



THE WOODS HOLE RESEARCH CENTER

149 Woods Hole Road · Falmouth, MA 02540-1644 USA
Telephone 508.540.9900 · Fax 508.540-9700 · www.wbrc.org

New Study Examines Links Between Soy and Beef Production and Possible Futures for the Amazon

Dec. 1, 2006

The fate of the Amazon rainforest is increasingly tied to the global commodity marketplace, according to a new study by scientists at the Woods Hole Research Center, the University of Florida, and the *Instituto de Pesquisa Ambiental da Amazônia* (IPAM). Deforestation oscillates depending upon the prices of soy and beef and the strength of the Brazilian currency, the Real, against the dollar. The findings are published in the current issue of *Conservation Biology*.

Daniel Nepstad, the lead author and a senior scientist at the Woods Hole Research Center, states that, "Four years ago, the weakness of the Real coincided with growing demand for soy in Europe, following 'mad cow' outbreaks, and China, and soaring prices for beef. As a result, deforestation rates climbed to 27,400 km² in 2004, 50 percent above the long-term average."

With the decline of soy and beef prices in 2005 and 2006, and the strengthening of the Real against the dollar, deforestation rates slowed to 18,800 and 13,100 km², respectively. This trend was reinforced by the tremendous efforts of the Brazilian government to slow deforestation through the creation of new protected areas, and through a crack-down on illegal land clearing and corruption.

Claudia Stickler, of the University of Florida and the article's second author, adds, "2007 may allow us to see which of these two factors — the market or the government — is more important in determining deforestation rates." Soy prices are climbing again as the demand for corn to make ethanol grows in the US, as sugar cane production for ethanol expands in Brazil, and as the demand for soy oil as a diesel substitute increases.

Furthermore, finance institutions, commodity traders, consumer groups, environmental NGOs, and human rights organizations are pushing to raise the bar on the socio-environmental "quality" of the agricultural commodity production chain. "There may be a silver lining to the cloud of globalization that has spread across the Amazon," comments Nepstad. "For embedded in the growing worldwide demand for agricultural commodities is an increasingly rigorous set of environmental and social standards."

Co-author Oriana Almeida, of the *Instituto de Pesquisa Ambiental da Amazônia* comments that, "Finance institutions that are striving to adopt the 'Equator Principles' of social and environmental responsibility are beginning to attach socio-environmental conditions to their loans, reducing the risk associated with their investments as they force farmers to obey the law and adopt good land stewardship practices." Similarly, agricultural commodity traders are seeking socially and environmentally benign suppliers and are important participants in the development of international criteria for "responsible" soy, palm oil, and other commodities. Established agricultural sectors in industrialized countries see higher standards as a way of protecting their products from competition.

In one of the most dramatic illustrations of these trends, the companies that buy most of the soy produced in the Amazon recently declared a two-year moratorium on the purchase of soy grown on recently cleared Amazon rainforest soil. This momentous decision was a response to a campaign launched by the environmental organization Greenpeace, which targeted European McDonald's restaurants for their use of Amazon soy in the feed that fattens their chickens. This moratorium is the beginning of a much broader debate about how to reduce the negative impacts of growing food and biofuel. Whether or not the potential to reform agro-industrial expansion is realized will depend on many different processes, including trade negotiations underway within the environmental movement, and the inequality of land-use regulations among countries.