

Water, Trade and MEAs

Tim Swanson
Graduate Institute
Geneva

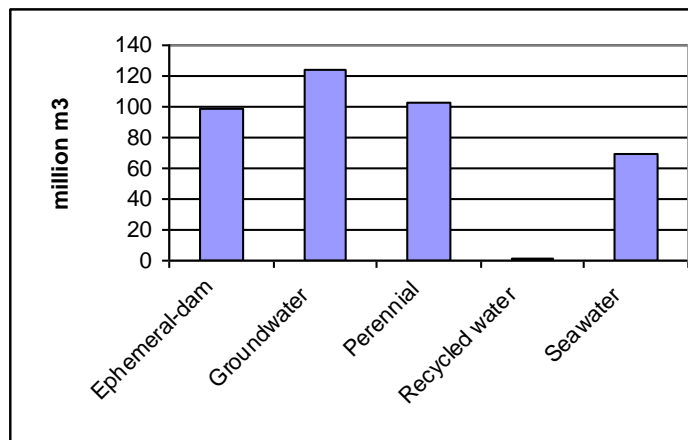
Summary

- Water: Predictable Impacts of Vested Interests in Domestic Water Management
- Trade: Incorporating Good Water Management as a Principle in Constructive Trade Regime
- MEA: Development of an Agreed Set of Water Pricing Principles as “Good Management”

A. Water -Typical Water Management Problem

- Several Competing Users (residential, industrial, tourism, agriculture)
 - Different Points in Time (e.g. Cyprus – uplands, lowlands, wetlands, shorelands)
 - Different Rights in Water
 - Difficulty in Rationalising the Regime
- Look at Case Study in Namibia
(Earth Institute– Lange)

Water supply by natural source in Namibia, 2001/02



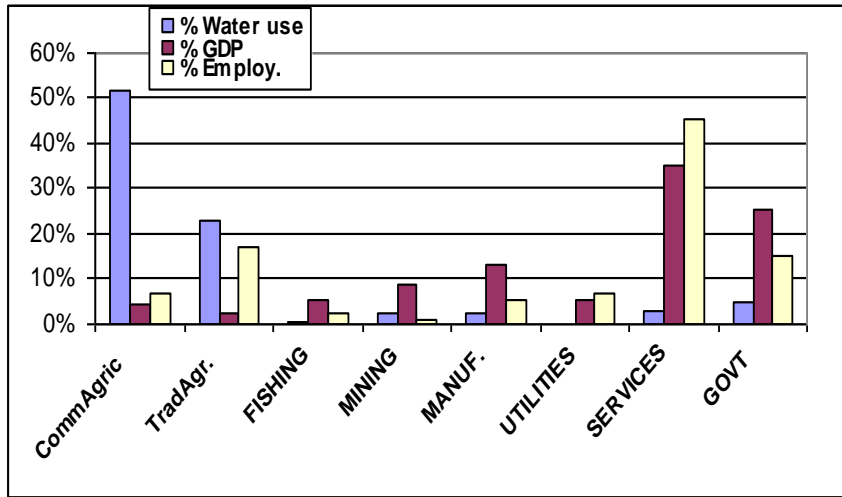
Total water supply: 395 Mm³

Total freshwater: 326 Mm³

Some groundwater from fossil sources.
Nationally small, <5% of water use.
Locally, 100% with few alternatives.

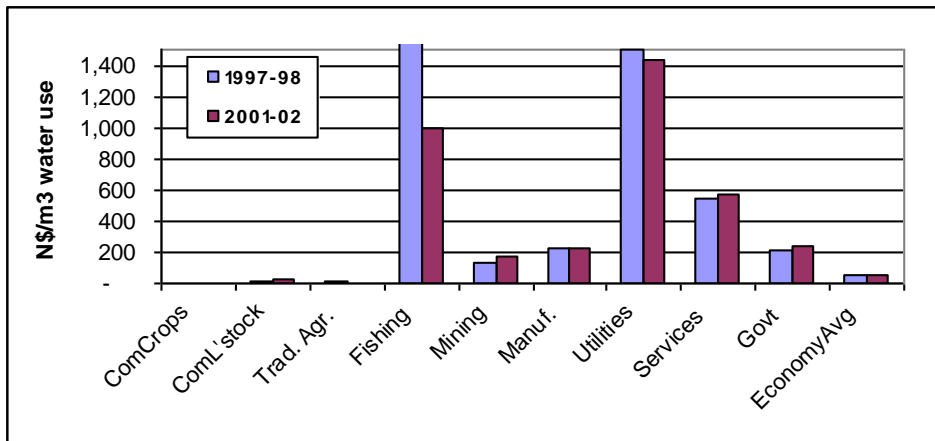
INDUSTRY-LEVEL TRENDS: ENVIRONMENTAL ECONOMIC PROFILE

Distribution of water use, GDP & employment by industry in Namibia,
2001

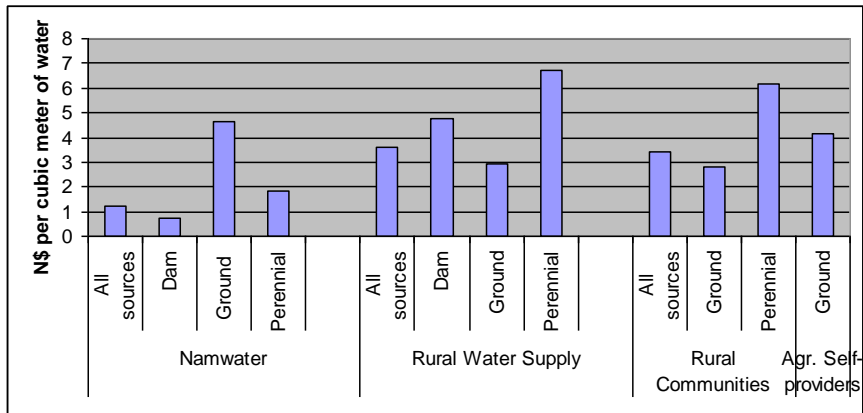


Water Productivity by Industry in Namibia, 1997 & 2000:

GDP per m³ water use (constant 1995 prices)



Average cost of supply by Institution and source of water in Namibia, 2000

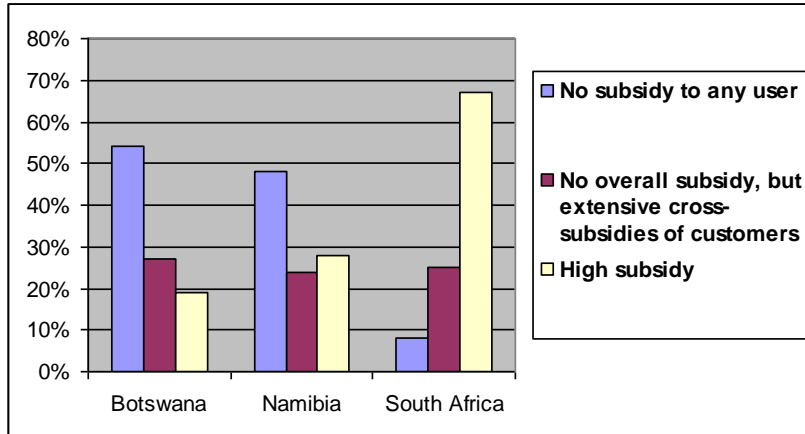


Water Subsidies by NamWater, the bulk water supplier

(provides 40% of all water; Tariffs – Supply Costs)

	Tariff-Supply Cost \$/m3 water use	Water Productivity \$/VA/m3 water
Crop irrigation	-3.04	0.99
Livestock	0.02	20.86
Mining	0.00	52.72
Manufacturing	0.99	226.56
Construction	-2.21	1774.40
Services	-2.40	575.31
Government	-0.66	234.19
Sales to other water suppliers	0.68	NA

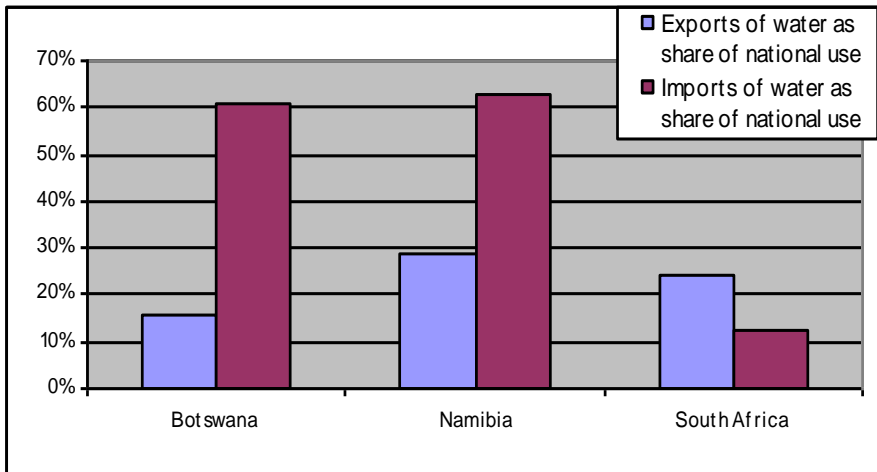
Water subsidies in Botswana, Namibia and South Africa, 2000



International Trade & Water Use

Are water-scarce countries exporting water?

Net imports of water in Botswana, Namibia, South Africa in 1998



B. Good Water Management and Poor Water Management

“Good Water Management”

Price equal to all uses and users

Price equal to MC of supply of water in that country

Users allocate water between uses through MVP

→ MVP of each use in country equated to MC

Difficulty in Moving to Good Practice

- Prior Rights and Prior Systems Create Vested Interests
- Prior Rights create allocations that distort production and distort trade
- Political Systems too often depend more on Rights Systems than determine the Rights Systems

Water Agreement as Water Pricing Principles Agreement

- Adoption of definition of “Good Domestic Water Management Regime”
- Based on Sound Economic Principles of MC of Supply and MVP of Each Use
- Agreement to Implement Water Pricing in Accordance with Principles of Efficient MC Pricing Across All Uses and All Users
- Provision for Income Based Subsidies Rather than Water Subsidies to Provide for Low Income Users

C. MEAs as Constructive Trade Regimes

- Environment and Trade Regimes Need to Evolve to become “Constructive Trade Regimes” (e.g. CITES, Basel, ~MontProt)
- Constructive Trade Regime as a Mechanism for Rewarding “Good Water Management”
- Reward “Good Domestic Management” and Penalise “Poor Domestic Management”

Elements of Constructive Trade Regime

- Schedule of Principles of Good Water Management
- Auditing Mechanism for Certification of Good Water Management Practices (e.g. Secretariat-based auditing principles and actors)
- Penalties for Poor Water Management Practices (e.g. non-trade status)

Example of Moves toward Constructive Trade Regime (CITES)

- CITES had been based around either ban of specific species in trade or allowance of that trade
- Increasing recognition of role of management in determining status of species (e.g. South Africa had 0% loss while Tanzania had 75% loss of elephants in 1980s)
- Allowance of trade in ivory from “good management states” and disallowance of trade in ivory from “poor management states”
- Certification of particular states as “good

Examples of Moves toward Constructive Trade Regimes (Basel)

- Requiring adoption of basic apparatus for trade regime
- Development of basics for sovereignty

Examples of Moves (Montreal)

- Incremental Cost
- Payment for movement to good management