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The Maumee River Watershed and Algal Blooms in Lake Erie

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Lecture 5
Policy Responses

Policy Responses

1. Great Lakes Water Quality Agreement (GLWQA) Nutrient Annex process
2. Agreement Ohio-Michigan-Ontario
3. Great Lakes Restoration Initiative
4. Tri-state TMDL
5. Senate Bill 1
6. State-level programs

Great Lakes Water Quality Agreement (GLWQA) Nutrient Annex process

- Created by the International Joint Commission (IJC)
- First Great Lakes Water Quality Agreement: 1972.
- 1978, 1983, 1987
- Current version: 2012.
- Involves the U.S. and Canada (the parties)

What's the IJC?

- The International Joint Commission is a binational body (Canada and the U.S.) designed to foster cooperation to protect shared waters



Source: International Joint
Commission

Great Lakes Water Quality Agreement (GLWQA) Nutrient Annex process

Purpose. to coordinate binational actions to manage phosphorus concentrations and loadings, and other nutrients if warranted, in the Waters of the Great Lakes.

GLWQA Nutrient Annex Objectives.

- To minimize hypoxic zones in the Great Lakes associated with excessive phosphorus loading, with particular emphasis on Lake Erie;
- To maintain the levels of algal biomass below the level constituting a nuisance condition;
- To maintain cyanobacteria biomass at levels that do not pose a threat to human or ecosystem health in the Great Lakes;
- To maintain mesotrophic conditions in the open waters of the western and central basins of Lake Erie, and oligotrophic conditions in the eastern basin of Lake Erie.

GLWQA Annex Substance Objectives.

“To achieve Substance Objectives for phosphorus concentrations, the Parties shall develop phosphorus loading targets and allocations for each Great Lake”

- **Interim Phosphorus Load Targets** (Metric Tonnes Total P Per Year)
- Lake Superior 3400
- Lake Michigan 5600
- Main Lake Huron 2800
- Saginaw Bay 440
- Lake Erie 11000
- Lake Ontario 7000

GLWQA Annex Programs and Other Measures

- The Parties shall develop and implement:
 1. Programs to reduce phosphorus loading from urban sources, industry, agricultural and rural non-farm point and non-point sources
 2. New approaches and technologies for the reduction of phosphorus from wastewater, storm water discharge, and other urban sources;

GLWQA Annex Programs and Other Measures (continued)

- The Parties shall develop for Lake Erie, within five years of entry into force of this Agreement, phosphorus reduction strategies and domestic action plans to meet Substance Objectives for phosphorus concentrations, loading targets, and loading allocations apportioned by country.
- DAPs should be ready by 2018

Agreement Michigan-Ohio-Ontario

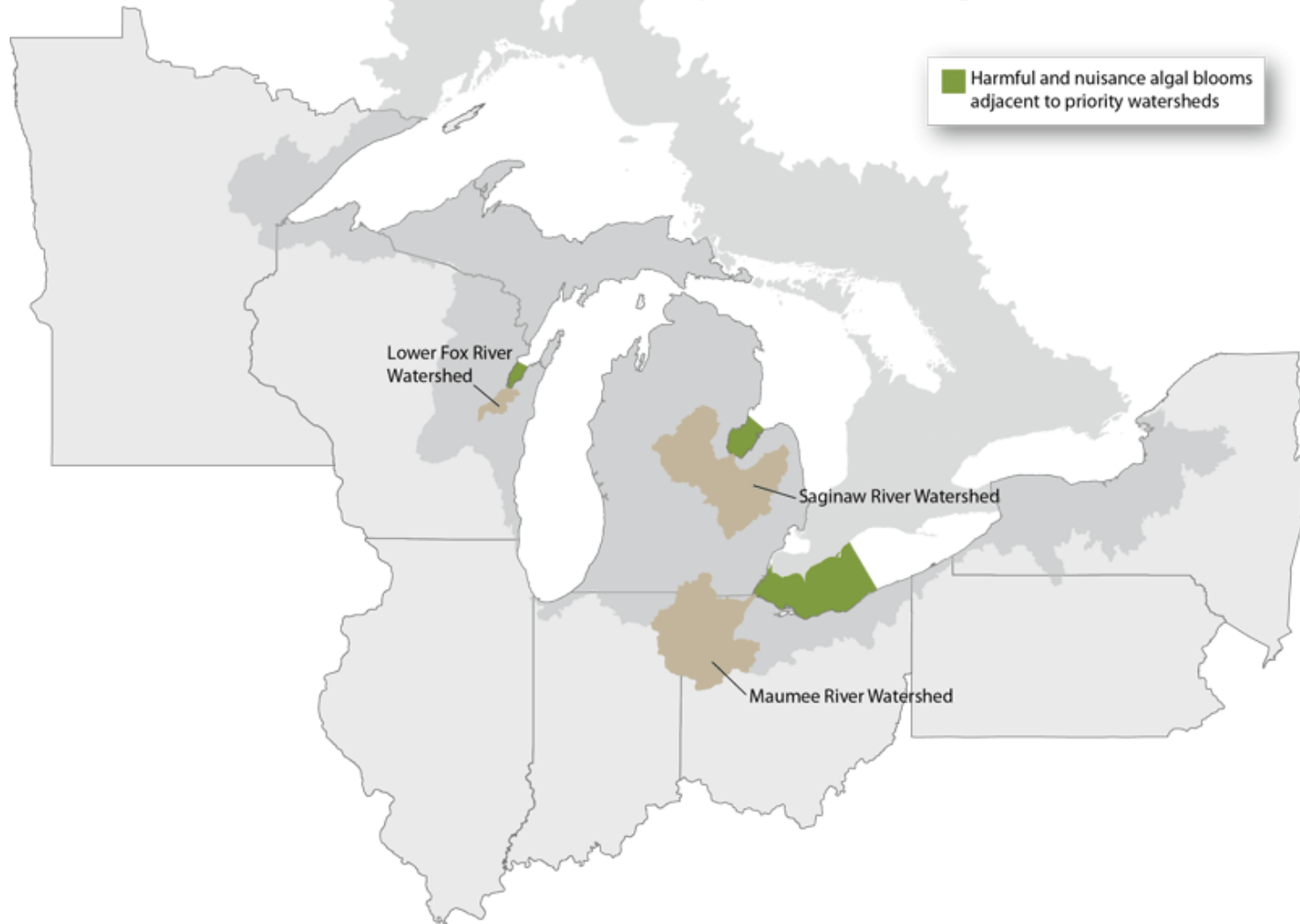
- In June of 2015, the states of Ohio and Michigan signed an agreement with the Canadian Province of Ontario to reduce phosphorous loads to Lake Erie by 40% by 2025.
- This goes in line with the GLWQA, which also suggests reducing loads by 40%

Great Lakes Commission: A Joint Action Plan for Lake Erie

- GLC is formed by the eight US states that share the Great Lakes, plus the provinces of Ontario and Quebec (as associate members)
- The Joint Plan (released in September of 2015) follows in line with the goal of reducing phosphorus by 40% in 2025, reaching 20% by 2020.
- Joint actions:
 1. Reduce nutrient application on frozen or snow-covered ground
 2. Adopt 4r Nutrient Stewardship Certification programs
 3. Accelerate investments in green infrastructure
 4. Reduced open-water disposal of dredged material
 5. Phase out residential phosphorus fertilizer application

Great Lakes Restoration Initiative

Great Lakes Restoration Initiative Priority Watersheds During 2010-2014



Tri-state phosphorus TMDL

The IJC has recommended that the governments of Michigan and Ohio, “under the US Clean Water Act, list the waters of the western basin of Lake Erie as impaired because of nutrient pollution; this would trigger the development of a tri-state phosphorus total maximum daily load (TMDL) involving those states and Indiana, with US EPA oversight (IJC, 2014).”

Source: EPA



SB-1 (the “Ohio Nutrient Law”)

- Applies to western Lake Erie basin (11 watersheds)
- Farmers are prohibited from spreading manure if there’s more than a 50% chance of ½ inch of rain within 24 hours.
- They’re not to spread fertilizer if there’s more than a 50 % chance of a rain exceeding 1 inch, within 12 hours.
- Requires Publically Owned Wastewater Treatment Works (POTWs) not subject to phosphorus limits to evaluate their ability to reduce discharges, and other actions related to reducing nutrient loads to Lake Erie
- Prohibits dumping of dredge material in the open lake by 2020

Ohio Soil and Water Conservation Districts

- 88 soil and water conservation districts (SWCD) –One in each county
- SWCDs are governed by a board of five county residents (elected for 3-year terms)
- Primary mission: provide landowners and land users with technical assistance and education on how to implement sustainable best management practices.

State Programs

- OEPA's **Surface Water Improvement Fund**: “provide grant funding to applicants such as local governments, park districts, conservation organizations and others”
- ODNR's **Watershed Coordinator grant program**: provides funding for permanent positions in local government, non-profit organizations or other organizations to prepare and implement a Watershed Action Plan (WAP) to restore or protect a water resource
- ODA's **Livestock Environmental Permitting**: regulatory program that grants permits to install and operate livestock facilities in the state of Ohio.

Type of policy instruments

- What type of instrument are most of these?
 1. Regulatory Instruments
 2. Market-Based Instruments
 3. Informational Instruments
 4. Voluntary Instruments



Lecture 6
How to design a policy brief

How to Write a Policy Brief

- What is a policy brief?
- Brief preparation
- Writing the brief
- Brief critique
- Begin your journey

What Is a Policy Brief?

- A document created to convince the target audience of the urgency of a current problem and the need to adopt an alternative policy or course of action to address that problem
- NOT a policy paper

What Is a Policy Brief?

Common Structural Elements

- Title
- Executive Summary
- Context and Importance of Issue
- Critique of Current Policy
- Critique of Alternative Policy Options
- Recommendations (Optional)
- Conclusion
- References

What Is a Policy Brief?

Who Reads These Things?

- Decision makers
- General knowledgeable audience
 - Journalists
 - Diplomats
 - Administrators
 - Researchers

What Is a Policy Brief?

Effective Policy Briefs

- Focused
- Evidence-based
- Limited
- Succinct
- Understandable
- Promotional
- Practical and feasible

Brief Preparation

Define the Issue

- Clearly state the problem
- Define the extent of the problem
- Why is this a policy issue?

Brief Preparation

Identify Stakeholders

- Who are the stakeholders?
- What are the stakeholders' positions on the issue?
- What resources are available to stakeholders?
- What actions have stakeholders taken?

Brief Preparation

Lay Out the Issue Chronology

- How did the issue emerge?
- How has the issue evolved to the present?
- How will the issue evolve under the status quo?

Brief Preparation

Describe Policy Status Quo

- Describe major existing policies affecting your issue
- Critique existing policies

Brief Preparation

Identify Policy Alternatives

- Identify all major policy alternatives
- Critique those alternatives

Brief Preparation

Set Your Tone

- Objective – provide a targeted discussion of the current policy alternatives without arguing for one in particular
- Advocate – focus directly on providing an argument for the adoption of a particular alternative

Writing the Brief

Common Structural Elements

- Title
- Executive Summary
- Context and Importance of Issue
- Critique of Current Policy
- Critique of Alternative Policy Options
- Recommendations (Optional)
- Conclusion
- References

Writing the Brief

Title

- Make it descriptive
- Make it eye-catching
- Make reader want to continue reading

Writing the Brief

Executive Summary

- Description of the problem addressed
- Statement on why the current approach/policy needs to change
- Brief overview of policy alternatives
- Your recommendation(s) for action
- ***WRITE THIS LAST!***

Writing the Brief

Context and Importance of Issue

- Give a clear statement of the problem or issue in focus
- Provide a short overview of the root causes of the problem
- Select contextual information relevant to your argument and your audience → be strategic
- ***STRESS IMPORTANCE OF YOUR ISSUE!***

Writing the Brief

Critique of Current Policy

- Give a short overview of current policy affecting your issue
- Provide an argument illustrating why and how the current approach is failing is failing
- Remember: Current policy can be that there is no policy!

Writing the Brief

Critique of Alternative Policy Options

- Delineate possible policy alternatives (minimum 3, maximum 5) decision makers could pursue
- Clearly argue why these alternatives are better than the status quo

Writing the Brief

Policy Recommendations

- Advocate for a specific policy or a subset of policies
- Provide a breakdown of the specific next steps or measures needed to implement the policy recommendation

Writing the Brief

Conclusion

- Restate the issue
- Briefly summarize why existing policy is inadequate
- Provide *quick* overview of policy alternative
- Advocate for recommended policy alternative (optional)
- ***ONE BRIEF PARAGRAPH!***

Writing the Brief

References

- Cite within text
- List full references at the end
- Choose a format: APA, MLA, Turabian, Chicago, etc.

Writing the Brief

Tables, Figures, & Text Boxes

- Be judicious → choose visuals that enhance your text
- Includes captions that would allow figure to stand alone
- Use text boxes to define terms or explain concepts introduced in text

Writing the Brief

Layout and Design

- Use publishing software (e.g. Microsoft Publisher)
- Two columns, single-spaced
- 12 point text, reasonable font
- Minimize white space
- Use color

Writing the Brief



Policy Brief

Date

Title of the Paper: subtitle if necessary

Executive Summary CARE has been operating in Indonesia since 1967, initially working in food distribution, small infrastructure projects, health, the environment, and water and sanitation. CARE has been operating in Indonesia since 1967, initially working in food distribution, small infrastructure projects, health, the environment, and water and sanitation. CARE has been operating in Indonesia since 1967, initially working in food distribution, small infrastructure projects, health, the environment, and water and sanitation. CARE has been operating in Indonesia since 1967, initially working in food distribution, small infrastructure projects, health, the environment, and water and sanitation. CARE has been operating in Indonesia since 1967, initially working in food distribution, small infrastructure projects, health, the environment, and water and sanitation.

Introduction

Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters. Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters.

Context and Importance of Problem

Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters. Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters.

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Critique of Policy Option(s)

Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters. Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters.

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Key Points

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Policy Brief

Title of the paper: subtitle if necessary

Figure 1.
Explanation of figure one



Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters. Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps

Policy Recommendations

Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters. Indonesia is a disaster-prone region, suffering from recurrent shocks such as earthquakes, drought and internal conflict. By incorporating disaster risk reduction methods into our programming, CARE helps people develop sustainable methods to prepare for, respond to and reduce the impact of disasters.

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Appendices

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Sources Consulted or Recommended

- Source number one
- Source number two
- Source number three
- Source number four
- Source number five
- Source number six

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