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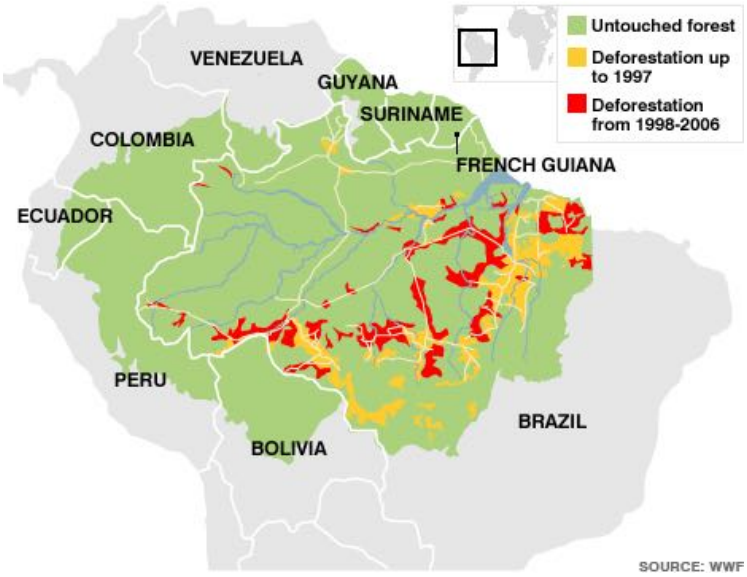
The Amazon in graphics

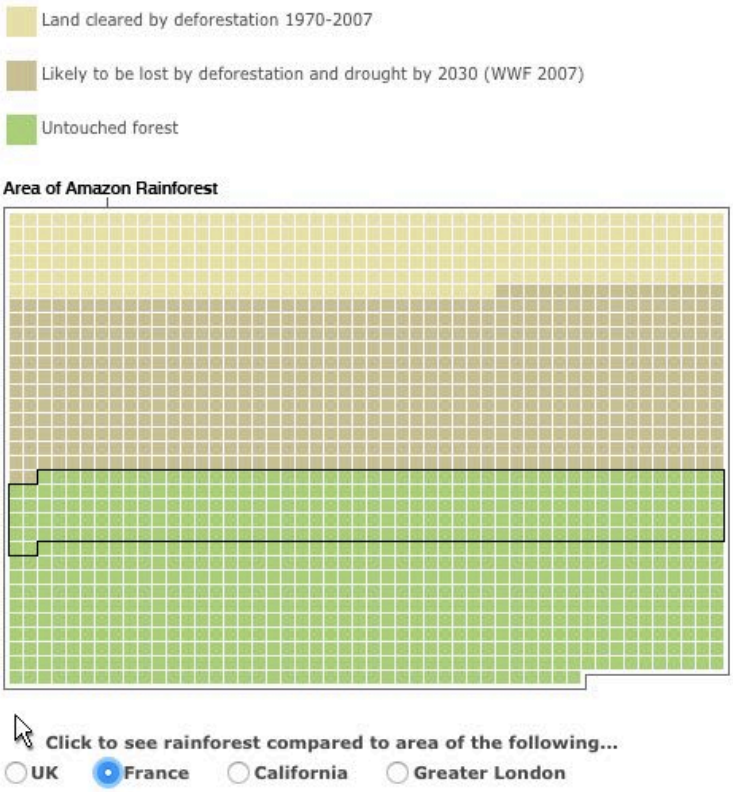
AMAZON RAINFOREST



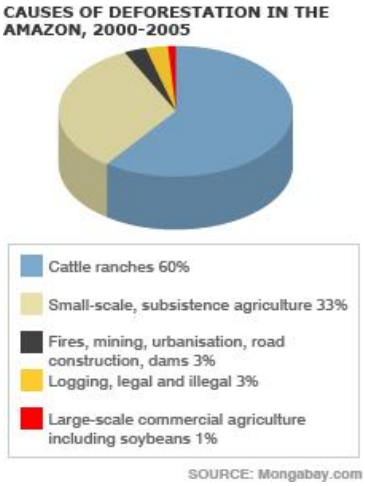
The Amazon rainforest is the biggest tropical forest in the world, covering some 40% of the continent of South America, spread across nine countries and 6.6m square kilometres.
More than 40,000 plant species, including 1,000 different trees, have been identified in the rainforest.
According to figures from the World Wide Fund for Nature (WWF), it is also home to 427 different mammals, 1,294 birds, as well as 30 million people, including more than 220 indigenous groups.

DEFORESTATION

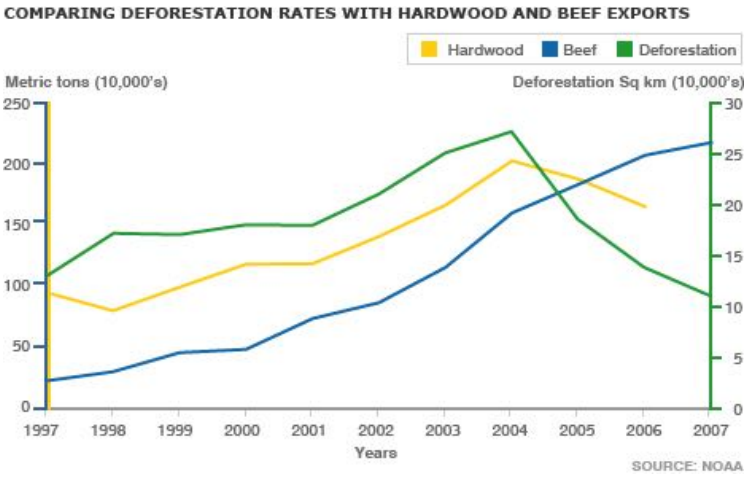
About 65% of the Amazon rainforest lies within Brazil and is home to 13% of the country's population. Since 1970 almost 700,000 square kilometres of the Brazilian Amazon have been cleared.
The area shown in squares below represents the 4.1m square kilometres of the Brazilian Amazon and shows how much has been cleared or is at risk. Each square measures 2,500 square kilometres.



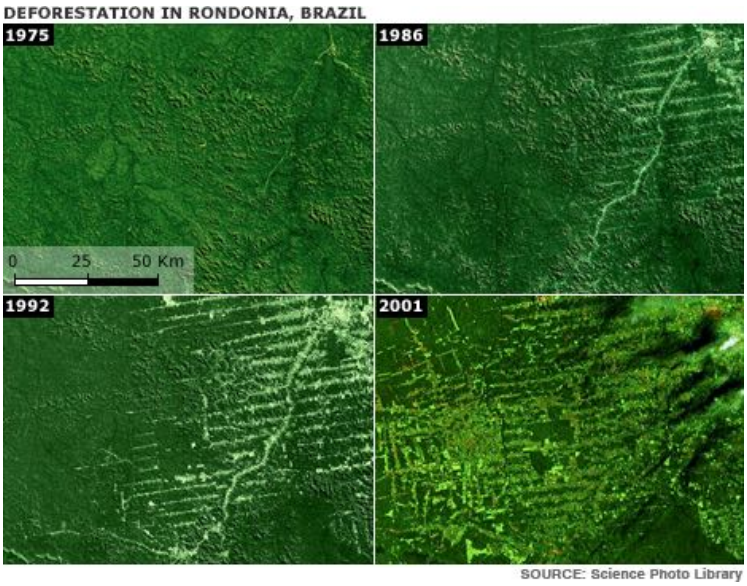
CAUSES OF DEFORESTATION



Cattle ranching is the leading cause of deforestation in the Brazilian Amazon. Since 1990, the number of cattle in the Amazon has more than doubled from 26 million to 57 million in 2002.
The rise in production has been driven by a huge rise in beef exports - combined with a revaluation of the Brazilian currency, the Real, which made cattle ranching more profitable for farmers and encouraged them to deforest.
The graph below shows how deforestation rose as beef and hardwood exports increased until 2004.
Since then the government has achieved some success in reducing the amount of forest being cleared, through controlling illegal **logging**, more land inspections and creating conservation areas, although figures released in January 2008 suggest deforestation is beginning to rise again.

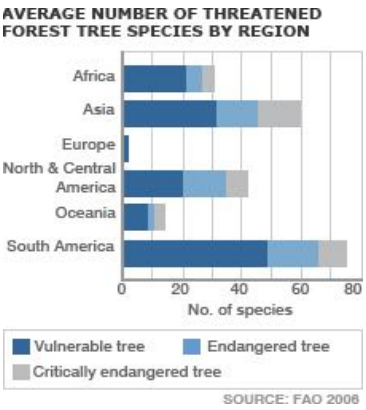


Logging in the Amazon is theoretically strictly controlled by licensing which allows timber to be harvested only in certain areas. However, the environmental group, Greenpeace, estimates that 60-80% of all logging in the Brazilian Amazon is illegal.



Brazil overtook the US as the world's leading exporter of **soybeans** in 2005/6, according to the US Department of Agriculture.
Although soybean farmers tend to occupy land already cleared of forest, they accelerate deforestation in other areas by pushing **subsistence farmers** further into the forest and encouraging the development of new roads and other infrastructure.
Satellite pictures, like those above, show how farmers begin clearing land along roads and gradually spread further into the forest.

THE FUTURE



Deforestation is threatening the future of the forest - with dozens of tree and plant species at risk of extinction. The International Union for Conservation of Nature, IUCN, which monitors plant and animal species, calculates there are 382 plant species in Brazil at risk. It also classifies 343 different types of mammals as at risk.
There are also fears large-scale deforestation could contribute to global warming. The Amazon acts as a "carbon sink", absorbing carbon dioxide. But once the trees are cut down, this absorption stops. Often the wood is burned, releasing carbon; and the loss of forest cover can also lead to carbon release from the soil. Research at the Paulista State University in Guaratingueta, Brazil, calculates an average of 22,000 tons of carbon dioxide is emitted per square kilometre of forest cut down.
The forest also releases enough water to the atmosphere via evapotranspiration to influence world climate patterns.
Forecasts of the forest's future predict deforestation will continue. The WWF predicts 30% of the forest will be lost by 2030, if deforestation continues at the 1998-2003 rates and current climate conditions apply.
Even the best case scenario projection suggests 20% of the forest could be lost, if the government's schemes for preserving the forest succeed.