



# Environmental assessments of trade agreements

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# Outline

- What and whys of environmental assessments of trade agreements
- Approaches/methodologies
- Some examples of environmental assessments
- Methodological issues

# What and why

- On the face of it:
  - intended to determine environmental consequences of trade liberalisation
  - Allow negotiators of trade agreements and governments to take these consequences into account in negotiations or to otherwise take mitigation measures
- Political dimension:
  - negotiators and governments need to show that they are sensitive to environmental consequences of trade

## Some history

- Last two decades were marked by successful trade liberalization initiatives, kindling fears about the likely environmental impacts of trade agreements.
  - European single market: In 1988, the EU environment ministers agreed to look into the single market's environmental implications.
  - NAFTA: concern about environmental conditions along the US-Mexican border (2,100 miles long)
  - GATT/WTO cases which overturned trade measures taken for environmental reasons: tuna-dolphin, US-shrimp, and US-gasoline.

# Consequences

- Many governments now require environmental assessments of trade agreements they negotiate
  - US: 1999 Executive Order 13141
  - Canada: 1999 Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals
- Many FTAs now have environmental chapters especially those signed by OECD countries
  - Commitment to enforce environment laws/regulations
  - Commitment not to weaken environmental protection to encourage trade or investment
  - Ensuring access to legal/administrative proceedings for the enforcement of environmental regulations

# Methodologies or approaches

- Many countries, regional institutions and international organizations have come out with assessment methods:
  - OECD
  - UNEP
  - US, Canada, EU
  - Academic institutions (University of Manchester)
- Comparison of approaches
  - Most focus only on environment but some delve into social and developmental impacts (EC SIA approach)
  - Almost universally *ex ante* rather *ex post* assessments
  - Most assessments tend to analyse only the country involved in the negotiation but EC's Doha Round Assessment examine other country groupings (developed, developing and LDCs)

# OECD methodology

- First significant effort in developing a methodology and has been a major influence in subsequent work
- Environmental effects to be examined
  - pollution effects, health and safety effects, resource effects
- Trade-environment links: five main avenues through which trade can have environmental impacts
  - Product, technology, scale, structural and regulatory impacts
- Assessment tools
  - Both quantitative and qualitative
  - Baseline environmental data should be collected

# OECD methodology (contd)

- models and forecasting techniques would be used to predict broad changes in resource use, pollution or environmental pressure resulting from the trade agreement
- complemented by case studies and other qualitative methods
- legal or policy analysis could be used to assess the regulatory implications of some trade agreements
- Monitoring and follow-up
  - provide for monitoring how the results of the assessment are used and implemented
  - follow-up steps to re-examine the environmental implications of the trade agreement since circumstances may have changed, new concerns may have emerged or the mitigating measures may no longer be required.
  - establishment of some type of environmental monitoring committee or mechanism for this purpose.

# Example 1: Sectoral study

- 2002 CEC study assessed, in some detail, the emissions arising from trucking and rail freight of trade within the NAFTA region
  - Several of the main transport corridors for NAFTA trade were selected for the analysis:
    - Vancouver-Seattle, Winnipeg-Fargo, Toronto-Detroit, San Antonio-Monterrey and Tucson-Hermosillo
  - Determined the current and anticipated future commodity flows, freight vehicle traffic volumes, and levels of emissions for each of these transport corridors
  - Calculated that the carbon dioxide emissions from NAFTA trade would increase by 2.4 to 4 times over their current levels
  - Identified opportunities to achieve lower levels of trade-related emissions, for example, by reducing empty-vehicle mileage

## Example 2: GHG emissions

- Although most assessments focus on local environmental impacts, some of them have analyzed GHG emissions
  - Possible increase in greenhouse gas emissions from increased transport activity (Australia-US, NAFTA, EU Mediterranean FTA, EU-Mercosur)
  - FTA could spur growth of forestry plantations in Chile that can capture CO<sub>2</sub> emissions (EU-Chile FTA)
  - Small reduction in greenhouse gas emissions from the reallocation of production between Mercosur and the EU
  - Part of the economic gains from FTAs could be directed to mitigating the expected climate change impacts (EU Mediterranean FTA)

# Methodological issues

- Conceptual framework
- Definition and indicators of environmental and social outcomes
- Constructing an appropriate baseline
- Quality of analytic tools
- Absence of an explicit cost-benefit (or welfare) analysis

# A. Issues about the conceptual framework

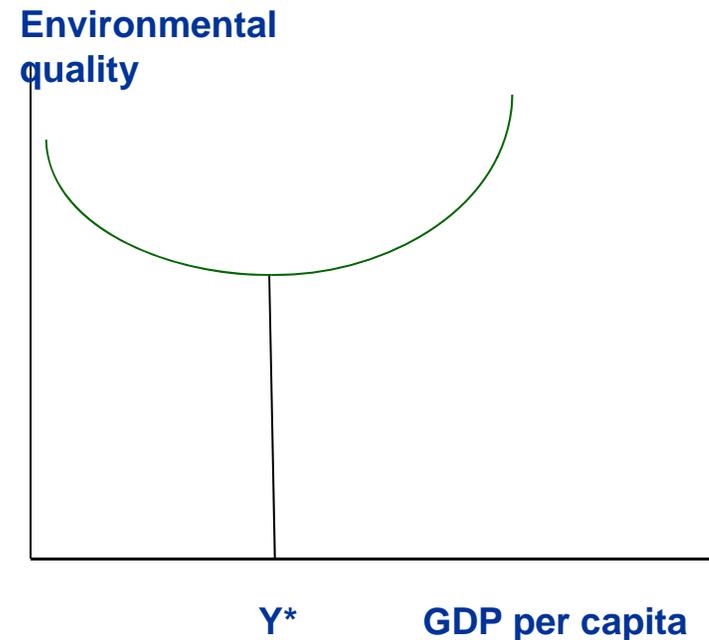
- Should we care only about environmental impact or about welfare
  - If some trade policy increases pollution, should that policy be avoided?
  - Or do we compare the economic gains from trade against the cost from increased pollution?
- Using the right instrument for the right target
  - There are efficiency gains from reducing levels of protection and from internalizing environmental externalities
  - There are appropriate instruments for those goals
    - Reduction or elimination of trade barriers
    - Pigouvian taxes or environmental regulations

# Trade-environment nexus

- Scale effect (+)
  - Trade opening leads to increased output & hence more pressure on environment (pollution, greater use of energy and natural resources)
- Composition effect (?)
  - Greater specialization towards products/services where country has comparative advantage
  - Environmental conditions may improve (deteriorate) if a country's comparative advantage lie in more environmental (less environmental) friendly sectors
- Technique effect (-)
  - Higher income leads to demand for better environment
  - Improvements in technique of production lead to less pressure on the environment

# Environmental Kuznets curve (EKC)

- Does increase in income always lead to a rise in emissions? Not really.
  - Scale effect (+)
  - Technique effect (-)
- Considerable empirical literature suggests:
  - At first, rising income leads to environmental degradation
  - Beyond a certain GDP level, rising income improves environment
  - Reason for this is that as people become richer, they demand a better environment.



# Sustainable development

- Major problem - no rigorous definition of sustainable development that could serve as a point of departure
  - Brundtland Commission - "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
  - a path that ensures a constant level of utility for future generations (Solow, 1974)
- Contains an inter-temporal dimension that must be reflected in the assessment methodology

## B. Quality of environmental indicators

- Data sources are of less than desirable quality and have limited country coverage;
- Data suffers from substantive gaps attributable to a lack of comparable data on a number of high-priority issues
- Lack of time-series data.
- While most environmental data are reported at the national level, it is most often at the local level – watershed, river, forest, or city – that environmental outcomes are the most relevant.

## C. Assessment tools

- Assessment tools could be broadly classified into quantitative and qualitative tools
  - Quantitative – partial or general equilibrium simulation models, regression models
  - Qualitative – expert opinion, legal analysis, chain analysis, case studies
- There is a preponderance of qualitative analysis.

## D. Lack of cost-benefit /welfare analysis

- If countries have the right environmental policies in place (all externalities are internalized), standard result will hold - trade liberalisation increases welfare.

# Suggested best practices

- Reliance on more analytic and quantitative tools
  - CGE-based analysis
- More focused sectoral studies
  - Assessment can identify “high risk” sectors for more focused analysis
- Consider broader policy situation
- Cost benefit (welfare) framework
  - Assessments can tell us how environmental indicators may change as a result of trade opening
  - But we need to go beyond this to decide whether policy (liberalization/liberalization with mitigation/no liberalization) makes economic sense

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