

X-Sender: confer@pop.nber.org  
X-Mailer: QUALCOMM Windows Eudora Version 5.0  
Date: Tue, 07 Sep 2004 07:49:51 -0400  
To: rshannon@nber.org  
From: Confer <confer@nber.org>  
Subject: Fwd: URC: International transmission

From: "Corey Lofdahl" <clofdahl@bos.saic.com>  
To: <confer@nber.org>  
Subject: URC: International transmission  
Date: Fri, 3 Sep 2004 13:26:23 -0400  
X-Mailer: Microsoft Outlook, Build 10.0.2627  
Importance: Normal

Issues regarding trade and the environment have gained increased policy salience as highlighted by the 1999 World Trade Organization (WTO) ministerial riots in Seattle. Economists maintain that trade helps the environment citing numerous empirical studies that correlate international trade with increased national wealth and national wealth with cleaner natural environments. Environmentalists, in contrast, maintain that the opposite as environmental degradation is historically coincident with industrialization and trade. Lofdahl (2002) argues that trade hurts rather than helps the environment using a range of computer-based techniques including data visualization, econometrics, and simulation. This study highlights three methodologies that are used to analyze the international transmission of economic effects. First, Geographic Information System (GIS) models are used to establish the spatial context of various national measures including GNP per capita, population growth, CO2 per capita, and forest area. Second, spatial or diffusion techniques are used to model explicitly the effects of international trade on national ecologies as measured by forest area. Third, a continuous simulation is developed to analyze more theoretically the coordinating effects of trade among nations.

Lofdahl, Corey L. 2002. \_Environmental Impacts of Globalization and Trade: A systems study\_.  
Cambridge, MA: MIT Press.