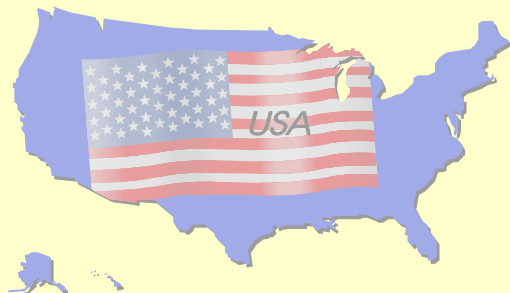


US EPA ARCHIVE DOCUMENT

# Environmental Health Indicator Development for the US-Mexico Border: Mechanisms and Efforts of Border 2012

USMBHA 63<sup>rd</sup> Annual Meeting – Laredo, Texas  
June 22, 2005

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# Presentation Outline

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- ❑ Overview of the Border 2012 Program
- ❑ Use of Indicators to Measure Progress and Track Changes in Environmental and Public Health Conditions
- ❑ Joint BITF and EHWG Achievements to Date
- ❑ Next Steps in Implementing Indicators for the Border 2012 Program

# What is Border 2012?

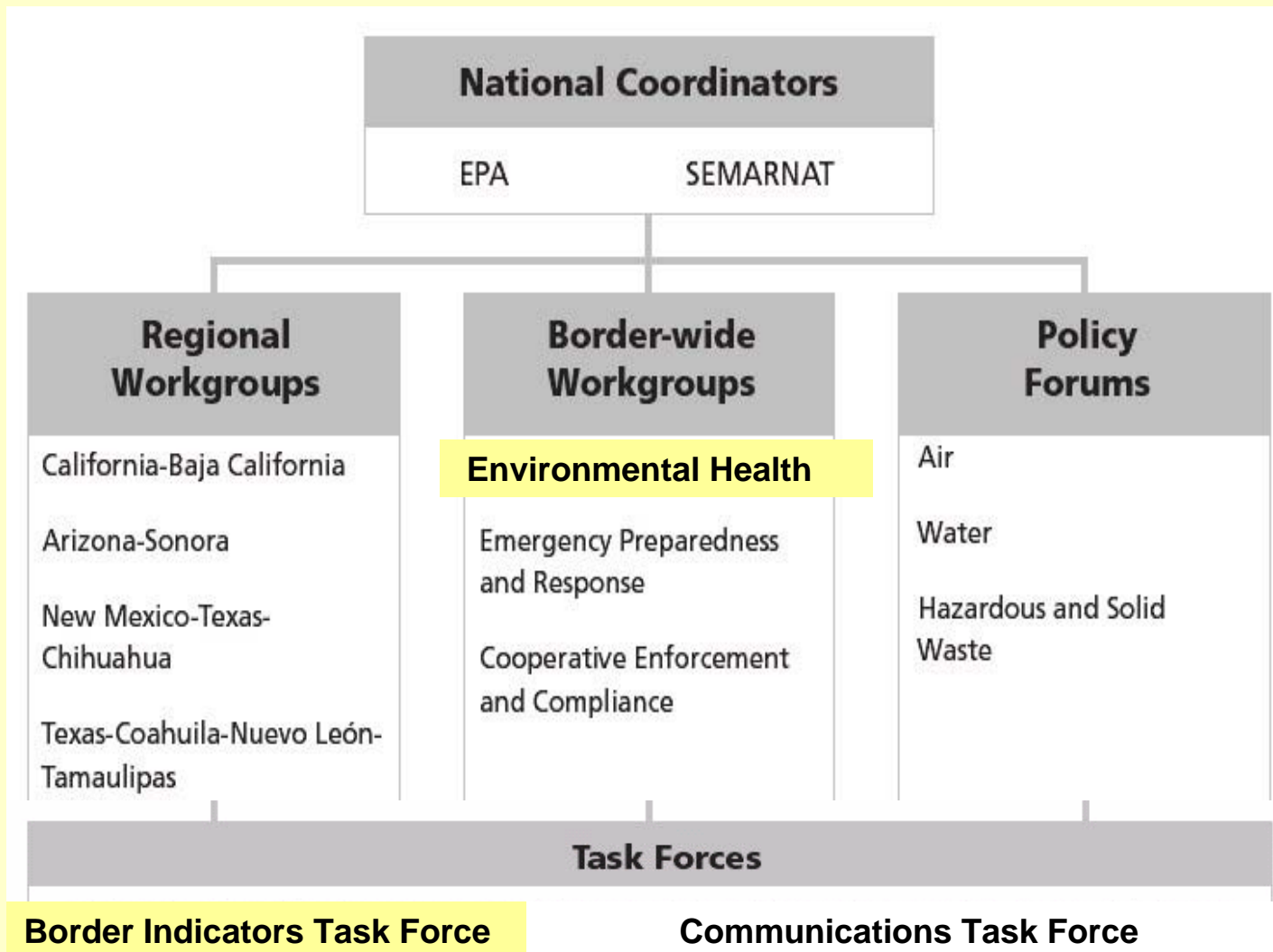
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- ❑ 10-year, binational environmental program for the U.S.-Mexico border region
- ❑ Coordinated by the US EPA and the SEMARNAT
- ❑ Latest multi-year, binational planning effort to be implemented under the La Paz Agreement
- ❑ Succeeds Border XXI, a five-year program that ended in 2000
- ❑ Partnership among federal, state and local governments in the United States and Mexico, and with U.S. border tribes

The mission of the Border 2012 program is:

**“To protect the environment and public health in the U.S.-Mexico border region, consistent with the principles of sustainable development.”**

# Border 2012 Structure



# Border Indicators Task Force (BITF)

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- ❑ Officially constituted at the National Coordinators Meeting in Matamoros, Tamps., December 2003
- ❑ Collaboratively works with Program stakeholders to build, administer and disseminate
  - a binational set of environmental and public health-based indicators that **measure progress** toward meeting Border 2012 goals and objectives and **track changes** in the region's conditions

# Why Indicators?

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## Environmental Health Workgroup Goals:

- ❑ “Evaluate various measures of respiratory health in children that might be tracked to assess changes that may result from actions to improve air quality in border communities”
- ❑ “Evaluate various measures of gastrointestinal illness...to improve water quality in border communities”

## Border Indicators Task Force mandate:

- ❑ “It is essential that all actions taken...must have real, meaningful and measurable results. Indicators of environmental progress will be developed and used to measure these results.”
- ❑ “These indicators will have specific definitions and protocols for collection, analysis, interpretation and quality control.”

# Indicator Definition

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- “An indicator, comprising a single dat[um] (a variable) or an output value from a set of data (aggregation of variables), describes a system or process such that it has significance beyond the face value of its components. It aims to communicate information on the system or process.”

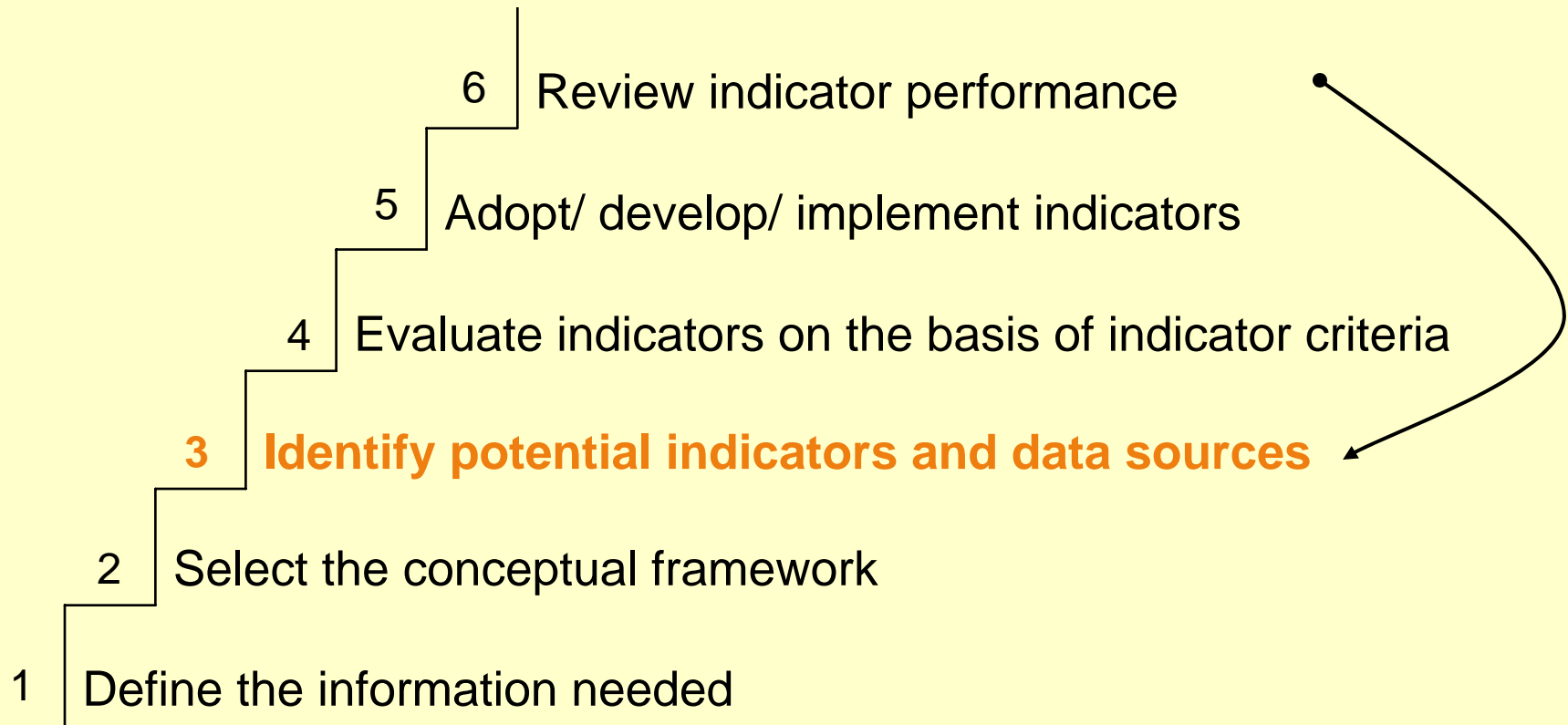
*Reference: United Nations World Water Development Report, 2003. Ch. 3, “Signing Progress: Indicators Mark the Way.”*  
[http://www.unesco.org/water/wwap/wwdr/table\\_contents.shtml](http://www.unesco.org/water/wwap/wwdr/table_contents.shtml)



# Strategy for Indicator Development

## Steps for Indicator Development

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# Define Information Needed

## Binational Set of Indicators

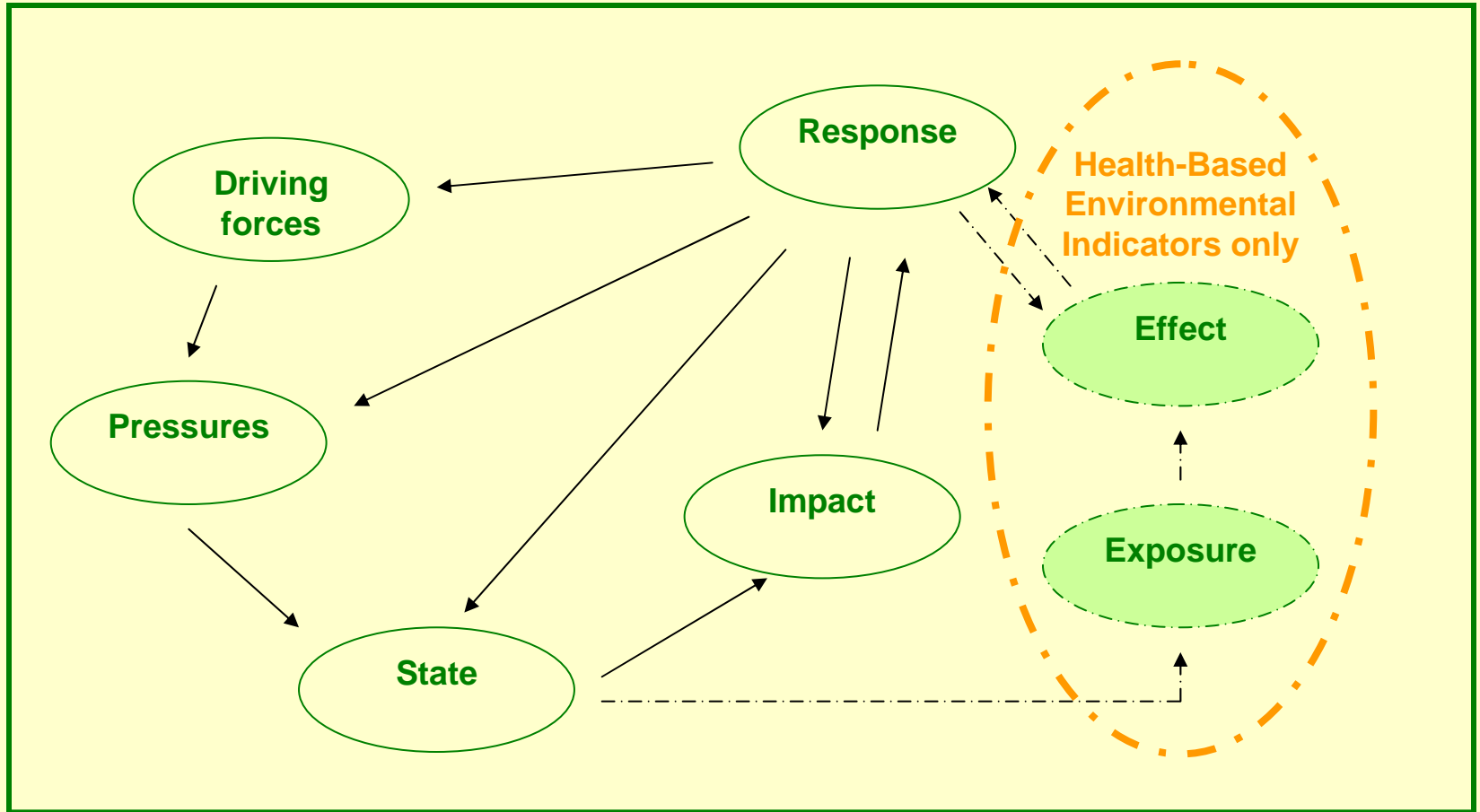
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- ❑ Both **Environmental** and **Program Indicators** for evaluating the effectiveness of the Border 2012 program in improving the region's environmental and health-related conditions over time.
  
- ❑ **Binational** indicators that provide representative, meaningful information about the six goals:
  - ❑ Water
  - ❑ Air
  - ❑ Land
  - ❑ **Environmental Health**
  - ❑ Emergency Response
  - ❑ Cooperative Enforcement and Compliance

# Conceptual Framework: DPSIR

## Driving forces-Pressures-State-Impact-Response

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# BITF & EHWG Collaboration

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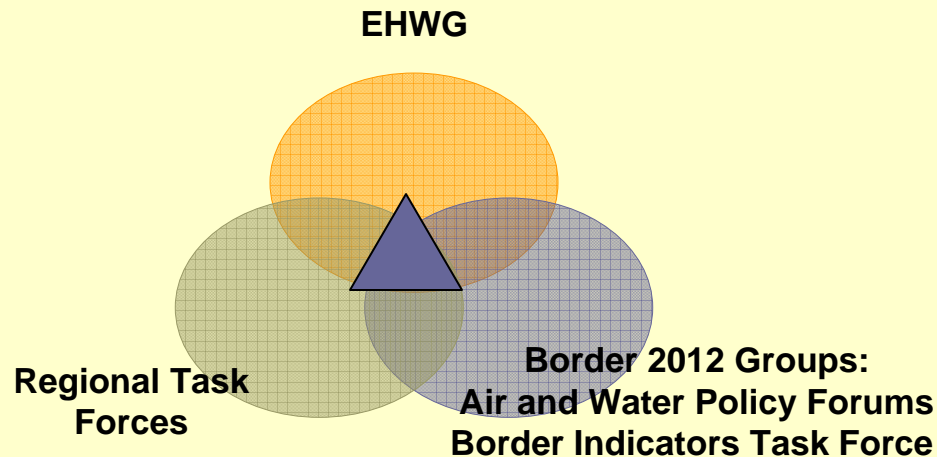
Joint Border Indicators Taskforce and Environmental Health Workgroup achievements to date:

- Drafted a *Strategy for Indicator Development for the Border 2012 Program*
- Developed a *Preliminary Set of Binational Indicators* per program goal and objective
- Funded pilot projects on health-based air environmental indicators

# Current Environmental Health Indicator Projects

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- ❑ Assess data availability and quality
  - Air monitoring
  - Water quality
  - Respiratory health surveillance
  - Gastrointestinal disease reporting
- ❑ Creation of Environmental Public Health Indicators Teams



- ❑ Development of data collection, management, and evaluation strategy

# Preliminary Health-Based Environmental Indicators

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## Air

- Asthma prevalence (<18)
- Acute Respiratory Infections (<5, morbidity rates)
- Acute Respiratory Infections (mortality rates)
- Chronic obstructive pulmonary disease (COPD) mortality

## Water

- Diarrhea (<5 , morbidity and mortality)
- Hepatitis A (<18)
- Amebiasis
- Shigellosis
- Typhoid Fever

### **PROPOSED INDICATORS SHOULD BE:**

- Relevant to Program goals and objectives
- Representative of the actions being implemented by the coordinating bodies

# Next Steps

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- ❑ Continue to assess data quality (availability and comparability) for environment and related health outcomes
- ❑ PAHO Request for Proposals to evaluate potential indicators (late summer/early fall)
- ❑ Gather data and meta-data for selected indicators
- ❑ Coordination with US-Mexico Border Health Commission
- ❑ Prepare for indicators report (Draft by Jan. 06/ Publication by National Coordinators Meeting 06)

# Thank you!

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For Further Information, Visit Us Online:

☐ <http://www.epa.gov/border2012/indicators>

☐ <http://www.epa.gov/ehwg/>