

Implications for Nations of the Commodification of Water

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*Gabriel Eckstein
Professor of Law, Texas A&M University
Director, International Water Law Project*

Water as an Economic Good

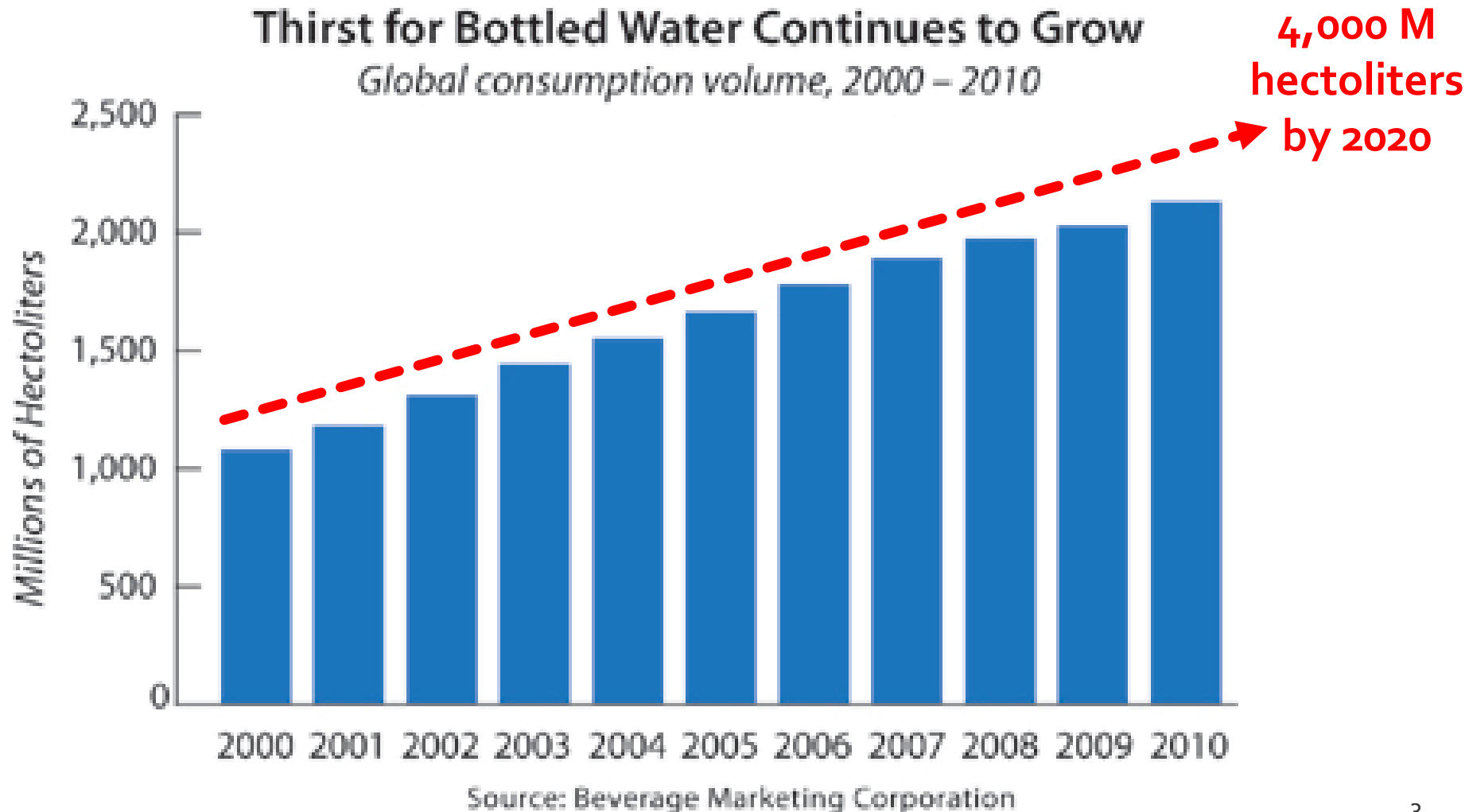
The Global Debate
Right to Water
vs.
Market Management

The Reality

- Bottled Water
- Bulk Water
- Virtual Water



Water as an Economic Good: Bottled Water



Water as an Economic Good: International Bulk Water Transfers



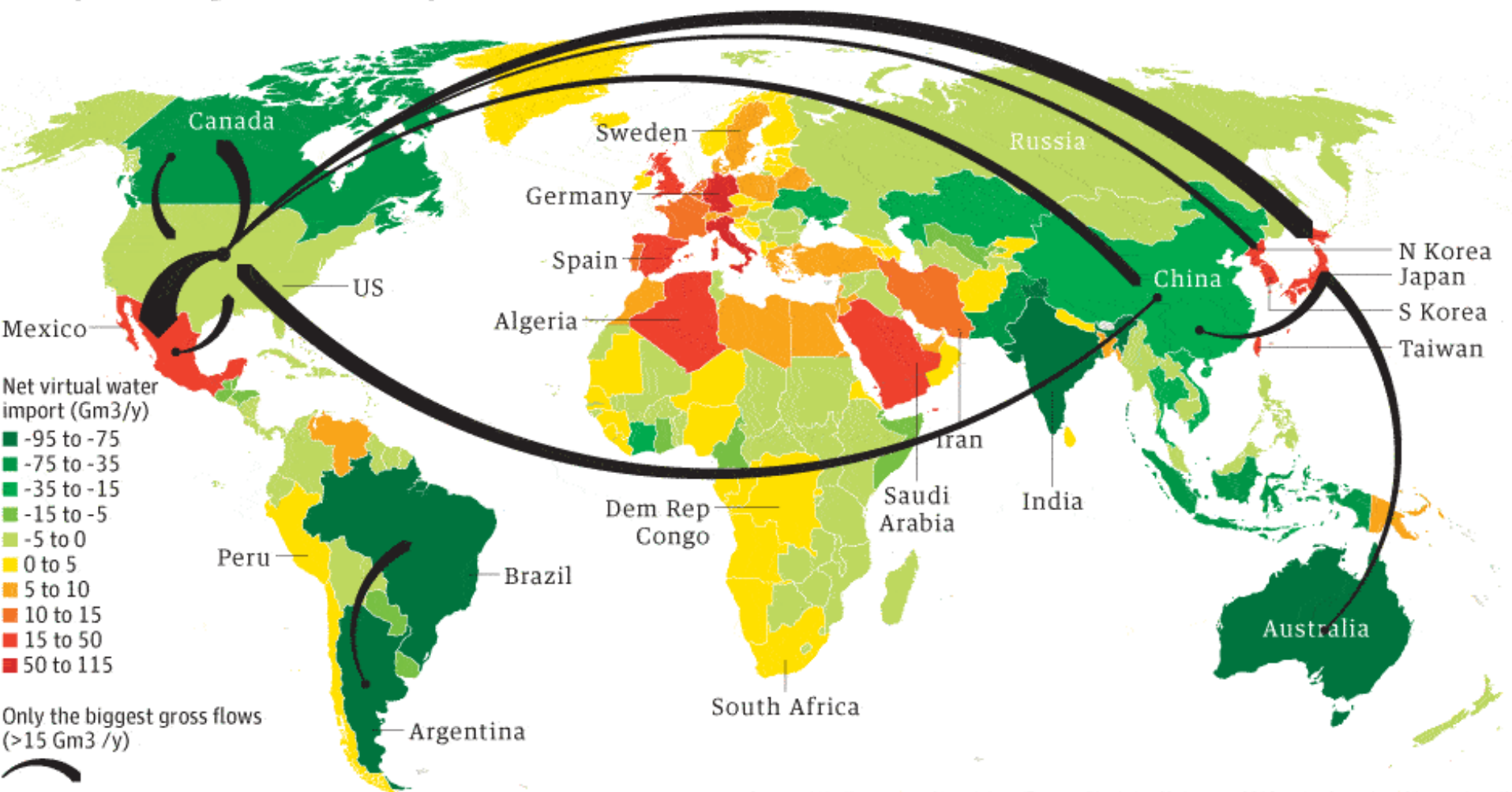
Turkey-Cyprus Undersea Water Pipeline



Singapore-Malaysia Water Pipeline

Water as an Economic Good: Virtual Water

The exports and imports of water through food and commodities, 1996-2005

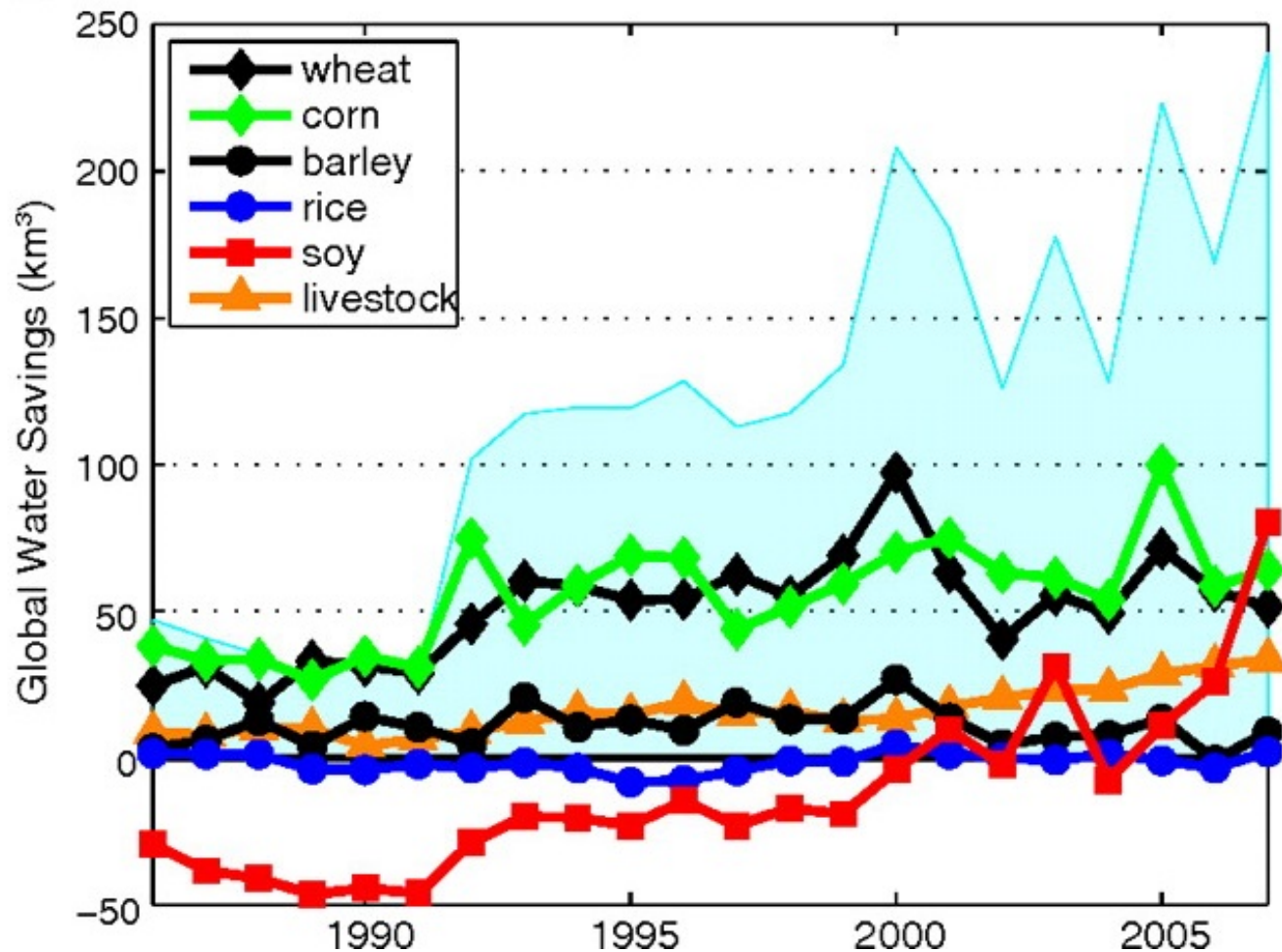


Trade Implications



Overall global water savings based on trade in virtual water

- 4% in 2000
- 9% in 2007



Dalin C et al. PNAS 2012; 109:5989-5994
doi: 10.1073/pnas.1203176109

Trade Implications



Table 1. Examples of nations with net water saving as a result of international trade in agricultural products. Period 1997-2001.

Country	Total use of domestic water resources in the agricultural sector ¹ (10 ⁹ m ³ /yr)	Water saving as a result of import of agricultural products ² (10 ⁹ m ³ /yr)	Water loss as a result of export of agricultural products ² (10 ⁹ m ³ /yr)	Net water saving due to trade in agricultural products ² (10 ⁹ m ³ /yr)	Ratio of net water saving to use of domestic water
China	733	79	23	56	8%
Mexico	94	83	18	65	69%
Morocco	37	29	1.6	27	73%
Italy	60	87	28	59	98%
Algeria	23	46	0.5	45	196%
Japan	21	96	1.9	94	448%

Trade Implications



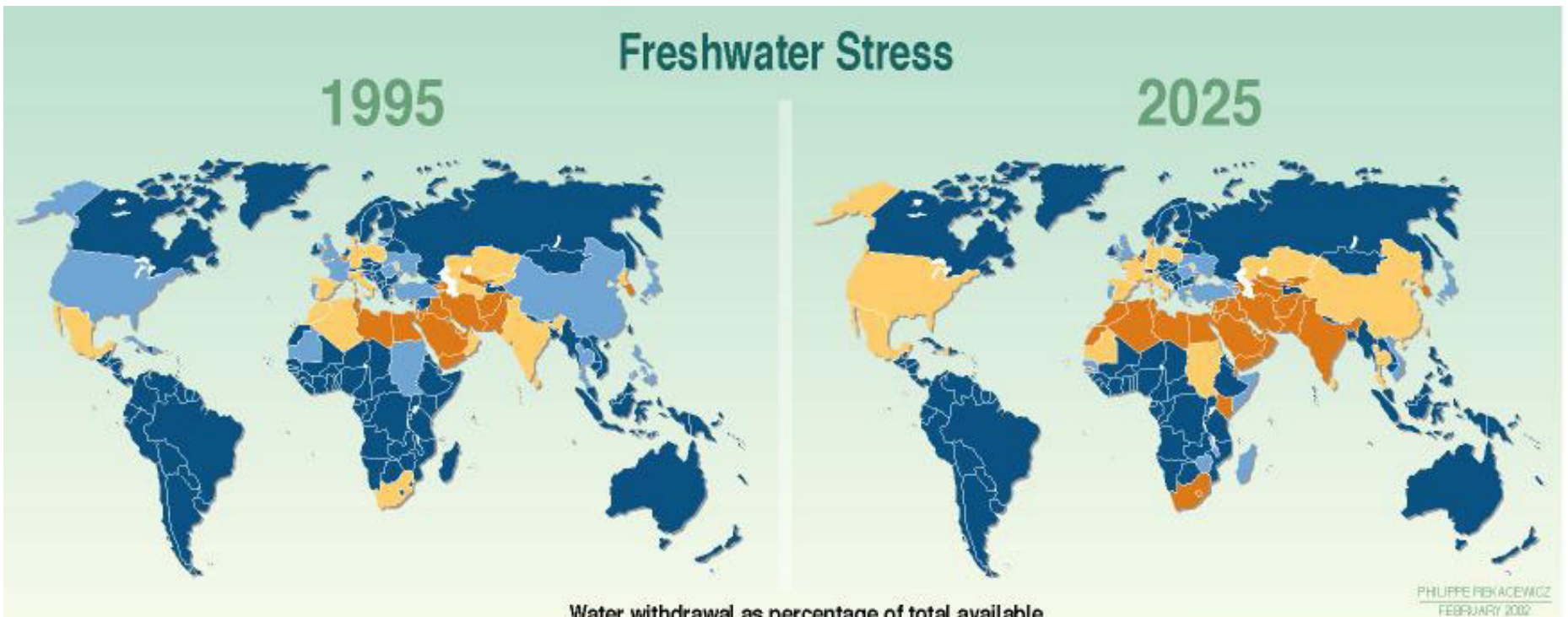
Importing Country

- Dependency
 - National security risk
 - Failure to develop backup in the event of market failure or drought in exporting country
- Effect on domestic agriculture
- Greater urbanization due to reduced agricultural activities
- Inability to afford imports

Exporting Country

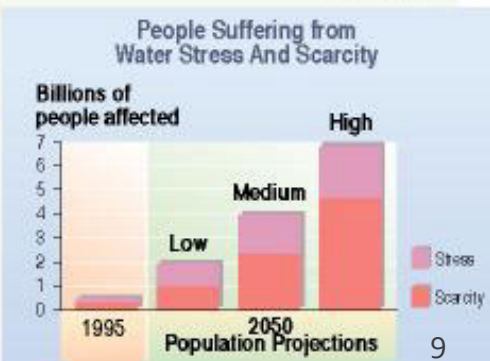
- Increased water demand
- Decrease in water available for environmental and domestic purposes

Local/regional water stress



Source: World Meteorological Organisation (WMO), Geneva, 1996; Global Environment Outlook 2000 (GEO), UNEP, Earthscan, London, 1999.

Source: <http://www.unep.org/vitalwater/25-waterstress-world.htm>



Trade Implications

Exporting Country (cont.)

- GATT = International system for regulating trade in goods and products and maintaining fairness in trade
- Is water a good or product under GATT rules? If yes:
 - Art. XI (parag. 1)
 - Prohibits measures (s.a. export restrictions) other than “duties, taxes and other charges”
 - Prohibits discrimination among domestic and foreign products, investors, and trading partners
- Exception to the Rules
 - Art. XX(b) Exception = “**necessary** for the protection of human, animal or plant life or health”
 - Art. XX(g) Exception = “relating to the conservation of **exhaustible natural resources** if such measures are made effective **in conjunction** with restrictions on domestic production or consumption”

Trade Implications

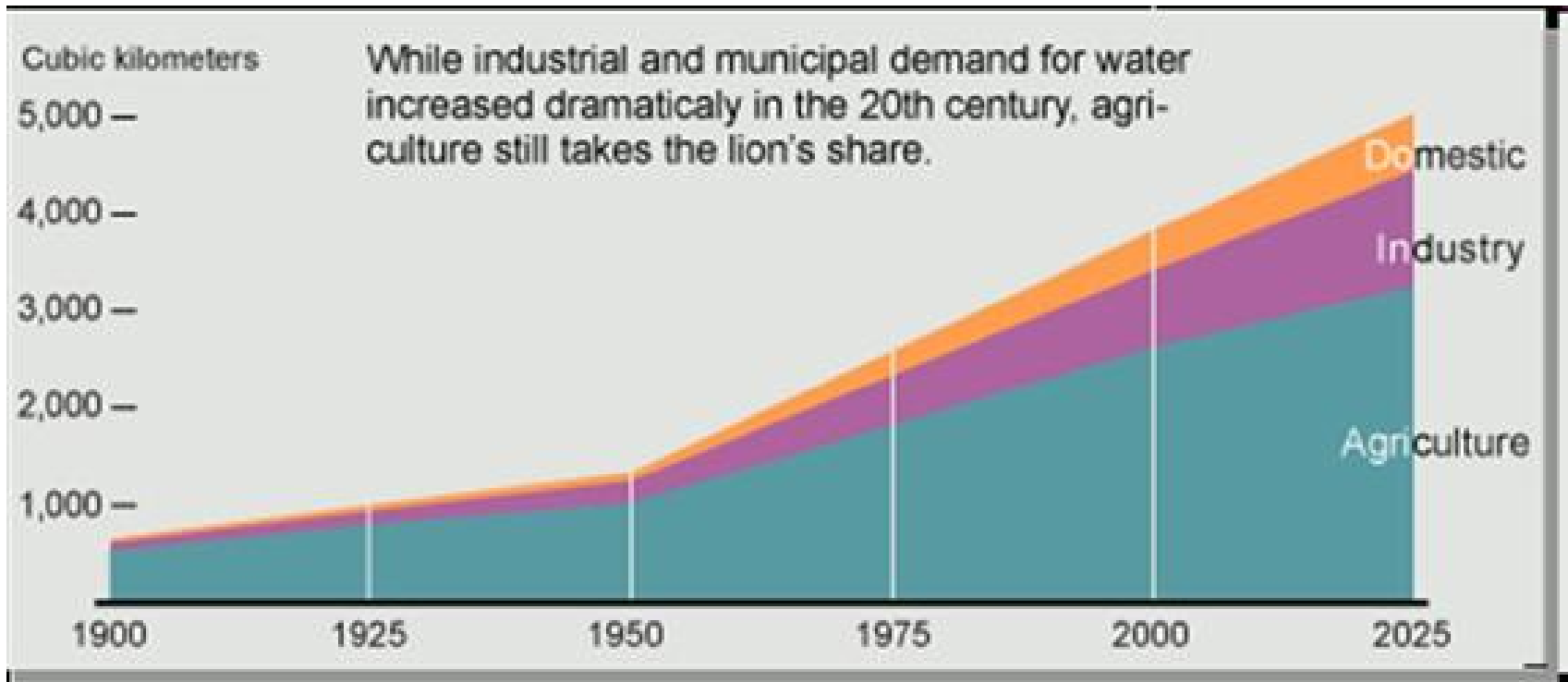
Exporting Country (cont.)

- GATT (and other trade agreements) = If water is treated as a commodity (*cont.*)
 - Art. XX Chapeau = exceptions must not be “applied in a manner which would constitute a means of ***arbitrary or unjustifiable discrimination*** between countries where the same conditions prevail, or a ***disguised restriction on international trade***”

Water as an Economic Good: Way Forward

- Balanced approach that recognizes
 - Water does has an economic value
 - BUT, water is *unique* from other natural resources and has non economic values (social, cultural, religious) that must be taken into account
- Commodified when packaged as beverage or captured within other commodities (virtual water)
- Exclude bulk water from GATT (and other trade agreements) to allow domestic restrictions based on domestic criteria and values

Thank you!



Gabriel Eckstein
Professor of Law, Texas A&M University
Director, International Water Law Project

gabrieleckstein@law.tamu.edu
www.InternationalWaterLaw.org