

# **EPA: Environmental Assessment Tools**

**Creating and Expanding  
Methodologies**



# US Mandates for Environmental Assessment of Trade

- Trade Promotion Authority, Section 2102(c)(4), Trade Negotiating Objectives says the USG shall "conduct environmental reviews of future trade and investment agreements."
- Executive Order 13141, "Environmental Reviews of Trade Agreements," (1999), and its implementing guidelines, (2000).
- Executive Order 13112 establishes the National Invasive Species Council (EPA is member), and tasks the USG to develop recommendations for international cooperation in addressing invasive species.
- Executive Order 13089, "Coral Reef Protection," says that the USG "shall assess the U.S. role in international trade and protection of coral reef species and implement appropriate strategies and actions to promote conservation and sustainable use of coral reef resources worldwide."



# US Environmental Reviews of Trade Agreements

## SIGNED

1. NAFTA (1992)
2. Jordan (2001)
3. Singapore (2002)
4. Chile (2002)
5. Australia (2003)
6. Morocco (2004)
7. CAFTA/Dom. Rep.  
(2004)
8. Bahrain (2004)

## IN PROCESS

1. Thailand
2. Andean
3. Panama
4. UAE
5. Oman
6. SACU
7. FTAA
8. WTO Doha Round



# Approach to US Environmental Reviews of Trade

- Initially focused on US domestic environmental effects
  - ❏ Economically driven effects
  - ❏ Regulatory effects
- Evolving shift in focus
  - ❏ Amplified discussion of trading partner environmental issues – informs capacity building
  - ❏ More attention to transboundary and global effects
  - ❏ Expanded scope of analysis (e.g., invasive species)



# Scope of EPA Inputs to Trade-Environmental Assessments

- Analytical inputs to US environmental reviews
- Training and outreach to trading partners
  - Funding of selected reviews of trading partners in Latin America
  - Development of environmental review training course



# How EPA Contributes to US Environmental Reviews

- Environmental trend profiles of trading partners – legal regimes, enforcement, natural resource use, industry-specific issues
- Economic analysis of trading partner export sectors
- Economic analysis of key US export sectors
- Transboundary pollution: air (criteria pollutants and toxics), land-based sources of marine pollution), coral reefs, invasive alien species
- Pinpoints trading partner capacity-building needs



# Emerging EPA Assessment Tools

- Trade and Environment Assessment Model
- Qualitative methodology to characterize risk of invasive alien species along trade pathways
- Environmental health issue identification



# EPA Environmental Assessment Research

- Marine shipping and trade – ballast water, air emissions, port infrastructure
- Invasive alien species – trade pathway analyses (joint research with IUCN)
- Quantitative modeling of environmental effects of trade-led US growth (air, water, toxic emissions)
- Quantitative modeling of cumulative effects of trade: NAFTA's air, water, and toxic chemical releases



# EPA Marine Shipping and Trade Research

- North American ports – EPA explores benefits of guidelines for cleaner fuel use on vessels that use diesel fuel with no pollution controls, and analyzes availability of low-sulfur diesel fuel worldwide.



# EPA Marine Shipping and Trade Research

- Chinese Ports: EPA assesses trade-related growth in commercial marine vessels and resulting air pollution with the goal of implementing activities to reduce pollution.



# EPA Invasive Alien Species Research

- EPA creates a template for trade pathway analysis, drawing on work of other US government agencies and international organizations, such as the IUCN
- The National Invasive Species Council has completed pathway categorizations.
- EPA characterizes three types of trade pathways: tradable commodities, commodity “hitchhikers,” transportation pathways



# Quantitative Modeling

- EPA developed the Trade and Environment Assessment Model (TEAM), an input-output table that generates estimates of air, water, and toxic emissions changes due to changes in economic activity led by trade (based on U.S. International Trade Commission reports). The model uses static emissions baseline data to calculate emission factors and to generate projected emissions/resource use changes for 1,200 sectors in the United States. The baseline data used in TEAM are (1) economic output by sector and county or by individual facility and (2) emissions by sector and county or by facility.

