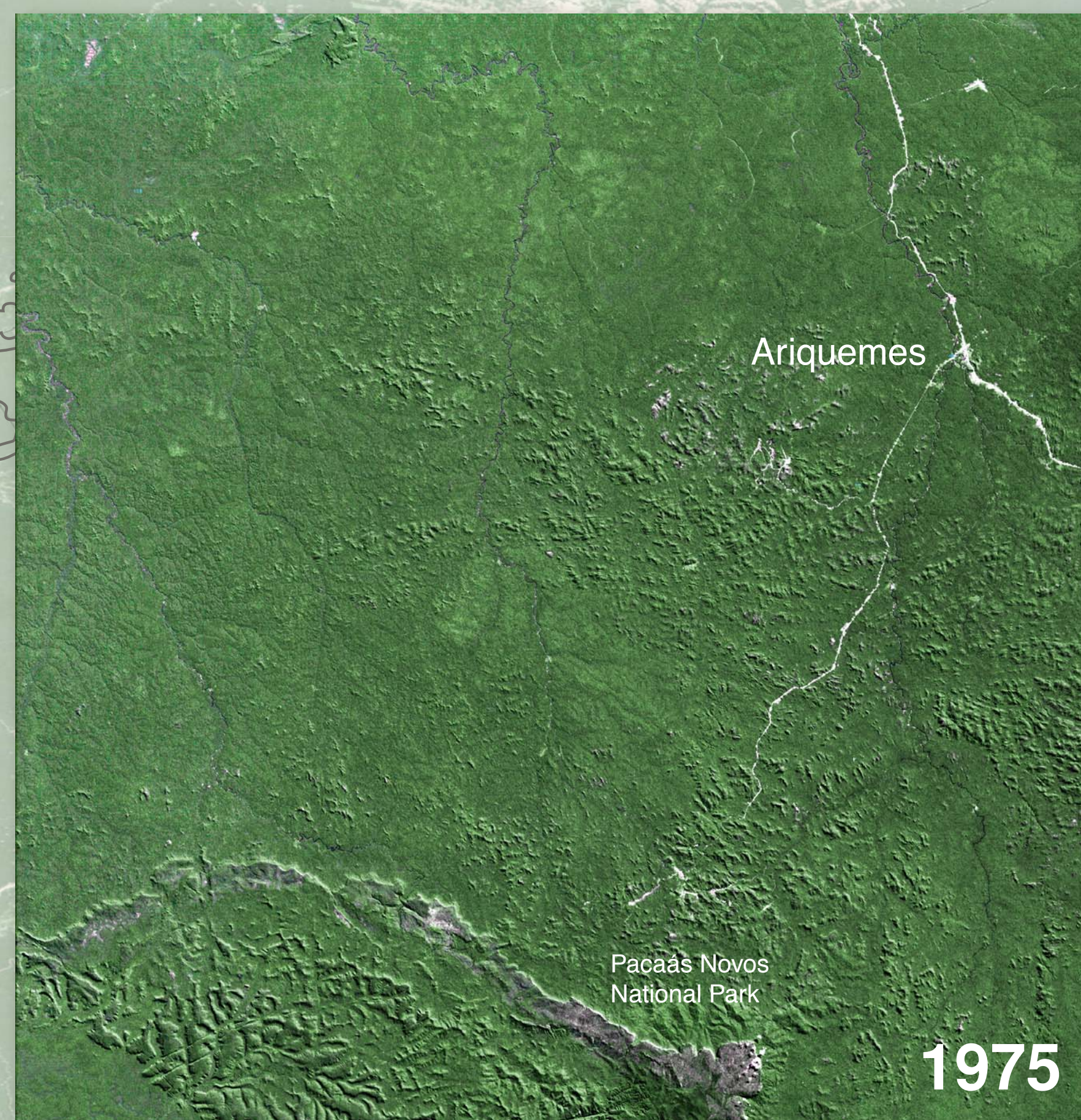


Landcover Change in Brazil



Deforestation in Rondônia, Brazil

In a continuing effort to decentralize the Brazilian population and explore undeveloped regions, the Brazilian government constructed the Cuiabá-Pôrto Velho highway through the province of Rondônia. Completed in 1960, the road served as the spine of access for infrastructural development into tropical rainforest ecosystems, previously occupied only by the indigenous people of the region. The highway connected the north and western parts of Brazil with the more urbanized areas of the south central and coastal areas.



A New Highway opens the Forest

The 1975 image shows the growth attributed to the new highway. Notice the town of Ariquemes beginning to expand in the upper right quadrant. Two key factors increased migration to the State of Rondônia. First, in December 1980, Brazil invested in paving the Cuiabá-Pôrto Velho highway, thus allowing ease of travel. Second, economic hardship in the rural and urban areas near the southern coast promoted migration. Immigrant farmers fled to the area in hopes of gaining access to land, now scarce in the southern and coastal urbanized regions. Former city dwellers also fled to the area, leaving the poverty stricken coastal areas in search of nonagricultural opportunities in the expanding urban areas, some even fled in search of gold.



Deforestation for Agriculture

The 1986 image exhibits substantial immigration to the area between 1975-1986. The predominant "feathered" or "fishbone" pattern on the landscape is the result of logging operations, providing mechanized access to land resources. Primary land uses are cattle ranching, and annual crop farming. More sustainable perennial crops like coffee, cacao, and rubber, occupy less than 10 percent of the agricultural land areas.

Sustainable Agriculture, lost forests

Space for agriculture continues to threaten the Brazilian rainforest. In the central portion of the Landsat 7 image from 2000, a distinctive net shaped pattern of clear-cut is evident. Despite encroachment, programs are attempting to preserve the cleared lands with more sustainable multi-use functions providing a wider array of income producing products for local farmers.