

Promoting Youth and Adult Global Water Awareness, Literacy, & Conservation Behavior: Challenges and Opportunities

Water, Wetlands, & Watersheds Seminar
Series

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Why is **global water**
education important?

When the well is dry, we
know the worth of water.

**BENJAMIN FRANKLIN, Poor Richard's
Almanac, 1746**

Children of a culture born in a water-rich environment, we have never really learned how important water is to us. We understand it, but we do not respect it.

WILLIAM ASHWORTH, Nor Any Drop to Drink, 1982

Why is “water” an issue?

- Undecided
- Multiple perspectives
- Controversial

Why is water a “global” issue?

Defining “global” issues:

1. Transboundary
2. Significant impacts
3. Persistent/long-acting
4. Interconnected

3 Facets of Global Education Programs

1. ISSUE AWARENESS

2. PERSPECTIVES

3. EMPOWERMENT

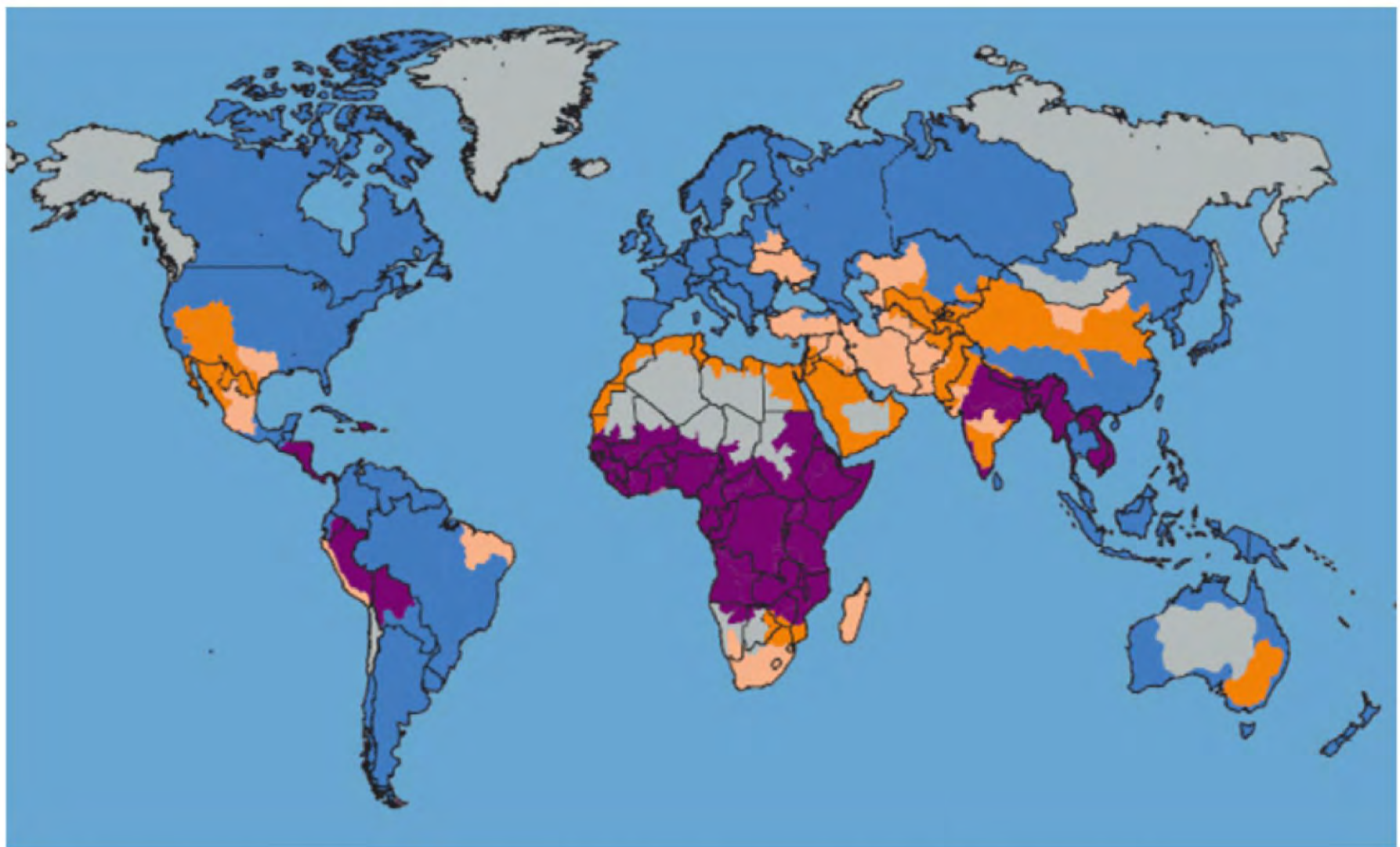
Issue Awareness Approaches- Warm-Ups

1. Sense of Place Activities
2. Trivia

What do maps show?

Compare these 2 maps.

Does bottled water
consumption reflect actual
water scarcity in the world?



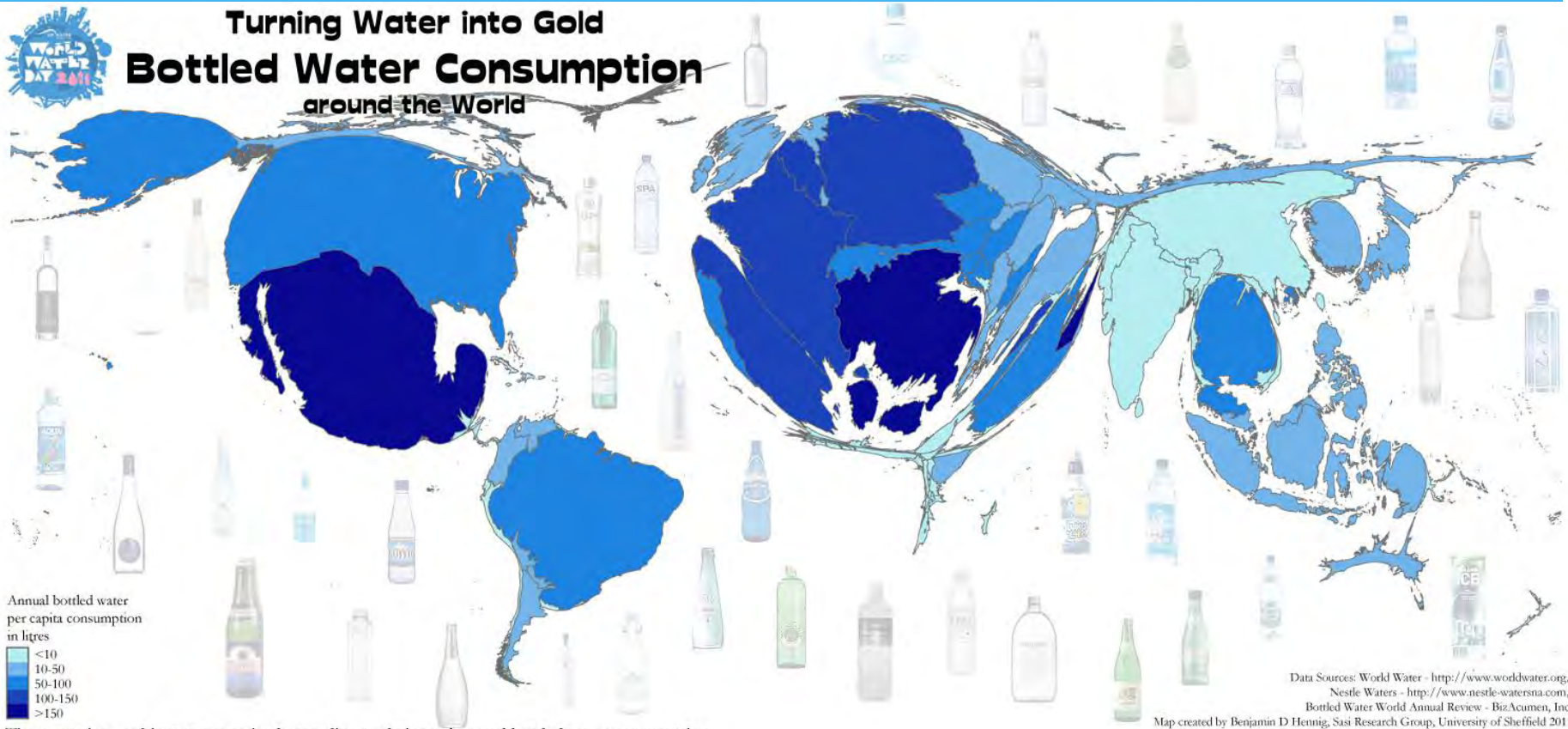
■ Little or no water scarcity ■ Approaching physical water scarcity ■ Not estimated
■ Physical water scarcity ■ Economic water scarcity



Turning Water into Gold

Bottled Water Consumption

around the World



The countries on this map are resized according to their total annual bottled water consumption

Data Sources: World Water - <http://www.worldwater.org/>
Nestle Waters - <http://www.nestle-watersna.com/>
Bottled Water World Annual Review - BizAcumen, Inc.
Map created by Benjamin D Hennig, Sasi Research Group, University of Sheffield 2011
www.viewsoftheworld.net

What is your global freshwater IQ?

1. Since 1900, what percent of the world's wetlands have disappeared?

>50%

2. What fraction of the world's population will be living under severe water scarcity by 2030 if no new policies are introduced and implemented?

Almost half

What is your global freshwater IQ?

3. By 2050, how much will we need to increase irrigation to grow enough food to meet the demands of a global population of 9 billion people?

Irrigation of crops will need to double by 2050

4. In the 21st century, what resource is projected to be the MOST impacted by climate change?

Fresh water: Less water will be stored in ice and snow and more extreme weather events will cause more droughts and floods

What is your global freshwater IQ?

5. What fraction of the world's electricity is produced by rivers?

More than one-fifth

6. How many people globally have been directly and negatively impacted by dams?

Nearly 500 million people

What is your global freshwater IQ?

7. Worldwide, how many people die each day from water-related illnesses?

14,000 die each day from water-borne diseases, dehydration from lack of water, & diseases from vectors that breed in water

8. How many people on earth still do not have access to clean, safe drinking water?

More than 1.2 billion people

What is your global freshwater IQ?

9. Which group of species is declining at a faster rate worldwide?

- A. Marine species
- B. Freshwater species
- C. Terrestrial species

Freshwater species are declining at a faster rate than either terrestrial or marine species.

What is your global freshwater IQ?

10. What % of their annual incomes do the average American and the average Honduran spend on water?

Average American spends 0.5% of his/her annual income on water.

Average Honduran spends 25% of his/her annual income on water.

Perspectives Activities

1. Simulations
2. Role Plays

Example: GENERAL RESOURCE MODEL

- * Impact of any population on the environment is a product of:
 - * Damage done by the Technology used
 - * Level of Affluence
 - * Population size

GENERAL RESOURCE MODEL

$$* I = T \times A \times P$$

* T = Technological efficiency

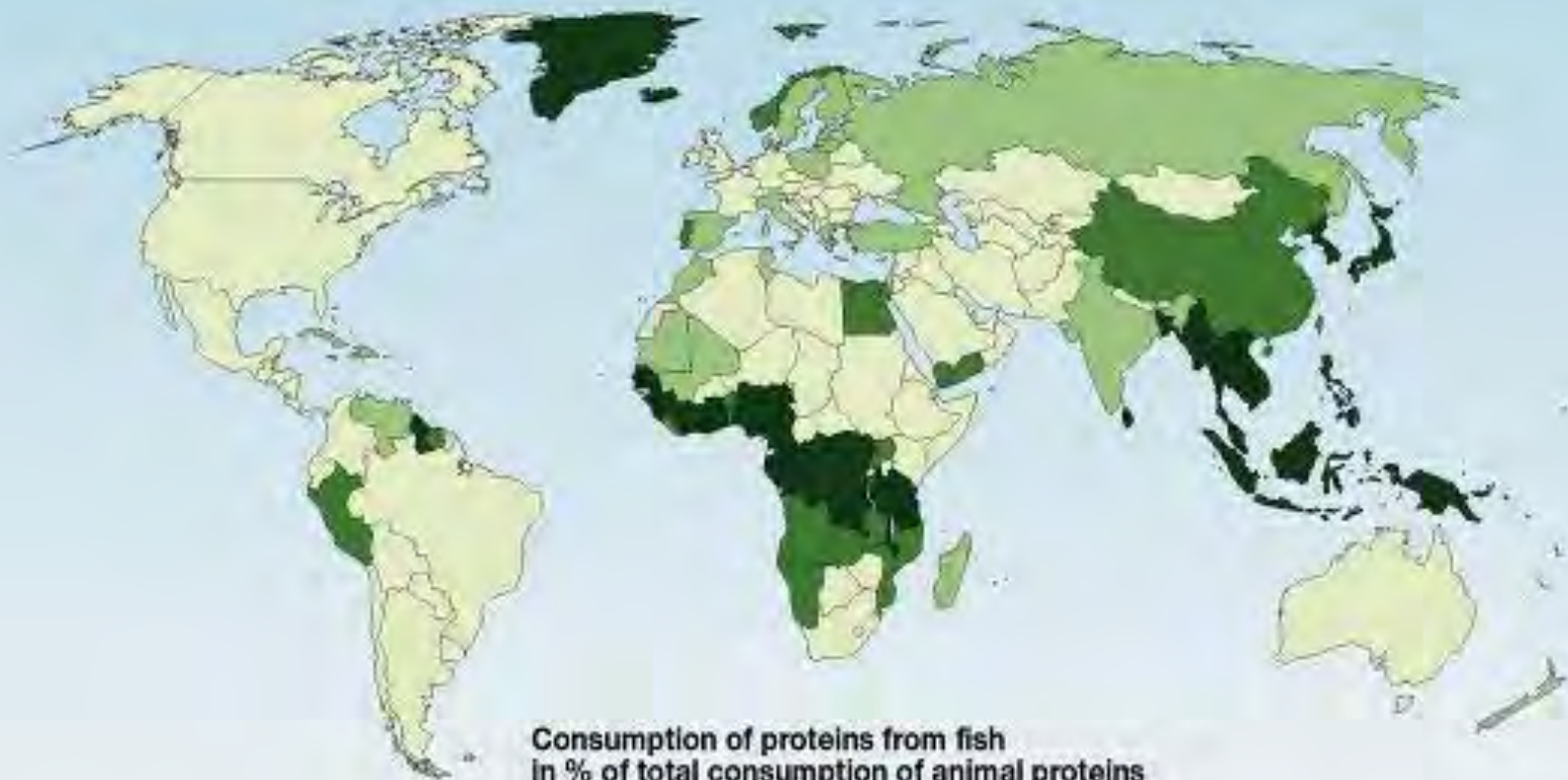
* A = Per capita GNP

* P = Number of humans

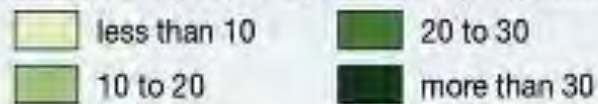
* Simulation: Fishing for the Future







**Consumption of proteins from fish
in % of total consumption of animal proteins**



PIERRE BEKACEWICZ
MARCH 2008

Source: Earthtrend database, World Resources Institute (WRI), Washington ; Faostat, Food and Agriculture Organization of the United Nations (FAO).

Empowerment (Action) Activities

1. Individual
2. Group

Individual Action Approaches

1. Personal audits/lifestyle analyses/footprint calculators
2. Action commitment forms-water use, consumerism
3. Educating others

Group Action Approaches

1. Participating in Events

- World Water Monitoring Day
- World Water Day-Solutions for Water

Group Action

2. Fundraising for Global Water NGOs

- Charity Water
- Water without Borders
- The Water Project
- Water is Life (lifestraw)
- Water.org (Matt Damon)

Group Action

3. Implementing local water-related service learning projects with a “global” connection

- Clean-ups
- Wetland restoration projects
- Water conservation projects