

Intensity of human environmental impact may lessen as incomes rise, analysis suggests

August 20 2008

(PhysOrg.com) -- The richer you are, the more of the world's resources you can afford to consume. But in many parts of the world, rising incomes are not having the proportionate effect on energy consumption, croplands and deforestation that one might expect, a new 25-year study shows.

By examining a variety of government and industry data spanning 1980 to 2006, Rockefeller University's Jesse Ausubel and his colleagues say that dematerialization — the declining consumption of energy and goods in comparison to a country's gross domestic product — is actually driving a trend toward rising environmental quality. The results are published this week in Proceedings of the National Academy of Sciences.

“For generations, people have lightened their environmental impact by multiplying their consumption less than their income,” says Ausubel, director of the Program for the Human Environment. “We have found encouraging evidence that this trend continues, particularly in places like China and India.” While consumers increase their use of staples more slowly than their affluence grows, producers also play a role as access to better technology allows them to get more from less.

An especially striking example is China. Without the dematerialization from 1980 to 2006 by Chinese consumers, actual national energy use in 2006 would have been 180 percent greater, Ausubel says. In India, an initial trend toward poorer environmental performance appears to have

reversed. Meanwhile, the effect has also occurred in the United States, France and other rich nations. In the U.S., dematerialization progressed steadily at about two percent a year throughout the study period, regardless of which political party was in power.

Other countries, however, have not shown progress. “Though positive evidence prevails, our analysis reports troubling directions for Brazil and especially Indonesia,” Ausubel says. And in several instances the authors found discrepancies and fluctuations in data that require caution in terms of drawing generalizations.

“Overall,” concludes Ausubel, “consumers and producers demonstrate that richer can be greener.”

Provided by Rockefeller University

Citation: Intensity of human environmental impact may lessen as incomes rise, analysis suggests (2008, August 20) retrieved 24 April 2024 from <https://phys.org/news/2008-08-intensity-human-environmental-impact-lessen.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--